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Contributions are invited on the Natural History, Antiquities, Archaeology or Geology of South-West Scotland or the Solway Basin and preference is always given to original work on local subjects. It may also be possible to provide space for Industrial Archaeology. Intending contributors should, in the first instance, apply to the Editors for "Instructions to Contributors". Each contributor has seen a proof of his paper and neither the Editors nor the Society hold themselves responsible for the accuracy of scientific, historical or personal information.

A copy of the Rules passed at the Special General Meeting on 4th May, 1977 appeared in Volume 52 and a list of members appears in this volume.

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Limited grants may be available for excavations or other research; applications should be made prior to 28th February in each year to the Secretary. Researchers are also reminded of the existence of the Mouswald Trust founded by our late President Dr. R. C. Reid. Applications for grants from the Trust, which are confined to work on the Early Iron Age, Roman, Romano-British and Early Christian periods should be made to Primrose and Gordon, Solicitors, Irish Street, Dumfries.

This Volume is made with the assistance of a generous Carnegie Grant. The Council is also indebted to the Scottish Development Department and the Mouswald Trust for grants towards the publication costs of Mr Roger Mercer's and Mr D. William's articles respectively.

FIELD GUIDE TO THE PERMIAN ROCKS OF THE THORNHILL AND MOFFAT BASINS

by

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This guide continues an earlier one on the Dumfries and Lochmaben basins (Brookfield, 1977) to which reference should be made for terms used and a general outline of Permian deposition.

The maps needed for the Thornhill and Moffat basins are the 1" to 1 mile Ordnance Survey topographic sheets 68 (Biggar, Moffat and Sanquhar), 69 (Selkirk) and 74 (Dumfries). Grid references are given for each locality. Geological Survey maps at a scale of 1" to the mile area available for sheets 5 and 9 (Thornhill basin, northern part of the Moffat basin). Air photos are available from the Scottish Development Office, Edinburgh.

Always ask permission, if possible, from the nearest farm or house for access.

THORNHILL BASIN

This basin contains Carboniferous sediments unconformable on Lower Palaeozoic sediments, and unconformably overlain by Permian lavas, breccias, sandstones and clays. Erosion initially scooped out a depression in the softer Carboniferous sediments, and a few thin breccias were laid down before faulting and eruption of basaltic lavas commenced, together with the development of desert conditions — as shown by the incorporation of well-rounded 'millet-seed' aeolian sand within some of the lava flows (Simpson and Richey, 1936). Faulting continued and pediments were developed on the eastern side of the Thornhill basin, over which streams flowed towards the south-west. Large incised streams carried debris out into the basin centre where large sand dunes were developing. In contrast to the other basins, the Dumfries and Lochmaben basin, temporary desert stream and lake deposits can be seen in some areas. Eventually, continued deposition led to the burial of the pediments, probably together with scarp retreat and wearing down of the adjacent mountains, and sand dunes developed over the whole basin. A younger phase of alluvial fan formation can not be seen in the Thornhill basin, though prominent in the other basins.

Northern Thornhill basin

25. Section on left bank of river Nith at Cairnpark (NX 863 988).

This section shows about 1.5 metres of thin basal Permian breccia between Carboniferous sandstones below and Permian lavas above. Note the absence of lava pebbles and aeolian sand — showing that desert conditions had not yet been established nor lava eruptions started. The overlying 6 metres of Permian basaltic flows shows extensive decomposition and the development of large gas holes (now filled in with minerals forming amygdales).

Access: From Thornhill take the A76 north: about 5 km. on turn left onto the road to Drumlanrig Castle; turn left just over the Nith bridge and proceed for about 1.5 km. Park and walk east to the outside meander of the Nith.

Time: ½ Hour.

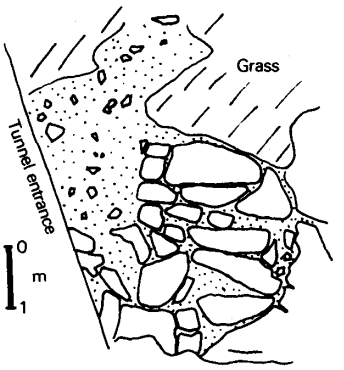

Fig. 1. Weathered basalt blocks (blank) forming desert cliff against which desert sand (dotted) is banked and which also infiltrates the spaces between the basalt blocks (NS 875 018).

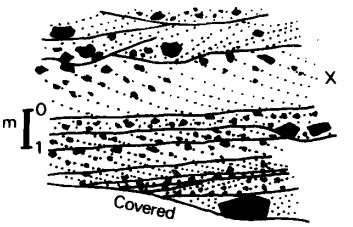

Fig. 2. Stream channel deposits at NS 888 023 showing channelling, large basalt blocks and, at X, a sand dune deposit filling in the margin of the channel.

26. Basalt lava flows in Drumlanrig railway cutting (NS 875 018).

This section shows two 1.5 metre thick lava flows. Near the tunnel entrance these have been downcut by Permian erosion and sand dune sediments banked up against an old Permian cliff. Note especially the deep weathering along joints in the lavas (fig. 1).

Access: At Carronbridge, north of Thornhill, take the A702 north: after 3 km. you will go under a railway bridge. Almost immediately turn left onto a side road to the old station. Park and walk about 0.5 km. north-west along the railway cutting to the tunnel entrance.

Time: 1 Hour.

27. Basal Permian breccias, lavas and overlying pediment stream deposits along Kirk Burn (NS 888 023 to NS 885 017).

This section shows first, at NS 888 023, a section of Permian stream channel deposits interbedded with sand dune deposits which overlie the lavas, on the left bank of the Kirk Burn. Downstream a gorge is cut into amygdale bearing lavas (NS 887 022). Where the gorge widens out at NS 888 020, a thick, 5 metre, section of the basal breccias is exposed.

Note (fig. 2), the large basalt blocks and interbedded dune sandstones of the stream channel deposits; the eroded tops of the basalt flows overlain by desert pavement deposits of angular basalt pebbles and coarse sand; and the absence of basalt pebbles in the fine-grained basal breccia deposits.

Access: from loc. 26 turn left onto the A702 north; after 1 km. turn right onto the Durisdeer road. Proceed for 0.3 km. and park at the bridge over the Kirk Burn. Descend to the left bank and walk along the stream.

Time: 1 Hour.

28. Stream channel deposits and sand dune developed in the wind shadow of basalt knolls and within the stream channel; at Durisdeermill (NS 882 041).

This section (fig. 3) shows stream channel deposits of a pediment channel incised into basalt and with sand dunes developed in the shadow of a basalt knoll. Note especially the dunes and the large blocks, eroded from the sides of the channel and deposited with large-scale cross-bedded river sands containing reworked well-rounded 'millet-seed' dune sand.

Access: Return to A702 from loc. 27; turn right and proceed for 2 km. Just past Durisdeermill turn left onto a farm road and park. Walk down the Carron water for 0.1 km. The exposure shown on fig. 3 is on either side of a small waterfall.

Time: ½ Hour.

29. Exposures of temporary lake deposits, East Morton (NS 883 005)

In the banks of a small stream an exposure of about 7 metres total thickness of fine-grained sandstones, siltstones and silty clays represent one of the few indications of temporary standing water in the desert basins. The sediments are red and purple and much disrupted, possibly due to post-depositional solution of minerals precipitated by evaporation when the lakes dried up. On some clay surfaces, thin layers of coarse well-rounded 'millet-seed' sand indicate that at times sand was blown across the flat surfaces of the dried up lakes. The lake sediments are underlain and overlain by dune sandstones.

Access: 2 km. north of Carronbridge on the A702, turn east on a small secondary road: after 0.6 km. turn left at a crossroads and proceed for 0.6 km. Cross a small burn and park; then walk down to the south-west about 0.1 km. to the rather scrappy exposures on the left bank of the burn.

Time: ½ Hour.

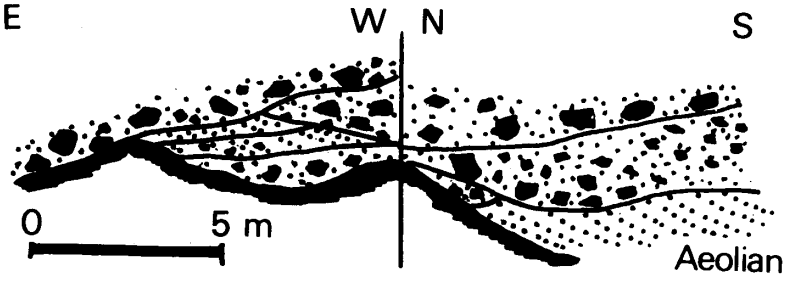

Fig. 3. Very large pediment channel, showing large-scale cross-bedding and huge basalt blocks. Note sand dune filling of base of channel, behind wind shadow of basalt knoll. Right side of figure is aligned north-south and is below waterfall; left side is aligned east-west above waterfall.

Southern Thornhill basin

30. Dune sandstones overlying Carboniferous sediments at Crichope Linn (NX 908 954 - NX 917 952).

This section shows dune sandstones directly on the Carboniferous without any lavas or breccias beneath. Since lavas and breccias occur to the north (at loc. 31) it seems that erosion must have removed them at loc. 30 before the dune sandstones

were laid down. Possibly this area represents an up-faulted block showing that tectonic activity continued during the widespread development of desert conditions in the Thornhill basin.

The basal dune sandstones show very coarse-grained sandstones, representing lag accumulations on a wind-scoured surface. Above are typical large-scale cross-bedded dune sandstones separated by thin relatively uniform surfaces representing the interdune depressions; sometimes with clay deposits from temporary lakes between.

Access: 3.5 km. south of Thornhill, at Closeburn on the A 76, turn east over railway bridge: after 0.3 km. take first road left. Proceed for 3 km.: park where Crichope Linn bears away from road. Walk 0.5 km. east up burn to start of Permian sandstone exposures; you may examine the Carboniferous on the way.

Time: 1 Hour.

31. Basal breccias, lavas, dune sandstones and desert floor ephemeral stream and lake deposits, along Cample Water, north of Gatelawbridge.

This location involves a number of isolated exposures which are lettered successively, and shown on fig. 4.

31A. Ephemeral stream and lake deposits (NX 907 982).

Along the right bank of the Cample water are about a total of 8 metres of fine-grained sandstones, siltstones and clays, as at loc. 29. Although only about 3 metres is usually exposed; in contrast to loc. 29, you can see units which become finer from base to top: these are typical of desert floor ephemeral stream in the area.

31B. Dune deposits below the ephemeral stream deposits (NX 905 980)

These occur both above and below and interbedded with the ephemeral stream deposits. You should imagine a flat desert surface over which sand dunes are migrating, with dry broad stream channels winding between the dunes and often becoming choked with dune sand. Periodically flash floods from the adjacent hills would transform the dry channels into raging torrents when the fining upward sand units would be deposited in the channels and the siltstones and clay in temporary lakes within and adjacent to the channels as the flood waned.

31C. Basalt lavas below 31B (NX 905 977).

Below the dune and stream deposits, two lava flows show extensive weathering, and the formation of desert soils with wind-facetted pebbles on top of the lava flows.

Access: From Crichope Linn, continue north on the secondary road for 2.5 km.: the road makes a sharp left. Proceed for 0.8 km. and park across the bridge over the Cample Water. Loc. 31A is just north of the road extending for about 0.1 km., loc. 31B is 0.2 km. south of the road, and loc. 31C about 0.2 km. south of 31B.

Time: 1 Hour.

Locherben outlier

This small area contains strata similar to those of the main Thornhill basin; but also forms the first of a series of scrappy exposures connecting it to the Lochmaben basin (see Brookfield, 1977). The Permian strata lie unconformably on Carboniferous and earlier rocks on the west and are faulted down against Lower Paleozoic rocks on the east.

32. Basal Permian breccias and lavas (NS 952 971).

Here a small section shows, from base to top:

(a) Fine-grained white mottled sandstone (Carboniferous) — 30 cm.

(b) Fine granular conglomerate with abundant pebbles of vein quartz and a few larger decomposed basalt pebbles (basal Permian breccia) — max. 1 metre.

(c) Very poorly sorted breccia with basalt fragments in a clay-rich matrix — about 40 cm.

(d) ? Decomposed basalt — about 60 cm.

(e) Blocky basalt flow, with extensive decomposition along cracks — 1 metre.

Access: From loc. 31 recross Cample Water bridge proceed east for 0.4 km. turning left towards Townhead farm. Proceed for about 5 km.: park and descend to Garnock water (about 0.3 km. before Locherben farm).

Time: ½ Hour.

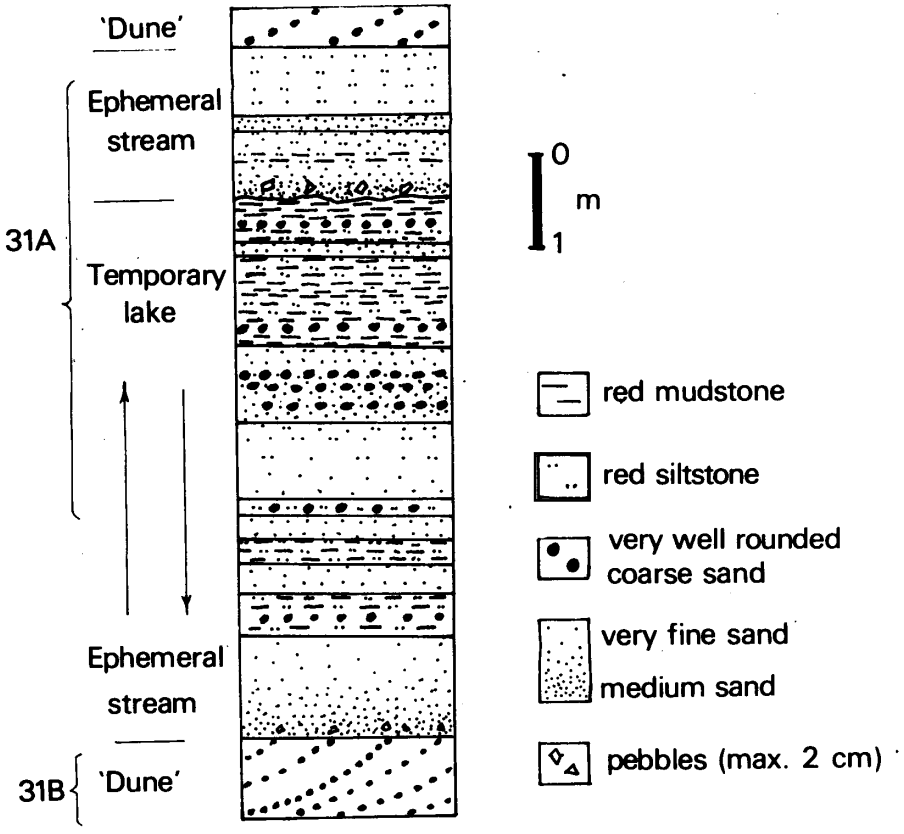

Fig. 4. Ephemeral stream and temporary lake deposits, interbedded with dune sands (NX 907 982).

33. Breccias overlying basalt near Locherben farm (NX 960 967)

The beds here consist of red sandy well-sorted breccias with relatively small angular pebbles, mostly of Lower Palaeozoic greywacke. The breccias are arranged in tabular units about 0.5 metres thick and are often graded, with the coarser material concentrated at the base. Occasional large (up to 10 cm.) pebbles of basalt occur. These deposits are probably mostly sheetflood sediments.

Access: From loc. 33 proceed east for 1 km.; park and descend to the Garnock water.
Time: ½ Hour.

34. Sand dune deposits overlying breccias in Capel Burn east of Locherben farm (NS 967 973 to NS 964 968).

Here very fine-grained tabular sheetflood breccias are interstratified with and pass up into thick relatively coarse dune sands showing typical large scale cross-bedding. This is one locality where the widespread development of desert conditions after deposition of the pediment breccias can be seen.

Access: From locality 33, proceed south-east along road for 0.5 km. turn left over bridge into Mitchellslacks farm. Park, and walk about 0.7 km. north along farm track to Capel burn. Proceed up the burn examining the breccias and succeeding dune sandstones.
Time: 1 Hour.

35. Permian-Lower Paleozoic unconformity in Windyhill burn, northernmost exposure in Lochmaben basin (NX 962 930).

This locality is a further addition to the Lochmaben ones described in 1977. It is worth visiting if you are proceeding from Locherben to the Moffat basin.

Here, coarse breccias can be seen directly overlying Lower Palaeozoic steeply dipping greywacke. The abundant wind-facetted basalt pebbles show that here sediment was being supplied from the north and north-west — from the Thornhill area.

Access: From Mitchellslacks (loc. 35), proceed south-west for 3 km.; turn left; after 1.5 km. turn left on forest road, proceed for 0.2 km., cross small bridge and park. Exposures are next to parking area and in small cliffs in the burn.
Time: ½ Hour.

MOFFAT BASIN

This basin, though poorly exposed, contains a number of interesting features not found elsewhere. The basin is fault-bounded on the east with the Permian deposits *apparently* unconformable on the Lower Palaeozoic rocks on the west. Exposures are practically confined to the eastern edges of the basin where Permian scree deposits can be seen banked up against the eastern boundary faults. These scree deposits are overlain by thin desert floor ephemeral stream deposits and dune sandstones, which in turn are overlain by thick alluvial fan deposits comparable to those of the Dumfries basin.

A general history can be reconstructed as follows. First, faulting along the eastern side of the Moffat valley led to development of a long narrow, north-south aligned trough. From the eastern side scree deposits passed into a flat desert floor over which ephemeral streams migrated, draining highlands to the north. Secondly, with gradual wearing down of the adjacent highlands, the desert floor sand dune extended outwards over the earlier scree and stream deposits. Lastly further extensive faulting along the eastern margin led to the development of extensive alluvial fans extending westwards from the highlands and overlying all earlier deposits.

Some evidence for an earlier Carboniferous phase of sedimentation can be seen at one locality (loc. 39C), though most of the Carboniferous had been removed prior to Permian sedimentation — if it was ever deposited.

Northern Moffat basin

36. Section of scree, ephemeral stream and sand dune deposits near Corehead (NT 077 124 to NT 079 125).

This section is exposed in a small burn east of Corehead farm. Here, the basal scree deposits can be seen banked up against the eastern boundary fault. The scree consists of massive completely unsorted breccias, with occasional very large blocks. Downstream, they pass up into fine-grained sandstones with layers of clay pebbles and rounded greywacke pebbles representing the ephemeral desert floor streams: these in turn pass up into fine-grained cross-bedded dune sandstones, showing ancient winds blowing from the north-east.

Access: Start at junction of A708 and A701 in Moffat: proceed north for 0.5 km. on A701; just past the church bear right on secondary road: proceed for 6 km. to Ericstane farm. If possible continue north on dirt road for 1.5 km. to Corehead farm. Park and walk 0.6 km. east to stream. Proceeding up the stream you come successively to dune sands, stream deposits and scree deposits.

37. An almost identical location to loc. 36 can be seen further south in the Auchencat burn, except that here some breccias overlying the dune sands can be seen (NT 076 104).

The breccias consist of thick tabular debris flow deposits between 20 and 80 cm. thick and contain relatively abundant very well rounded 'millet seed' dune sand, especially in thin sandstones which often form the tops of individual debris flows.

Access: From Corehead (loc. 36) return south: park 0.5 km. south of Ericstane farm at the bridge over the Auchencat burn. Proceed upstream for 0.2 km. to breccia exposures.

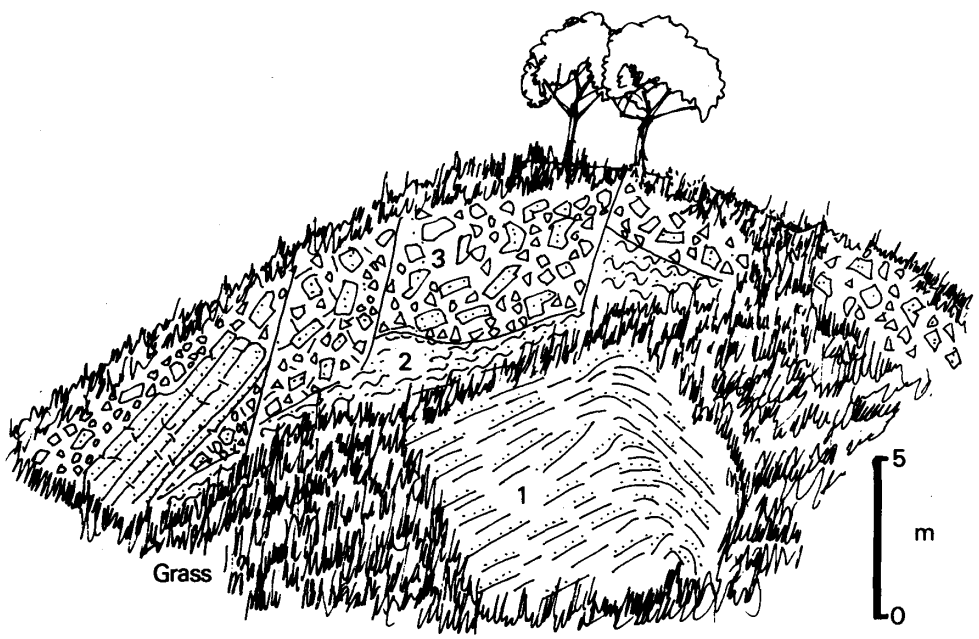

Fig. 5. Scree deposits unconformable on Lower Palaeozoic greywacke: note large block on left. 1 - Lower Palaeozoic greywacke. 2 - Weathered greywacke. 3 - Permian scree deposit. (Loc. 37: NT 083 105).

If you want to see the dune and scree deposits, continue upstream for 0.5 km., where a good exposure shows scree deposits (one block about 20 metres long) unconformable on steeply dipping Lower Palaeozoic rocks (fig. 5).
Time: ½-1 Hour.

38. Breccias at Archbank, north-east of Moffat (NT 092 068)

Here coarse, poorly sorted debris flow and stream channel breccias are exposed in the gorge of the Birnock Water. Imbrication is occasionally well developed in the stream channel deposits. The debris flow deposits are arranged in tabular units up to 1 metre thick.

Access: Junction of A708 and A701 in Moffat: take A708 east; turn left after 1 km. Proceed for 0.5 km. to T junction: turn left and continue for 1.5 km. Park just across bridge over Birnock Water and walk downstream for 0.1 km. to exposures.
Time: ½ Hour.

Southern Moffat basin

Only the upper breccias can be seen here. The only good exposure is a section at Belcraig Linn.

39. Stream channel, braided stream deposits and Carboniferous at Belcraig Linn (NT 110 014 to NT 117 012).

A. Proceeding up the gorge at Belcraig, at NT 110 014 you can see the stream-flood and braided stream channel deposits shown on fig. 6. Note especially the large scale cross-bedding and the deformation of the soft cross-bedded sediments by later deposition.

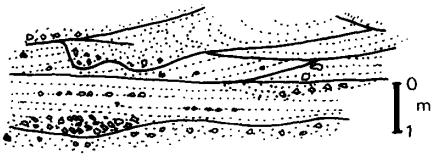

Fig. 6. Braided stream overlain by streamflood breccias, Belcraig Linn, loc. 39A (NT 110014).

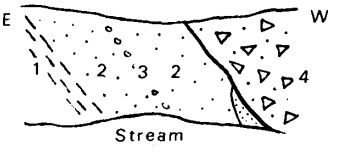

Fig. 7. Section in left bank of stream (NT 117 012), loc. 39C. 1 - red mudstone: 2 - white sandstone: 3 - conglomerate: 4 - Permian breccia. Height of Bank 1 metre.

B. Further upstream, at the waterfall, an inaccessible section shows the interbedding of stream channel breccias and sandstones (NT 113 014).

C. Above the waterfall at NT 117 012, on the left bank of the stream, the Permian breccias can be seen unconformably overlying white sandstones and red mudstones, which are probably Carboniferous in age (fig. 7), and these can be seen unconformably overlying Palaeozoic greywacke.

It would be very useful for someone to obtain fossils to confirm the Carboniferous age of the white sandstone and red mudstone. If you find any fossils, either here or in other exposures, please take them to the Dumfries museum: so few fossils have been found in any Permian rocks, that anything is of interest.

Access: From Moffat, junction of A708 and A701, take A708 east: after 0.8 km. turn right. After 1 km. bear left at Y intersection: continue straight for 0.8 km.; then bear right onto secondary road to Lockerbie. After 2 km. turn left on minor road to Breconside farm: continue for 0.5 km. to sharp bend in road. Park and descend to south-east to Breconside burn.

Walk east for 0.4 km. to stop 39A. Climb up side of gorge; walk along northern edge of gorge to waterfall, stop 39B. Follow burn for 0.5 km. to stop 39C. Time: 2 Hours.

I hope this and the earlier field guide on the Dumfries and Lochmaben basins will be of use. If you have any questions, or have found something you think is interesting, please write to me. Since I have little opportunity of visiting the area at present, I would be interested in hearing of any finds or new localities you may come across.

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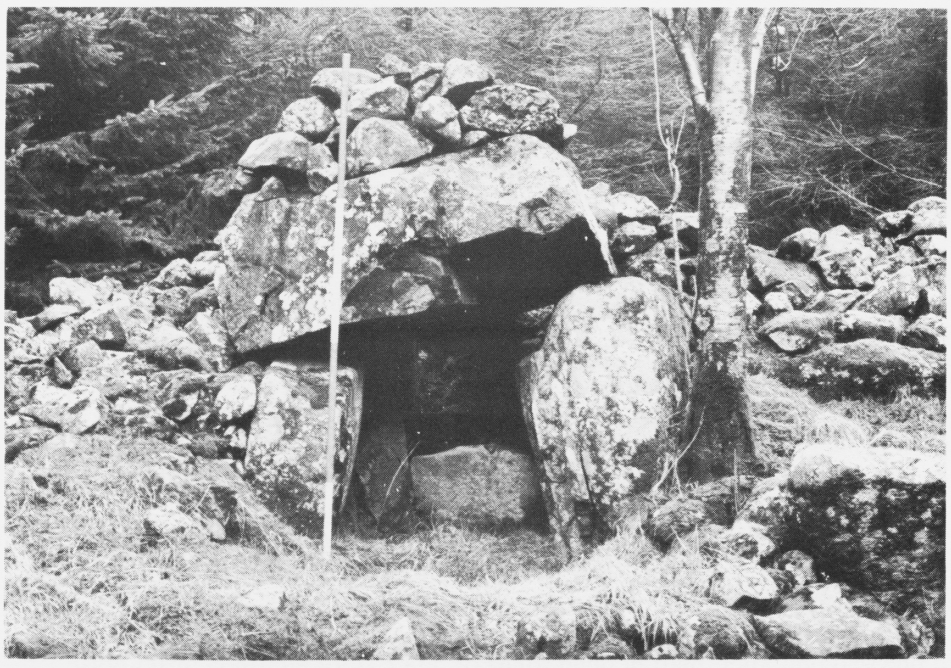
THE DRUID'S GRAVE, KYLE AND CARRICK DISTRICT, STRATHCLYDE REGION : THE REDISCOVERY OF A CHAMBERED TOMB

by
Lionel J. Masters, M.A., F.S.A., F.S.A. Scot.

In an account of the picturesque journey along the Balloch Burn and over the Nick of the Balloch, a minor road which links south Ayrshire and north Galloway, J. M'Bain described a visit which he made to an 'antiquarian relic', now recognisable as a chambered tomb (1929, 120-121). His description is as follows:

> 'Situated in the valley there is an antiquarian relic well known in the district as the Druid's Grave, which is worth directing attention to, as few outsiders are aware of its existence. I was on a late occasion driven up the Nick in his motor car by a friend who pointed out the relic to me. It appears to be situated on the Witches' Brae, a short distance up the slope on the left-hand side of the road coming up, and about a mile and a half from the lower entrance to the glen. We found the so-called grave at the corner of a broken-down litter of dry-stone walls, and it consists of a little cave-like cell within which a man might sit up. It is wholly above ground, has for its two sides heavy slabs of whinstone placed upright, and across these and resting on them by way of a roof, a naturally irregular block of whinstone, perhaps a ton in weight, the back and floor being composed of smaller stones.'

After some speculation concerning the date and purpose of the monument, the description concludes :



Pl. I : Druid's Grave, south end of chamber, from south; scale in 0.50 m divisions (Photo: L. J. Masters)

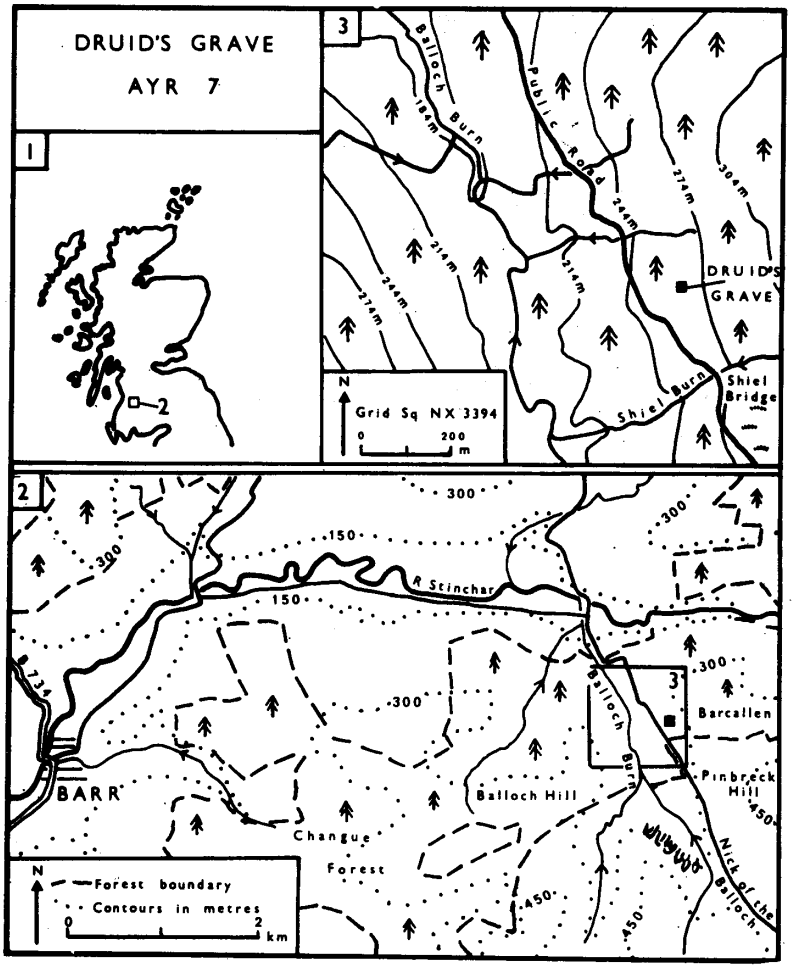


Fig. 1 : Druid's Grave, Location Maps

'The relic is within a stone s-throw of the road, there is a dry-stone wall leading up to it, and it could not be missed by any one desiring to see and examine it.'

Although apparently well known to the locals in the 1920's, it appears to have escaped the notice of prehistorians, for it was not included in the records of the Ordnance Survey Archaeology Branch or the National Monuments Record. The credit for its rediscovery is due to the persistence of two Glasgow University extra-mural students, Dr. and Mrs J. Whetstone of Newton Stewart. Unable to find any further information on the site, they followed M'Bain's description and were finally able to locate the site, not on the present unafforested Witches' Brae, but a little to the north on the west slope of Bencallen, within a small clearing in a Forestry Commission plantation. The writer is most grateful to Dr. and Mrs Whetstone for bringing the site to his attention, and for taking him to visit it. The site was also recognised by Mr D. Hawkes, Chief Forester at Barr, following an archaeology course given by the writer for Forestry Commission personnel. A brief account of the rediscovery has previously been published (Masters 1976, 21).

The Druid's Grave (AYR 7, following the system of numbering established by Powell *et al* 1969) is located some 6 km east of the village of Barr, in the Kyle and Carrick District of Strathclyde Region (NG Ref. NX 33789440) (Fig. 1). It is situated on the west slope of Bencallen (346 m) at an altitude of 265 m above O.D. The modern north/south road, from the headwaters of the River Stinchar through the Carrick Hills, to the headwaters of the River Minnoch and the west side of the Merrick range, passes just to the west of the site before climbing to the summit of the Nick of the Balloch, about 2 km south of the Druid's Grave. The immediate countryside is characterised by moderately high hills, the lower slopes of which are now afforested, leaving only the land above 400 m for rough grazing.

The site is best approached from the public road at a point about 150 m north-west of Shiel Bridge (Fig. 1). Here a forestry ride joins the road on its east side. About 100 m into the forest the sheepfold, in which the tomb is incorporated, may be

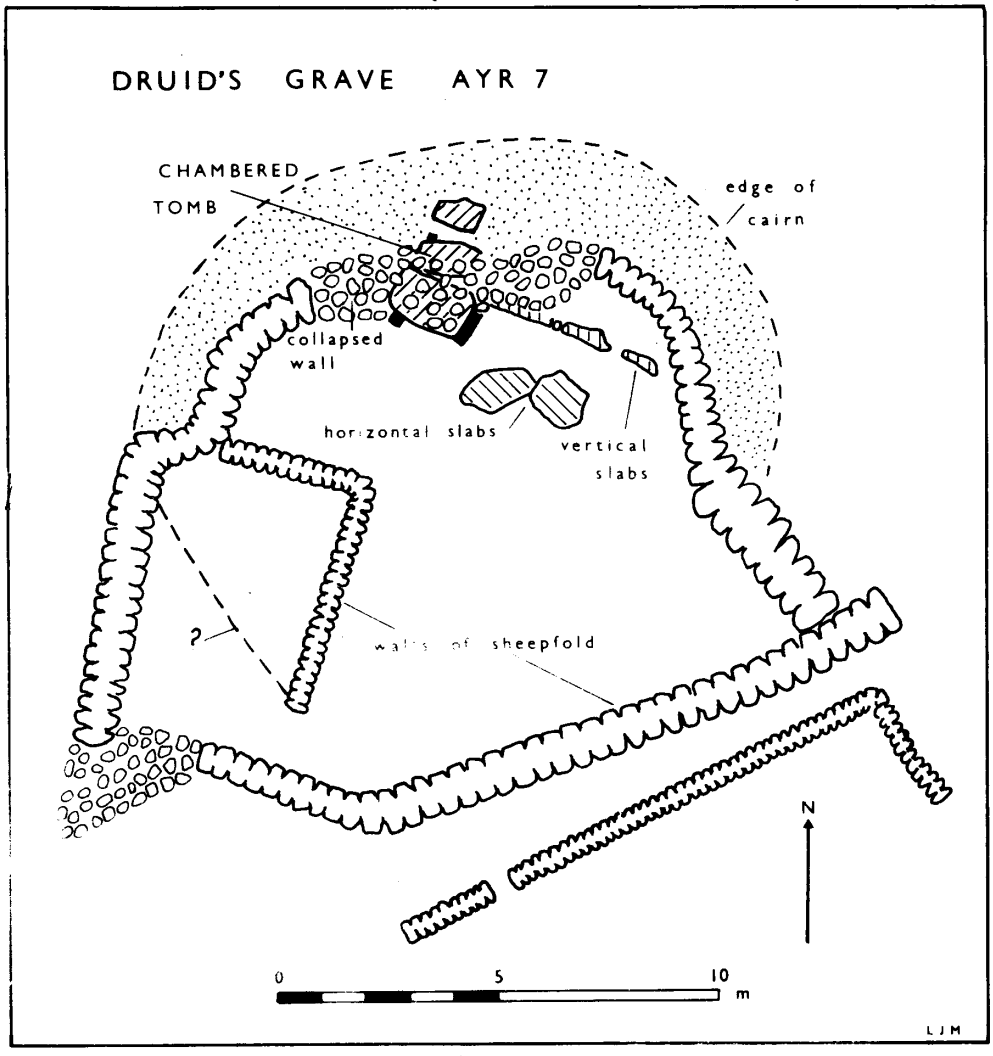


Fig. 2 Druid's Grave. Plan of main structural features and sheepfold.

Pl. II : Druid's Grave, horizontal slabs (to left), vertical slabs (to right); scale in 0.50 m divisions (Photo : L. J. Masters)

seen in a small clearing to the north of the ride immediately after crossing a collapsed drystone wall. The sheepfold is at present closely surrounded by mature trees.

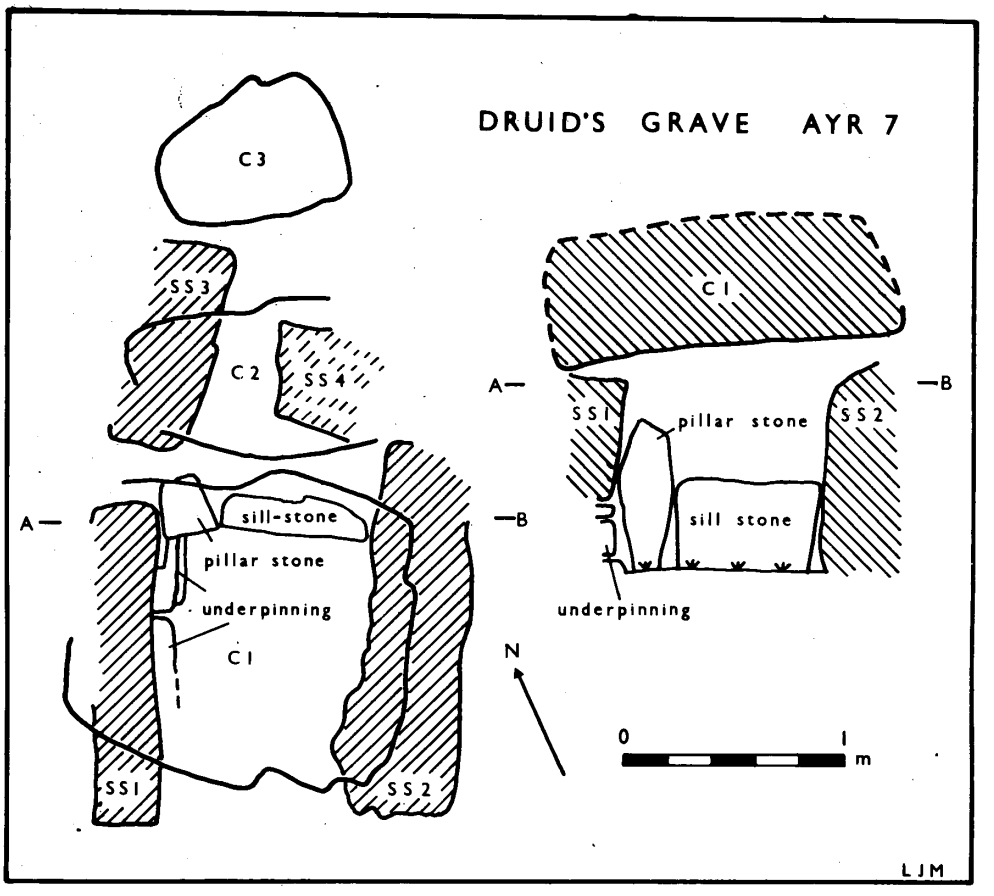


Fig. 3 : Druid's Grave, Plan and section of chamber.

Although there are other features which M'Bain did not note, the main visible structure of the chamber is still much the same as he described it over fifty years ago. M'Bain's 'cave-like cell' comprises SS1 and 2, together with C1 (Fig. 3; Pl. I). To this may be added a further pair of orthostats (SS 3 and 4), two capstones (C 2 and 3) and a sill-stone and pillar stone. Additionally, the remains of a cairn are detectable, together with a line of three vertical slabs at right angles to the east side of the chamber, and two horizontal slabs lying south-east of the chamber (Fig. 2; Pl. II).

The **cairn** is best preserved outwith the north wall of the sheepfold (Fig. 2). Covered in mossy vegetation, it rises gently to a height of 0.70 m before being obscured by the sheepfold wall. There are no indications of a kerb. Elsewhere, the cairn has been greatly disturbed by the construction of the sheepfold, and it is not possible to indicate with any certainty what the southern limits might be. However, within the rectangular enclosure on the west side of the sheepfold, the present slope of the ground downward from north-east to south-west may indicate the curvature of the cairn edge. On this basis the southern limit of the cairn would lie close to the main south wall of the sheepfold, thus making the cairn oval or almost circular on plan, with diameters of 15 m east/west and 13 m north/south. The interior of the sheepfold is covered in vegetation, but its generally irregular appearance suggests that some

basal cairn material may still be preserved *in situ*. The sheepfold walls contain numerous rounded boulders up to 0.40 m in length, but there are also some more substantial blocks and slabs.

The **chamber** is partially incorporated into the now collapsed north wall of the sheepfold, which was constructed over the tops of the two main capstones (Fig. 2; Pls. I and II). It is likely that some cairn material will be preserved to either side of the chamber under the collapsed sheepfold wall. The chamber consists of four visible orthostats supporting two capstones, with a probable third capstone at the northern end (Fig. 3). It is orientated north-north-east/south-south-west. The maximum length is about 3.50 m, with a maximum width at the south end of 0.90 m. The height of the chamber from the present ground level to the underside of C 1 is 1.10 m. The entrance to the chamber would have been from the north end, but there are no clear indications of an entrance in the vegetation-covered cairn material. If entry was gained below C 3, then the passage is likely to be very low, probably not more than 0.50 m in height to judge by the surviving cairn material. The southern half of the chamber has been extensively disturbed. It is divided from the northern half by a sill-stone 0.62 m long and 0.40 m high. This stone does not completely span the chamber, and the resulting gap is filled by a pillar-like stone 0.70 m high (Fig. 3; Pl. I). The pillar stone partially overlaps the gap between SS1 and 3, whilst the sill-stone abuts SS 2 near its northern end. North of this division the chamber is partially filled with rounded boulders. These may represent an original chamber filling, though it is more likely that they could have been introduced during the construction of the sheepfold.

With regard to the main structural remains of the chamber, SS 1 is a substantial block measuring 1.44 m in length and 0.30 m in width. Its height varies from 0.86 m at the south end, to 0.54 m at the north, where it is underpinned by three layers of drystone walling in order to keep the top surface of the stone level. SS 2 is an even more substantial block, 1.68 m long, 0.58 m wide and 1.10 m high. The inner face bears a number of vertical parallel ridges, which are probably of natural origin. These two orthostats support C 1, a massive block measuring 1.60 m by 1.42 m and 0.60 m thick. The capstone rests directly on the level top of SS 1, and the more pointed top of SS 2. Because of the chamber filling north of the sill-stone, it is not possible to determine the exact nature of the structural remains here. SS 3, however, is about 0.94 m long by 0.32 m wide at its south end. SS 4 has partially collapsed into the chamber, resulting in the displacement of C 2, and only the top is visible through the filling of rounded boulders. Parts of C 2 are covered by the collapsed sheepfold wall, but it is at least 1 m in length, and 0.70 m in width. North of C 2, but separated from it by a gap of 0.40 m, is a further slab, 0.85 long by 0.60 m wide, which is almost certainly a capstone (C 3). No indications of orthostats directly below it are visible.

Immediately south of SS 1 and 2 is a hollow, which could have resulted from the removal of a backstone. Alternatively, the chamber may originally have been somewhat longer, though this is less likely on present evidence. The two **horizontal slabs** lying to the south-east of the chamber do not appear to be *in situ* (Fig. 2; Pl. II). Both are of a size and shape suitable for chamber construction. The western stone measures 1.77 m by 0.62 m, and is about 0.50 m thick. The eastern stone is 1.15 m by 1.10 m, and is also about 0.50 m thick. One or other of these stones might have been used to form the back of the chamber, or they may both have formed part of the elongated chamber suggested above. It is impossible to resolve this point without excavation evidence.

The final structural feature comprises a line of three earthfast **vertical slabs** (Fig. 2; Pl. II). Whilst it is possible that these may be connected in some way with the sheepfold, it seems more likely that they should be associated with the cairn. The total length of the line is 4.14 m. It is set approximately at right angles to the main axis of the chamber, and almost in line with the sill-stone. The western slab is 1.60 m long, 0.22 m wide, and projects 0.30 m above the present ground surface. Its western end abuts the outer face of SS 2, and the slab is partially covered by the collapsed sheepfold wall. A gap between this slab and the central slab is filled by a small boulder. The central slab measures 1.10 m by 0.35 m, and projects above ground to a height of 0.35 m. There is a gap 0.25 m wide between the central and eastern slab, which is 0.95 m long and 0.20 m wide. There is some difficulty in accounting for this particular feature. The slabs have every appearance of being the side-stones of a second chamber, despite the probable low elevation of such a structure if the capstones rested directly on the top of the side-stones. On this basis the two horizontal slabs might be considered as capstones, or the disturbed remains of the other side wall. Alternatively, the vertical stones may be no more than an internal wall-face or division within the cairn, such as has been noted at Cuff Hill (AYR 5), although here the slabs forming the walls are laid horizontally (Henshall 1972, 401). As with the two horizontal slabs, it is impossible to offer any firm conclusions on this anomalous feature in the absence of excavation evidence.

The main features visible at the Druid's Grave suggest that the site should be included in the Bargrennan group of passage graves (Henshall 1972, 2-14). The oval, or almost circular, cairn, and the tendency of the chamber to increase in width from the putative north entrance (indicated by the alignment of SS 3 and the smaller size of C 3 in comparison to C 1 and 2), together with the suggestion that the passage is likely to be low in elevation at the entrance, all support such a conclusion. Sill-stones at other Bargrennan type sites have been noted in the south-west chamber of Cave Cairn (AYR 4), and in the eastern and western chambers of the somewhat more aberrant site of Caves of Kilhern (WIG 6) (Henshall 1972, 10). The location of the Druid's Grave extends slightly further northwards the compact distribution pattern of this type of monument in northern Galloway and Carrick, for it is only some 10 km north of the two cognate sites of King's Cairn, Kirriemore (KRK 10) and Sheuchan's Cairn (KRK 11) (Henshall 1972, 4-5, Map 1). If the suggested evidence for more than one chamber at the Druid's Grave should prove to be correct, there is plenty of evidence for multiple chambers within the Bargrennan group. Indeed, of the twelve certain or probable examples cited by Henshall, at least half can be shown to contain more than one chamber. There is, however, no evidence from within the group for two chambers at right angles and in contact with each other. Nevertheless, the growing body of evidence for multi-period construction and reconstruction of chambered tombs, both from fieldwork and excavation, is indicative of the wide range of possibilities for the interpretation of enigmatic features. In the case of the Druid's Grave, only excavation may help to resolve some of the more puzzling aspects of this interesting site.

Acknowledgements: In addition to my thanks to Dr. and Mrs J. Whetstone, I should also like to thank Mr J. Palmer, formerly Archaeology Division, Ordnance Survey, for the survey plan on which Fig. 2 is based, and Mr P. Ashmore, Scottish Development Department (Ancient Monuments), for his prompt response to the request to have the site scheduled. The Forestry Commission have kindly agreed that when the area is replanted, a *cordon sanitaire* of 20 m will be left unplanted around the edge of the sheepfold.

References:

HENSHALL, A. S. 1972, *The chambered tombs of Scotland* 2, Edinburgh.
M'BAIN, J. 1929, *The Merrick and the neighbouring hills,* Ayr.
MASTERS, L. J. 1976, 'Druid's Grave' in *Discovery Excav Scot* for 1976, 21.
POWELL, T. G. E. *et al* 1969, *Megalithic enquiries in the west of Britain,* Liverpool.

THE STONE CIRCLES OF WIGTOWNSHIRE

by
Jane Murray

Summary

This paper aims at discussing all the sites in Wigtownshire which have been considered as being possible remains of Stone Circles, with particular reference to the Inventory by the Royal Commission on Ancient and Historical Monuments of 1912.[1] It concludes that the Commission tended to offer over-elaborate interpretations of groups of standing stones, as has recently been shown to be the case at the Wren's Egg,[2] listed in the Inventory as the remains of a double concentric circle. It re-examines the Commission's other "double concentric circle", the Standing Stones of Glentirrow, and suggests that these stones may instead be a small Four Poster, of the type well-known in Perthshire.

The Wren's Egg

Lionel Masters' recent excavation at Blairbuie has shown that a circle is unlikely to have existed around the large glacial erratic known as the Wren's Egg (No. 12 NX 361420). Masters attributes the classification of the site as a double concentric circle to Mr Fitzgerald of the Office of Works, who visited it in 1908. A similar account had, however, already been published in 1870 in the first edition of M'Kerlie's "History of the Lands and their Owners in Galloway"[3]. M'Kerlie wrote: "On the farm of

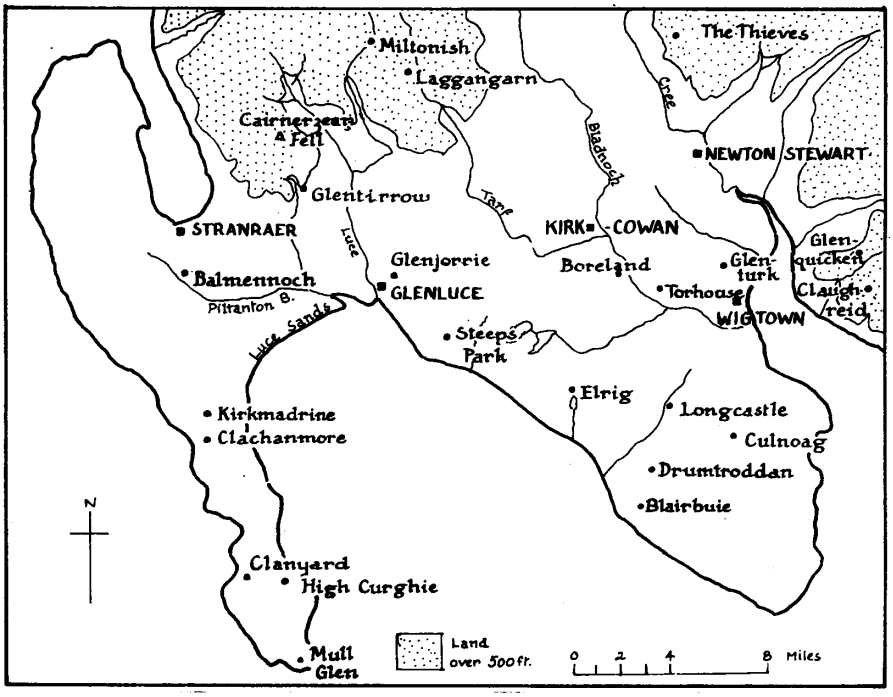


Fig. 1. Map of the Area, with sites mentioned in the text.

1. *The Royal Commission on Ancient and Historical Monuments of Scotland.* Fourth Report and Inventory of Monuments in Galloway. Vol.I County of Wigtown 1912. Inventory Numbers are quoted after the names of Wigtownshire sites, together with the National Grid Reference Number.
2. MASTERS, L., "Excavations at the Wren's Egg, Port William, Wigtown District", *T.D.G.N.H.A.S.* LII 1976-7 p. 28-43.
3. M'KERLIE, P. H., *History of the Lands and their Owners in Galloway,* 1st ed., 1870 Vol. I p. 505.

Blairboy some fifty years ago, was a double circle of large stones, with one flat-topped stone in the centre. All have been long removed, except the centre stone, and one stone of each of the circles". This account was undoubtedly influenced by early antiquarian ideas on Druid Circles. For example, William Mackenzie in his "History of Galloway"[4] recounted that stone circles, or sometimes two or three concentric circles, were set up to contain Druidical assemblies, and often had a stone altar fixed in the middle at which the victim was sacrificed. The translation of the Wren's Egg into a Druidical altar is unlikely to have originated with M'Kerlie himself, who usually derived his archaeological information from other authorities. M'Kerlie most probably consulted the landowner, Sir William Maxwell, whose assistance with his work he acknowledged.[5] Sir William's interest in the site was such that as early as the 1840s he had made it a condition of the Blairbuie lease that the stones should not be moved[6]. By 1908 when Mr Fitzgerald visited the site with Sir William's son, Sir Herbert Maxwell, then in his early sixties, speculation had become tradition. Sir Herbert would have heard of the double circle as a child, and its former existence would have become accepted as fact, despite the lack of living witnesses.

The R.C.A.H.M.S. Report 1912

To the Royal Commissioners in 1912, of whom Sir Herbert Maxwell was one, the Wren's Egg must have seemed a well-attested example of the destruction of ancient monuments known to have taken place as land was enclosed for agricultural purposes in the late 18th and early 19th centuries. Their Report, however, assumes too easily that other equally slight remains must once have been complete and regular circles. The Inventory is still invaluable as a guide to prehistoric sites in the county, and it seems worthwhile reconsidering the circles it lists, and checking the evidence offered for each.

The types of monument found in the county are summarised in the Introduction to the Report. The section on Stone Circles (p. xxxix) states that the only complete circle is that at Torhouskie, a misnomer, which has since been generally adopted, although the Stones of Torhouse were on the farm of Cunningham on the Torhouse Estate, not on the adjacent Torhouskie. This circle has recently been discussed by Aubrey Burl[7]. The Introduction continues: "At no great distance from the circle various standing stones are to be seen, possibly the remains of other circles, long since destroyed. The former existence of circles, as at Blairbuy (Nos. 12 and 13) and Eldrig (No. 230), is on record, and here and there, as at Longcastle (No. 127), by the roadside near Glenturk (No. 535), or at Glentirrow (No. 48), odd standing stones seem to indicate others all but eradicated". These sites will all be considered, together with Boreland (No. 110), listed as "Stone Circle (Remains of)" in the Inventory, and Laggangarn (No. 282), concerning which various traditions are quoted.

Torhouse

Two groups of stones near the Stones of Torhouse are listed as being the remains of stone circles. E. of the main circle, and clearly visible from it across the road, is an alignment of three stones (No. 534 NX 384565). The Inventory states that they are set in a slightly curving line, suggesting a circle. The curve is in fact barely appreciable, and would indicate a circle of extremely large diameter. Its line would

4. MACKENZIE, W., *History of Galloway*, 1841 Vol. I p. 35.
5. M'KERLIE, P. H., op. cit., 2nd ed., 1906 Vol. II p. 86.
6. Original Name Books of the Ordnance Survey 1845-9.
7. BURL, A., "Torhouskie Stone Circle, Wigtownshire", *T.D.G.N.H.A.S.*, XLIX 1972 p. 24-34.

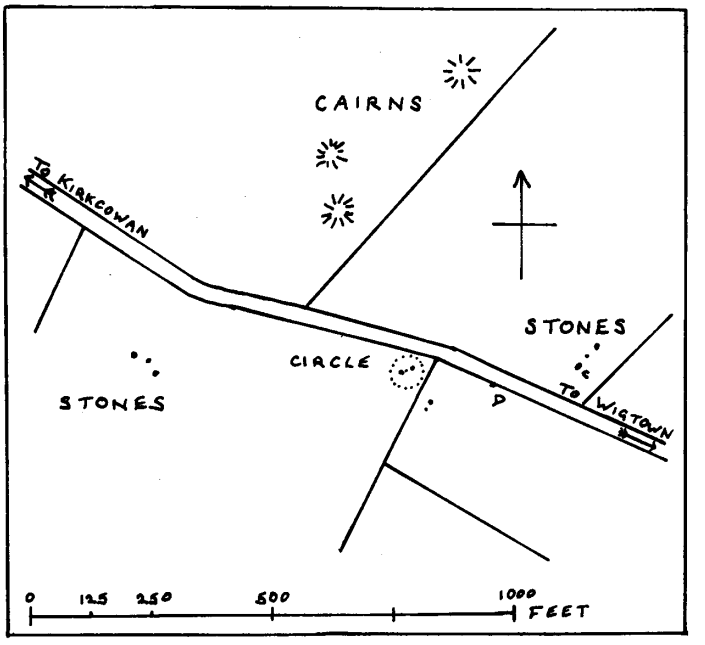


Fig. 2. The Standing Stones of Torhouse after F. R. Coles P.S.A.S. 1897 p. 91.

not include a fourth stone shown on the first Ordnance Survey 6-inch Map of 1849, and also on a plan by F. R. Coles published in 1897[8] (see fig. 2). The plan indicates the position of the fourth stone, following the Ordnance Survey Map, although Coles himself saw only three stones remaining. The fourth stone was probably smaller than the surviving ones, as the Rev. Andrew Duncan mentioned only three stones standing in 1795[9]. It was recalled, however, in "Galloway Gossip" in 1877 as having existed "in my young days",[10] and there seems no reason to doubt this. The circle, improbable on present evidence, becomes even less likely when the former L-shaped plan is considered.

The second group of stones near the Torhouse Circle lay out of sight of it, 200 yards to the NW. (No. 532 NX 381565). The Inventory describes three large pointed boulders lying prostrate with their bases apparently lying on the arc of a circle. By 1932, when the proprietors of the Torhouse Estate gave the circle to the Guardianship of the Commissioners of Works, these stones seem to have been removed, as they are not shown on the plan of the site which accompanied the transfer, and which includes all the other stones and cairns of Coles' plan.[11] There is no sign of them today, unless they are among some large boulders heaped in the NW. corner of the field. The arc of three stones is shown both on the first 6-inch Ordnance Survey Map, and on the Coles' plan (fig. 2). Coles saw "three great stones, all prostrate, lying very much as if they formed the sole relics of a small circle some 30 feet in diameter". It is hardly reliable to record a circle, much less its diameter, on the basis of three prostrate stones, which, of their nature, cannot be *in situ*. Possibly the

8. COLES, F. R., "Notes on a Stone Circle in Wigtownshire", *P.S.A.S.* XXXI 1896-7 p. 90-94.
9. *The Statistical Account of Scotland* 1791-9 Vol. XIV Wigton Parish by the Rev. Mr Andrew Duncan p. 487.
10. TROTTER, R., *Galloway Gossip* 1877 p. 139.
11. SRO MW/1/776 File on the Standing Stones of Torhouse, Scottish Record Office, Edinburgh.

boulders were still upright at the time of the Ordnance Survey (1846-9); later accounts mention stones "erected in a line"[12] or "standing"[13] in a group here. But even upright in their original positions, three stones cannot provide conclusive evidence for the former existence of a circle.

Blairbuy

The R.C.A.H.M.S. Introduction states that circles are "on record" at Blairbuy (Nos. 12 and 13). No. 12 is the Wren's Egg, discussed above; No. 13 is a surprising inclusion, being two standing stones on Milton Hill, a ¼ of a mile to the south (NX 362416). Both sites are headed in the Inventory "Stone Circle (Remains of)". No tradition is quoted concerning the second pair, although the phrase "on record" suggests that Sir Herbert had heard some account of further stones. Most probably, however, any such story resulted from the assumption that standing stones, particularly when near other circles, were likely to be 'Druid' remains.

Eldrig

The "Carlin Stone" at Eldrig (No. 230 NX 326497), which still stands today, is recorded in the Inventory as being a pointed stone, 5 ft. 6 in. high, which formerly stood in the centre of a circle or ring, 12 ft. in diameter, formed of granite stones later used for building a dyke. The source quoted for this account is the Rev. George Wilson, Free Church Minister of Glenluce from 1848 to 1892, who, during the last twenty years of his Ministry, compiled a Notebook of his observations and records of antiquities in Wigtownshire.[14] At Eldrig, Wilson had spoken to the farmer who had removed the stones, and who remembered them as having been standing in 1848 in a circle "say 12 ft. in diameter". At about this time the site had in fact been visited by the Ordnance Survey, who saw an incomplete circle, and noted : "Around the stone and a few yards distance from it are placed five other stones of granite forming a rude circle; they are about 1 foot and 1½ in height".[6] The 1849 Map shows the six stones close against the dyke, which had apparently destroyed the NE. section of the circle. The Survey description suggests that that the diameter may have been rather larger than the 12 ft. estimated in retrospect by the farmer, but otherwise confirms and amplifies his account. The circle was clearly a Centre Stone Circle, a type well-known in the Stewartry. The R.C.A.H.M.S. Inventory for Kirkcudbright lists three such circles, Glenquicken, Claughreid and Lairdmannoch,[15] all with large centre stones encircled by insignificant boulders, as at Eldrig. This, therefore, may be accepted as a reliable record of an archaeologically probable site for the district.

The **Standing Stones** of **Laggangarn**

Another site with accumulated traditions is the Standing Stones of Laggangarn (No. 282 NX 223716). Here two stones, 5 ft. 2 in. and 6 ft. 2 in. tall, stand side by side, 2 ft. apart, each with a cross surrounded by four small crosslets carved on its W. face. The Inventory does not classify them as being the remains of a circle, although it tells of the removal of other stones by a farmer who thereafter met an appropriately terrible end, smothered at his own request in the paroxyms of hydrophobia. A small, squarish pillar, 47 ft. E. of the sculptured stones, is said to mark the farmer's grave.

12. M'ILWRAITH, W., *The Visitors' Guide to Wigtownshire* 1875 p. 28.
13. MUIR, T. S., *The Lighthouse* 1864 p. 23.
14. WILSON, G., *Antiquities of Wigtownshire* M.S. No. 578 Library of the National Museum of Antiquities of Scotland, Edinburgh.
6. Original Name Books of the Ordnance Survey 1845-9.
15. *The Royal Commission on Ancient and Historical Monuments of Scotland.* Fourth Report and Inventory of Monuments in Galloway. Vol. II Stewartry of Kirkcudbright 1914. Nos. 292, 293 and 446.

The Inventory adds that the Rev. George Wilson recorded a tradition of thirteen stones having originally existed, some of which could be seen in use as gateposts at Kilgallioch or lintels at Laggangarn, while one cross-marked stone had been taken to Pultadie.

The stones certainly appear prehistoric, the crosses having been cut over a rough, uneven surface. Professor Thom has observed that at midday the shadow of the S. stone falls onto the N. one.[16] Unfortunately any larger setting of which they may once have formed a part has been long destroyed. Already in 1794 the Minister of New Luce, admittedly not interested in antiquities, knew of no tradition concerning the two stones that were all that were then left.[17] In the late 1840's the Ordnance Survey were told that a third stone formerly stood beside the other two, and that part of it could be seen at the farmhouse, where it was "held in superstitious awe".[6] In 1864 Sir Andrew Agnew told a dramatic version of the farmer's untimely end, which involved the destruction of a "supposed Druid's circle", with retribution following as the farmer's sister-in-law "slipped over a fragment of one of these very stones", breaking her arm, while the man himself was bitten by a mad dog which he had attempted to dash "against one of the accursed lintels".[18] The story is also told by Sir Herbert Maxwell, who relates the farmer's death to the removal of only one stone,[19] agreeing with the Ordnance Survey. Sir Herbert's account concludes with a vernacular touch in that the farmer's wife "smoored him atween twa cauf beds", i.e. "smothered him between two mattresses filled with chaff", which was presumably acquired from a local source.

Thus by 1873 when the Rev. George Wilson published a paper on the Sculptured Stones,[20] the original form of the monument was already outwith living memory, and the details confused by retellings of the dramatic story. Wilson's identification of actual gateposts and lintels as having come from the site could not have derived from eye-witnesses, and none of the large stones which still lie around the ruined steadings can be shown to have come from it. The only stone which could be individually distinguished was a cross-marked one at Pultadie, now vanished, which Wilson believed to have been the one used as the fatal lintel at Laggangarn. His only information, however, was that it had been brought to Pultadie from Laggangarn where it had been a gatepost.[14] He admitted that its single line cross was in a different style from the outlined crosses of the standing stones, and "cut deeper and sharper". It should be added that a small cross-marked stone still lies at Laggangarn (No. 283), and that the old churchyard of Kilgallioch is just across the river. The Pultadie stone need not have stood with the standing stones simply because it also was cross-marked.

Wilson's article added confusion to traditions about Laggangarn by his observations on the site. He gave measurements of seven stones which he claimed to have observed *in situ*, but did not publish his plan, which is in his Notebook. His plan shows his seven stones to be the two carved stones, the small block said to mark the

16. THOM, A., *Megalithic Sites in Britain* 1967 p. 95.
17. *The Statistical Account of Scotland* 1791-9 Vol. XIII New Luce Parish by the Rev. Anthony Stewart p. 586.
6. Original Name Book of the Ordnance Survey 1845-9.
18. AGNEW, A., *A History of the Hereditary Sheriffs of Galloway* 1864 p. 209.
19. MAXWELL, H. E., *Studies in the Topography of Galloway* 1887 p. 233.
20. WILSON, G., *"Notice of Sculptured Stones at Laggangarn,"* *P.S.A.S.* X 1872-3 p. 56-58.
14. WILSON, G., *Antiquities of Wigtownshire* M.S. No. 578 Library of the National Museum of Antiquities of Scotland, Edinburgh.

farmer's grave, and four others to the E., 3 ft. high or less, forming a semi-circle with the "gravestone". Wilson wrote that the plan suggested that two circles had existed, evidently supposing the carved stones to be the remains of an outer circle around the small ones. He added that he had heard no such tradition. In fact the carved stones give no impression of lying on the arc of a circle; their flat faces are in line, and it seems more probable that the stone which traditionally stood beside them completed an alignment of three. The inner circle looks more convincing on the plan, but a visit to the site shows that the stones forming the semi-circle are actually rock outcrops round the summit of the knoll. It is difficult to understand how Wilson could classify these rocks as standing stones, but there is no doubt that they conform to his plan. Lt. General Pitt Rivers visited the site in 1887 as an Inspector of Ancient Monuments, and noted his puzzlement at Wilson's record of seven stones fifteen years earlier, particularly as Lord Stair's keeper, who had been there for thirty-two years, could recall no stones being removed.[21] Clearly, without a plan, Pitt Rivers could not imagine the natural outcrops to be the stones listed by Wilson. Similarly, a photograph in the R.C.A.H.M.S. Report actually shows two of the rocks behind the Sculptured Stones, but the Inventory does not consider them to be worth a mention. Wilson may have decided that a circle of small stones was likely to have existed from one recollection he had heard. This was that an old man used to report that the two large stones had sunk during his lifetime, and that he also recalled ten or twelve "stumps" on the site.[14] This account could be taken to indicate the former existence of a circle of small, stumpy stones, similar to those in the Centre Stone Circles, too insignificant to have attracted much comment, and likely to have become turfed over. Such stones would not, however, have been suitable for lintels, and could not have been the ones pointed out by Wilson in the neighbouring steadings. Another old man told Wilson that his mother remembered thirteen stones standing, which had been taken down for building purposes, leading to the unhappy farmer's death.

The only conclusion seems to be that the accounts Wilson heard of the stones were at second-hand, and no more reliable than any of the published stories. It may be accepted that more stones did once stand on the site, a third stone at least being well-attested. None of the surviving records of a circle, however, can be accepted as authoritative.

Longcastle

The R.C.A.H.M.S. Introduction suggests that some stones are the remains of circles, although no tradition has survived concerning them. It names Longcastle, Glenturk and Glentirrow, and to these Boreland should be added. Just N. of Longcastle School a single large stone stands in the corner of a field (No. 127 NX 382481). The Inventory records it as 4 ft. 10 in. high, and points out that a 3 ft. 6 in. high stone is incorporated into the field wall 36 ft. away, together with other boulders. It suggests that these stones may once have formed a circle. The boulders are still in the wall, looking indeed as if a larger monument has been destroyed. Symson's "Large Description of Galloway" may have preserved an account of the site in noting that "at a place called Cairnfield there is a monument almost like that call'd Galdus' tomb in the parish of Vigton [Torhouse], but it consists not of so good stones nor yet placed in so good order"[22]. In 1838 the Rev. James Reid described the

21. SRO MW/1/774 File on the Standing Stones at Laggangairn, Scottish Record Office, Edinburgh.
22. SYMSON, A., *A Large Description of Galloway* 1684 p. 40.

Cairnfield monument as having been a circle of standing stones with one in the centre, but added that they had "long since been removed to make way for the plough"[23]. In 1877, however, one stone of Symson's circle was said to be standing,[24] and the Longcastle stone, under ½ a mile from Cairnfield steading, seems likely to have been intended. If it was, like the Carlin Stone, the focus of a Centre Stone Circle, this would give a good scatter of these typical Galloway circles on both sides of Wigtown Bay.

Glenturk

The Inventory notes a standing stone (No. 535), 5 ft. 5 in. high, within the wall W. of the main road ½ a mile N. of Glenturk, together with a 3 ft. 6 in. stone lying 35 ft. to the W., another boulder lying beside it. On this evidence the possibility of a circle is suggested. The site is said to be that of a croft called Croft an Righ. One ivy-covered, upright stone built into the dyke looks much less than 5 ft. high, but could be deeply buried in the roadside bank (NX 424579). The site is just opposite the spot where Chapelton Croft is shown on the 1849 Ordnance Survey Map. The Ordnance Survey Archaeological Division have suggested a stone further S. to be the one indicated (NX 42385758), but this is barely a ¼ of a mile from Glenturk, and is, besides, a gatepost rather than being "within" the wall. Neither stone appears to have others to the W. In any case, the evidence of the Inventory is not sufficient to support the idea of a circle having stood here.

Boreland

Boreland (No. 110 NX 352581), listed in the Inventory as the remains of a Stone Circle, is another site to which no traditions seem to be attached. The two standing stones are not shown on Ordnance Survey Maps. The Inventory states that they stand 12 ft. 6 in. apart, 4 ft. 9 in. and 3 ft. 5 in. in height, and suggests that "from the slightly convergent angle at which they stand to each other (they) have possibly been members of a stone circle". No mention is made of nearby stones, although one 5 ft. long stone lies at the base of the nearest dyke, and nearby large, rounded granite boulders form a sheep gap. The suggestion rests on the angle of the two stones alone, a circle clearly being regarded as the most probable monument to be deduced from standing stones. The Commission seem to have been reluctant to recognise that standing stones are found in pairs, threes or longer alignments quite as frequently as in circles. The Boreland stones could be seen as outliers to the large, overgrown White Cairn (No. 108 NX 353582), just out of sight to the NE., behind a swelling in the ground.

Glentirrow

The final site named in the Introduction is the "Standing Stones of Glentirrow" (No. 48 NX 146625), listed as being the remains of a double concentric circle. The classification has been accepted by recent authorities,[25] but it is a doubtful one, and the site merits fuller consideration. The Inventory entry reads as follows:

"Situated on the moor, about ½ m. ENE. of Pinwherrie, are four boulders, three of which stand *in situ* from 2' to 3' above ground, while the other is displaced. These are probably the remains of a double concentric stone circle. The stones believed to be those of the outer circle are oval in section, measuring 2' 10" and 2' 7" respectively at base, both upright, 4' apart, and set slightly convergent as if the

23. *The New Statistical Account of Scotland* 1845 Vol. IV Kirkinner Parish by the Rev. James Reid p. 15.
24. M'ILWRAITH, W., op. cit., 2nd ed., 1877 p. 30.
25. BURL, A., *The Stone Circles of the British Isles* 1976 County Gazetteer p. 365.

centre of the circle had been towards the WNW. The other pair of stones, one of which has fallen, are 3' 2" apart at base and are each 4' 8" distant respectively from the opposite stone of the outer segment."

"Some 40' to the NE lies a fifth stone, similar in appearance. It is displaced and probably not in its original position, but if so, it cannot have been part of the circle to which the others seem to have belonged."

This description still applies, except that the tallest stone is barely 2 ft. 3 in. high, the peat having perhaps grown deeper. There are no records of more stones having existed. In 1839 the Rev. James Fergusson, spelling the name 'Glenterra', wrote of "four large unpolished stones placed erect and forming a circle. At the distance of some yards from the circle stands a single stone".[26] He suggested that it might be a small specimen of the Druidical Temple. A few years later the Ordnance Surveyor examined the stones and saw "no mark to indicate that they had formed a circle", although he noted that the outlying stone was supposed to have been removed from the others.[6] One of the stones was then loose, presumably the NW. one, now prostrate. The surveyor examined its foundations, and found it to be no more than a foot or 18 inches deep in the moss.

The Rev. Fergusson's account of the Standing and Stepping Stones of Glenterra was seen by W. F. Skene. The Stepping Stones were a file of stones a quarter of a mile long, probably revealed by peat cutting in the 1830s, and suggested by Fergusson to have been a passage through a swamp. In translating "The Four Ancient Books of Wales" Skene wrote: "A battle in the marsh of Terra with the dawn", and added a note that the Stones of Glenterra seemed to be a memorial to this battle.[27] The idea was quoted by local antiquaries, such as Maxwell and M'Kerlie. No record, however, was produced of more stones on the site, which is a strong indication that no recollection of any could be found.

The stones should therefore be looked at as they are, that is a small rectangle of four stones with an outlying prostrate boulder 40 ft. to the NE. The obvious place to see parallels is among the settings of four stones common in Eastern Scotland, particularly Perthshire, known as Four Posters. These sites have been analysed by Aubrey Burl, most fully in an article identifying two outlying sites in Northumberland.[28] His paper may be used as a basis for comparison.

First Burl states that Four Posters consist of four stones set in a rectangle with sides averaging 16 ft. E. to W. by 14 ft. N. to S. Glentirrow measures about 8 ft. by 9 ft., which is not much less than some generally recognised Four Posters, such as Templestone, Moray (10 ft. 9 in. by 8 ft.)[29] or Clach na Tiompan, Perthshire (10 ft. by 9 ft. 6 in.).[30] Secondly, Burl says that the stones are usually graded in height, the tallest stone being at the SW. or NE. corner in 80% of sites. The small Glentirrow stones vary little in height, with the SE. stone just the tallest at 2 ft. 3 in. More striking, however, is the greater bulk of the 2 ft. high SW. stone. Its base is squarish, 21 in. on each side, quite unlike the narrow slabs at the SE. and NE. corners. A piece

26. *The New Statistical Account of Scotland* 1845 Vol. IV Inch Parish by the Rev. James Fergusson p. 85.
6. Original Name Book of the Ordnance Survey 1845-9.
27. SKENE, W. F., *The Four Ancient Books of Wales* 1868 XXXV Book of Taliessin xi Vol. I p. 337 and Notes Vol. II p. 402.
28. BURL, A., "Two 'Scottish' Stone Circles in Northumberland", *Archaeologia Aeliana* XLIX 1971 p. 37-51.
29. COLES, F., "Report on Stone Circles Surveyed in the North-East of Scotland", *P.S.A.S.* XLI 1906-7 p. 167-9.
30. HENSHALL, A. S. & STEWART, M. E. C., "Excavations at Clach na Tiompan, West Glen Almond, Perthshire", *P.S.A.S.* LXXXVIII 1954-6 p. 122-4.

of rock embedded in the ground beside it may indicate that it has been broken. Thirdly, Burl states that a quarter of the sites have cup-marks, which is not the case at Glentirrow. Fourthly, he states that Four Posters were erected on terraces on hillsides or on spurs commanding wide views. This is certainly true of Glentirrow, which lies on a spur running from the base of Auchmantle Fell and forming a level terrace at 425 ft. O.D. There are outstanding views to the hills on the Ayrshire border in the N. and to the Merrick in the E. The highest point of ground, however, has not been chosen, although a view to the Rhins in the SW. could have been obtained if the stones had been sited a few hundred yards further S. Finally, Burl points out that these sites were primarily sepulchral in function, usually containing cremations, and, where dateable, belonging to the mid-2nd millenium B.C. No record, of course, exists of finds at Glentirrow, although the low, boggy centre of the site suggests that it has been explored. The very insignificance of the monument, however, supports the idea that its purpose was individual. The stones are not tall enough to be used as sights for astronomical observation, nor imposing enough for a ceremonial function. They are, indeed, hard to find in the tussocky grass, unless approached from the N. or NE. by way of the outlier, when they stand on the skyline.

Burl concludes that the two Northumberland sites under consideration are indeed 'Scottish' Four Posters. "The Goatstones" (NY 829748) is 16 ft. square, but, with its tallest stone barely 2 ft. high, greatly resembles Glentirrow in appearance. "The Three Kings" (NT 774009), with stones over 3 ft. high, is only 12 ft. square. Burl most interestingly suggests that the builders of these "circles" had probably travelled from Perthshire along a West Coast route, by way of Auchleffan, Arran (NR 978251) and perhaps Park of Tongland; Kirkcudbright (R.C.A.H.M.S. 1914 No. 445 NX 700561). Two more Four Posters have recently been identified on Arran[31], and Burl has added Four Stones, Ayrshire (NS 379550) to his list.[25] This route would have been used by the builders of Four Stones, Radnorshire (SO 245607). Burl has also developed the idea of a West Coast route in his discussion of the Torhouse circle, which he considers to be related to Four Posters, being itself a variant Recumbent Stone Circle, and a crucial link between sites in Aberdeenshire and Kincardineshire on the one hand, and similar ones in Cork and Kerry on the other[7]. Travellers journeying south from North Ayrshire and Arran must almost certainly have used the isthmus between Loch Ryan and Luce Bay, recognised to have been an important trading route in prehistoric times, avoiding the treacherous North Channel. Glentirrow, 5 miles from Luce Sands, lies just where an additional site might be expected on the route.

It is also relevant that a large local population occupied the neighbouring uplands. The remains of a remarkably impressive series of cairns run from Auchmantle Fell by Cairnscarrow to Cairnerzean Fell, less than 3 miles N. of Glentirrow. Although much dilapidated today, these cairns were described in the Statistical Account as being "truly singular", there being nine in the length of a Scots mile, consisting of a "vast quantity of stones piled together".[32] Travellers using the isthmus would surely need to establish relations with the people who built such striking monuments.

31. Discovery and Excavation in Scotland 1977 p. 9.
25. BURL, A., *The Stone Circles of the British Isles* 1976 County Gazetteer p. 365.
7. BURL, A., "Torhouskie Stone Circle, Wigtownshire", *T.D.G.N.H.A.S.* XLIX 1972 p. 24-34.
32. *The Statistical Account of Scotland* 1791-9 Vol. III Inch Parish by the Rev. Mr Peter Fergusson p. 137.

Several other Bronze Age sites lie close to the Glentirrow stones. John Ainslie's map of 1784 marks the "White Cairn" by the road, one of the few cairns he notices. This was probably the "Cairn o' Glentirrow" (No. 69 NX 143620), now almost entirely obliterated, but presumably at that time a large pile, attracting the traveller's attention. Fifty yards NW. of the Stones the 2½-inch Ordnance Survey Map shows the site of another cairn. It consists of a circular, stony bank, about 20 yds. in diameter, broken by a track across it, in the corner of a grass field. Its interior contains stony patches, and a large boulder lies on its NW. side. Two hundred yards S. of the Stones a rather slighter stony ring of similar size surrounds a grassy interior. While unlikely ever to have been a cairn of stones, it could be an enclosed cremation cemetery of comparable date. The Stepping Stones of Glentirrow, just across the road, have already been mentioned.[26] An examination of this line of stones in 1923 traced them for a distance of 410 ft., and found that they rested on a clay and gravel surface under the peat.[33] They are not visible today, but could perhaps be interpreted as having been a boundary of some kind.

In conclusion, the Standing Stones of Glentirrow possess many of the expected features of Four Posters. Although small both in area and in the size of stones, this is only to be expected of an outlying site, perhaps erected by travellers rather than settlers. They are situated close to a major trade route and in an area well occupied in the Bronze Age. This route must almost certainly have been used by the builders of Four Posters who journeyed from Arran to the Solway on their way to Northern England and Wales.

It is worth checking whether any other records of local Four Posters have been overlooked. A monument as small as Glentirrow would have been destroyed long ago had it stood on agricultural land. The four stones E. of the Stones of Torhouse can be discounted, as they did not form a rectangle, but the vanished arc of three to the NW. could have been completed by the addition of a fourth stone at the SW. corner. Four stones are said to have stood at Drumtroddan (No. 231 NX 364443),[6] but the surviving three do not look like the remains of a Four Poster. Their huge size, over 10 ft. high, gives them a different character, and although one of the stones has fallen, its prostrate position between the other two suggests that the stones formed an alignment rather than a rectangle.

Miltonish

A more likely site is at Miltonish Cairn (No. 272 NX 193741). The Inventory describes this cairn as being circular, with a diameter of 29 ft., reduced to ground level, and containing a short cist, 1 ft. 10 in. by 1 ft. 6 in. by 1 ft. 6 in. of exposed depth. It quotes the Rev. George Wilson as authority for the record that four standing stones "formerly stood within or adjacent to the cairn". Wilson's information came from the schoolmaster at New Luce, who had heard it from the farmer at Miltonish.[34] The stones were said to have been 3 ft. by 2 ft., which certainly sounds similar to the dumpy Glentirrow stones. The cairn survives today as a stony bank surrounding the little central cist, and could be either the remains of a demolished cairn of stones or an original ring site. Wilson calls it "The Ring Cairn", which, if an old name, may indicate that there has never been more than a bank.

26. *The New Statistical Account of Scotland* 1845 Vol. IV Inch Parish by the Rev. James Fergusson p. 85.
33. LOGAN MACK, J., "The Stepping Stones of Glenterra: a Relic of the Stone Age", *The Gallovidian Annual* 1927 p. 36-43.
6. Original Name Books of the Ordnance Survey 1845-9.
34. WILSON, G., "List of the Antiquities of Glenluce, with Notes", *P.S.A.S.* XXXIII 1898-9 p. 183-4.

Similar ring sites are associated with standing stones elsewhere in South West Scotland, for example, at "The Thieves", Drannandow (R.C.A.H.M.S. 1914 No. 367 NX 404716). Miltonish Cairn lies on flat ground in the valley bottom beside the Cross Water of Luce, at nearly 600 ft. O.D. This is not the type of open terrace usual for Four Posters, but there is a long vista down the valley to Cairnerzean Fell in the SW. Outlying sites, however, seem to be frequently in upland country, in Eastern Scotland, as in Northumberland. The coincidence that Four Stones, Ayrshire, at 600 ft. O.D., lies less than half a mile from the Bargrennan Cairn of Cuff Hill (NS 386551), while Miltonish and Glentirrow are within two miles of Bargrennan sites at Cairn Kenny (No. 271 NX 175753) and the Auld Wife's Grave (No. 46 NX 136650) respectively, probably merely reflects the fact that both types of monument were built by people who were attracted by upland pastures.

This paper concludes with details of some sites recorded by other observers, but not mentioned in the Inventory, since they had been destroyed before 1912. Surviving records all concern lowland areas, where agricultural improvements must have resulted in the destruction of a great many more monuments than were ever recorded.

Steeps Park

Steeps Park, on High Gillespie, was mentioned to the Rev. George Wilson by a labourer who remembered as a little boy playing on 9 or 10 stones in a circle.[34] All but two of the stones had been broken up about 1817, the remaining two being "large granite boulders", moved to the field wall out of the way of the plough after 1877. Two other farmers were able to confirm the former existence of this site to Wilson. He notes that the circle lay N. by E. of the 'Black Cairn' (No. 307 NX 248528).[14] Two rounded boulders still lie against the field dyke 300 yards N. by E. of the 'Black Cairn', and may well be the two described (NX 248531). They are about 2 ft. 6 in. to 2 ft. 9 in. each way and 1 ft. thick. The two Standing Stones shown by the Ordnance Survey SW. of the 'Black Cairn' (NX 245527) are certainly not remains of the Steeps Park Circle. These two, listed separately by Wilson, are referred to in the Inventory (p. 26) as being apparently halves of a large ice-borne boulder.

Glenjorrie

In his Notebook Wilson mentions an upright stone with two prostrate ones nearby in the third meadow below Glenjorrie farmhouse, and suggests that the group looks like the remains of a circle of stones. He cannot have felt entirely confident of this suggestion as it is not included in his published "List of the Antiquities of Glenluce".[34] The large block of stone is about 5 ft. high and clearly visible from Glenjorrie farm road (NX 206581). The only 'prostrate' stones still nearby, however, are rock outcrops, recalling Wilson's identification of similar outcrops at Laggangarn as Standing Stones. Even the main boulder could be a natural feature in this glaciated landscape, although the associations of the site are interesting. The remains of two cairns lie within 300 yds. of the stone (No. 348 NX 207583 and O.S. site NX 207581), and two separate discoveries of jadeite axes have been made nearby.[35] There seems no reason, however, to record a stone circle here.

34. WILSON, G., "List of the Antiquities of Glenluce, with Notes", *P.S.A.S.* XXXIII 1898-9 p. 183-4.
14. WILSON, G., *Antiquities of Wigtownshire* M.S. No. 578 Library of the National Museum of Antiquities of Scotland, Edinburgh.
34. WILSON, G., "List of the Antiquities of Glenluce, with Notes", *P.S.A.S.*, XXXIII 1898-9 p. 183-4.
35. CAMPBELL SMITH, D., "Jade Axes from Sites in the British Isles", *P.P.S.* XXIX 1963 p. 168-9.

Balmennoch

The antiquarian interests of Mr William Todd, schoolmaster at Kirkmaiden, preserved a record of the Standing Stones of Balmennoch (NX 06 57), near the village of Lochans. In 1872 Arthur Mitchell published some stories he had gleaned from Todd when visiting him some years earlier seeking information on the early Christian stone missing from Kirkmadrine churchyard.[36] He included an account of six large stones which had stood "in a circular form" on the farm of Balmennoch, which was divided between Mount Pleasant and Meikle Lochans in about 1792. Between 1760 and 1770 workmen were sent to take down the stones for use in building at Little Lochans. The men met a little old man who told them to desist and went on to foretell that the person building the house would never live to enjoy it. Sure enough, the tenant died before the house was finished. No direct personal recollection is quoted for this story, but clearly Mr Todd had heard it from a local source. It can be accepted that stones once stood near Lochans, a district rich in Bronze Age finds, but lacking field monuments, presumably as a result of agricultural improvements.

High Curghie and **Little Clanyard**

Mr Todd's particular interest was the history of Kirkmaiden parish, where he was schoolmaster for forty-seven years. In 1854, in his eightieth year, he collected his records into one volume[37] in which he wrote on Druid Circles as follows:

"Though nothing that can be called by this name now exists in this Parish, not more than half a century ago, there were several remains of what were considered to have been Druid Circles. The Standing Stones of High Curghie, which stood on the hill behind where the present Stack-yeard is, were of this description. They were all removed by the tenant about 50 years ago. The Standing Stones of Little Clanyard were of the same sort and were all removed and applied to different purposes a few years later."

High Curghie farm steading (NX 124367) included buildings on either side of the road on early maps, so it is not known on which side the 'Stack-yeard' stood. Little Clanyard is not mentioned by the Ordnance Survey, but must have been near High and Low Clanyard (NX 10 37). Both records seem a fairly reliable testimony of some standing stones having stood on the sites named, although they need not necessarily have been circles.

Mull Glen

As recently as the early 1950s another possible site was found by the Royal Commission. In the NW. corner of the field W. of Mull Glen a large stone (5 ft. 4 in. by 1 ft. 10 in. by 1 ft.) was noted embedded in the ground (NX 134313). The wall running S. from the corner of the field was observed to include twenty large stones, and the former existence of a circle was therefore suggested. The evidence seems little stronger than that for some of the earlier suggestions by the Royal Commission. Nonetheless it must be included as a possible site.

Clachanmore

Another hint of vanished circles is found in the Old Statistical Account for Stoneykirk Parish, which says that on the lands of Ardwell "are some remains of druid temples and Pictish castles".[38] Ardwell Broch (No. 433) is doubtless a

36. MITCHELL, A., "Inscribed Stones at Kirkmadrine in the Parish of Stoneykirk". *P.S.A.S.* IX 1870-72 p. 572.
37. TODD, W., *Statistical, Historical and Miscellaneous Memoranda of Matters connected with the Parish of Kirkmaiden* 1854.
38. *The Statistical Account of Scotland* 1791-9 Vol. II Stoneykirk Parish by the Rev. Mr Henry Blain p. 56.

'Pictish castle', but only an occasional standing stone survives in the parish to suggest 'druid' remains. The report, however, supports Dr. Trotter's statement that Clachanmore village, half a mile from Clachanmore farm, took its name "from a large Druidical Circle that formerly existed there"[39] (NX 083467). Sir Herbert Maxwell merely says that the name means either "the great stones, or big village",[40] and Trotter might similarly be given a possible interpretation rather than an actual tradition. Taken in conjunction however, with the Statistical Account, his story can be respected.

Kirkmadrine

Another possible site on Ardwell estate emerged in the Third Statistical Account (1965) with the somewhat surprising 'tradition' that Kirkmadrine church is "situated on the site of an ancient 'Druid' temple"[41] (NX 080484). The explanation is probably that the Rev. Archibald Melrose used as his source for the antiquities of the parish Andrew Donaldson's "Stoneykirk; Past and Present" (1909). Donaldson wrote : "From the formation of the old inscribed stones at Kirkmadrine there seems no doubt that they have been taken from a Druid temple". This illustrates again how a 'tradition' may emerge. There is a large standing stone nearby on South Cairnweil (No. 439 NX 086485), but there is no record of it ever having been part of a larger monument.

The Clies of **Culnoag**

Another probably erroneous record is found in "The Hereditary Sheriffs of Galloway". Sir Andrew Agnew wrote : "The 'Clies of Culnoag' are or were a circle of standing stones, indicative of graves, close to the site, as it is said, of the parish church of Great Sorbie in the 12th century"[42] The name, marked on the 2½ inch Ordnance Survey Map (NX 419467), seems to be a form of 'cliens', an old Gallovidian word for small heaps of stones. Sir Herbert Maxwell comments that "Clays (pron. Clies), is not an uncommon name for a deserted site where the foundations of houses remain as grassy mounds".[43] His interpretation is supported by the Ordnance Survey, who, in the 1840s, found old people who could remember the ruins of a village having existed at the 'Clies of Culnoag' eighty years earlier.[6] It may be concluded that the circle was a later invention.

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39. TROTTER, R., op. cit., p. 79.
40. MAXWELL, H. E., op. cit. p. 117.
41. *The Third Statistical Account of Scotland* 1965 Stoneykirk Parish by the Rev. Archibald Melrose p. 492.
42. AGNEW, A., *The Hereditary Sheriffs of Galloway* 1893 p. 330.
43. MAXWELL, H. E., op. cit. p. 121.
6. Original Name Books of the Ordnance Survey 1845-9.

AN URN BURIAL FROM BURNFOOT PLANTATION DOWGLEN HILL, WESTERKIRK

with a note on a Bronze Age Burial at nearby Carlesgill

by T. G. Cowie, L. J. M. Masters and M. Harman

THE SITE

In May 1977 Mr A. T. Dalgety, whilst walking in the Burnfoot Plantation on the south side of Dowglen Hill, noticed an inverted collared urn eroding out of the top of a steep slope adjacent to a Forestry Commission road. Owing to the fact that the urn was in immediate danger of collapse from the top of the slope, it was carefully removed with minimal disturbance of its context. It was then taken immediately to the National Museum of Antiquities, Edinburgh, where the urn was consolidated by the museum's conservation laboratory, and its contents examined by Dr. D. V. Clarke. A few days later the find-spot was relocated by the writer and Mr M. J. Yates.

The exact position of the find was at NGR: NY 33758917, in the parish of Westerkirk, now part of the Annandale and Eskdale District of Dumfries and Galloway Region, and some 5 km NNW of Langholm. Dowglen Hill falls steeply on its southern side from its summit at 351m to around 120m on the north bank of the River Esk. The find-spot was located at about 185m above sea level, and lay just within the southern boundary of the plantation, a little to the north of the Forestry Commission road. This road had been constructed in the mid 1970's and had entailed cutting into the hillside in order to create a terrace. The weathering back of this slope undoubtedly resulted in the uncovering of the urn.

When relocated, about one-third of the impression of the urn was still clearly visible. So far as could be ascertained, the urn had been buried at no great depth, the presumed position of the base being only some 350mm below the top of the present organic horizon. The urn was situated between two rows of mature conifers, and tree roots had caused some damage to the local stratigraphy. Because of the standing trees, it was not possible to undertake much in the way of excavation, apart from cleaning up of the section to either side of the find-spot. On the surface examined, there were no indications of a cist and it is unlikely that stone slabs could have been removed without leaving some impression. The urn was situated in a layer of glacial till which had been considerably disturbed by tree roots. Owing to this, and the proximity of the standing trees preventing horizontal excavation, there was little evidence for a pit either, although one should be presumed.

Considerable quantities of cremated bone and part of the broken shank of a bone pin were recovered from the loose soil on the slope below the position of the urn. This had, no doubt, dropped out when the urn was removed and, whilst some of the fine bone material may well have blown away, it is unlikely that any object of significance has been lost. During his subsequent examination of the cremation deposit, Dr Clarke recovered further pieces of flint and more fragments of the bone pin.

The finds, together with the cremation and records of the site, have been deposited in the Burgh Museum, Dumfries (Acc. nos. 80-58).

CREMATION DEPOSIT (MH)

All the bone fragments were fairly well calcined, mostly white, with considerable torsion of some pieces, suggesting efficient cremation. The total weight of the fragments recovered was 1,392g, including parts of skull and mandible weighing 195g, and other identifiable fragments weighing 210g.

There are many cranial fragments, with open sutures. A large proportion of the facial bones were found, showing a complete adult dentition on the right side, and the roots of eighteen teeth were identified. There was no indication of caries or abscesses and in three molars the occlusal surface of the dentine survived, and appears to be worn but not hollowed. Other identifiable pieces include parts of nine vertebrae, the scapulae and humeri, large pieces of both radii and ulnae, four metacarpals, fragments of the iliac blade and crest, parts of the femoral heads, proximal end of the tibia and distal end of the fibula, five metatarsals, nineteen phalanges, and fragments of the shafts of long bones.

There is no evidence that more than one individual is represented. The bones are those of an adult, and open sutures, moderate wear on the teeth, and the lack of evidence of degenerative disease such as osteo-arthritis on sites such as cervical and lumbar bodies suggest that the individual was not aged. Though none of the features which might clearly indicate the sex of the individual has been preserved, there is part of a mastoid process which is small; the bones are not particularly large, and the measurements of the thickness of the skull vault (3.4-4.7 mm), humerus shaft (3.0-4.0 mm) and femur shaft (4.1 mm) fall well within the range of figures which Gejvall (1969, 474) gives for those measurements made on female remains, so it is perhaps more likely to be the body of a female than a male.

In addition to the human remains, there is one short length (31.4 mm) of rectangular sectioned bone (median section 2.8 mm x 1.8 mm) which decreases in size towards one end, and has a hollow centre: this may be a fragment of bird bone.

Summary: The burial deposit consists of a large proportion of the cremated remains of a young adult, possibly a female.

FINDS (TGC)

Collared Urn (fig. 1).

The urn, virtually complete when found, and now fully restored, is a tripartite vessel with a height of 228-240 mm and rim and base diameters of 195 to 205 mm and 85 to 90 mm respectively. The rim of the vessel is relatively upright with a narrow internal bevel, but the lower part of the collar terminates in a markedly flared moulding at the neck without any overhang. The neck, of similar proportions to the collar, is, in the main, slightly concave but in places almost straight and meets the body of the vessel at a weakly defined 'shoulder'. The lower body possesses a regular profile in the form of a truncated cone tapering to a slightly upright base. The colour of the vessel ranges from buff to light reddish brown externally, with a generally buff interior, with traces of black encrustration near and around the base. The urn has a hard fine clay matrix profusely tempered with medium grits (up to 7 mm in size). The surfaces of the vessel have been smoothed but following restoration no other details of the construction are visible.

The urn bears decoration on its upper part only, the lower body apparently being plain although somewhat obscured by abrasion possibly as a result of exposure

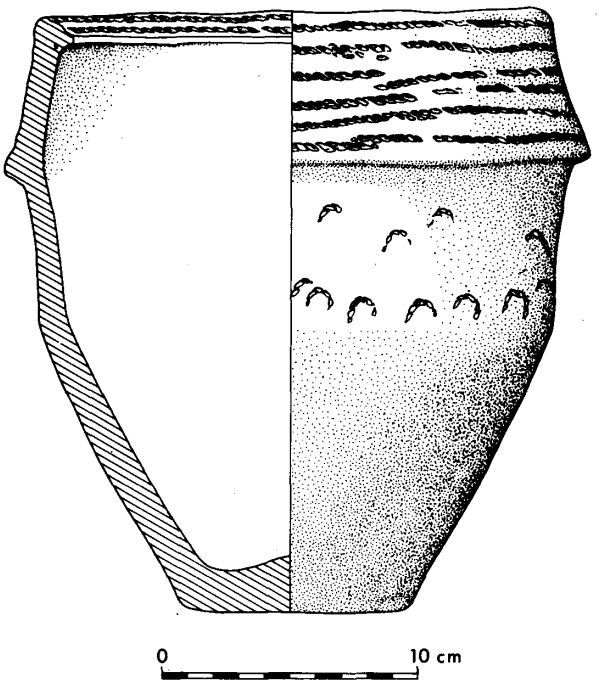

Fig. 1. Collared urn from Burnfoot Plantation, Dowglen Hill (1:3).

prior to recovery. On the internal bevel are two concentric rows of Z-twist cord impressions apparently applied in a series of short lengths (*c.* 30 mm long). On the collar six rows of horizontal Z-twist cord impressions have been applied rather irregularly as a series of short lengths, mainly contiguous but overlapping in places. Finally, horizontally set Z-twist cord 'horseshoe' impressions are arranged in two irregular rows on the neck and around the 'shoulder' of the vessel.

Although the urn possesses the usual formal attributes of collared urns, its decoration is apparently atypical among the urns of this type recorded from south-west Scotland. Arrangements of horizontal twisted cord are rarely the principal decorative elements of collared urns in this region. However, simple cord lines do frequently occur as components (eg borders) of more complicated hurdle, lattice or chevron arrangements. General comparison of the decoration on the collar may nevertheless be made with the fragmentary vessel from Cumnock, Ayrshire (Morrison 1968, cat no 37) or, further afield, with urns from Ardoe, Aberdeenshire (Ogston 1872) or Arniston, Midlothian (*Proc Soc Antiq Scot,* 3, (1857-60), 462), although the use of interrupted lengths of cord on the Burnfoot Plantation vessel distinguishes these decorative schemes in detail. The use of horizontal cord on the internal bevel is better attested (eg, Morrison 1968, cat nos 37, 85), while the application of twisted cord 'horseshoe' impressions to neck and shoulder — though not particularly common in this region — can also be paralleled in the published material from the south-west: examples include collared urns from Muirkirk (Morrison 1968, cat no 41) and Girvan (*ibid*, cat no 51), both in Ayrshire, which bear horseshoe impressions, although in each case these occur as elements of altogether more profuse decorative schemes.

In summary, therefore, although the overall scheme of decoration of the Burnfoot Plantation urn is not directly paralleled elsewhere in the south-west, the potter was working within a reasonably formalised tradition and clearly drawing from a widely known 'pool' or repertoire of decorative techniques and patterns. A broad calendar date range of between *c* 2000 and 1400 BC can, on the basis of available radiocarbon dates, be proposed for the emergence and development of this largely funerary potting tradition (Burgess 1974, 180; 1980, 84-98).

Burnt bone pin (fig 2): 174 mm long (overall); 12 by 5 mm in cross-section at the head, 7 by 4 mm on the shank and 3 mm in diameter at the surviving tip; restored but point wanting. The pin appears to have been formed by utilising a splinter detached from a larger bone of uncertain identification. Apart from some possible smoothing of the edges, however, the pin shows little sign of deliberate modification, while its present distorted, cracked condition can be attributed to the effects of severe heat, indicating that it may have been used as a dress pin to fasten a garment or shroud worn by the deceased prior to cremation.

Burnt bone or antler pins have been recovered from cinerary urns from over a dozen sites in the north but the small total number and their variable survival renders detailed comparisons of dubious value. In general, however, the intact pins fall into three categories : skewer pins (usually with rounded heads), eyed pins, and rougher pins such as that from Burnfoot Plantation showing only partial modification of original bone surfaces. In this respect the Burnfoot pin, apparently retaining part of an original articular surface and formed from a large bone splinter, can perhaps be compared with a smaller pin, also burnt, from a collared urn burial at Wylie's Wood, Kirkbean (Bishop 1919, including figure; Morrison 1968 cat no 85). In the absence of contemporary domestic worked bone assemblages, it is unclear to what extent the surviving pins really are representative of the contemporary range of types, and their usefulness as chronological indicators must be correspondingly uncertain.

Burnt bifacially edge retouched flint point (fig 2): grey-white; heavily damaged; burnt; surviving edges fresh?; 50 mm by 32 mm by 9 mm; and **two flint chips** (not illustrated), probably from same piece. The extent of the damage to the piece makes its attribution to a morphological type uncertain, and comparisons can only be

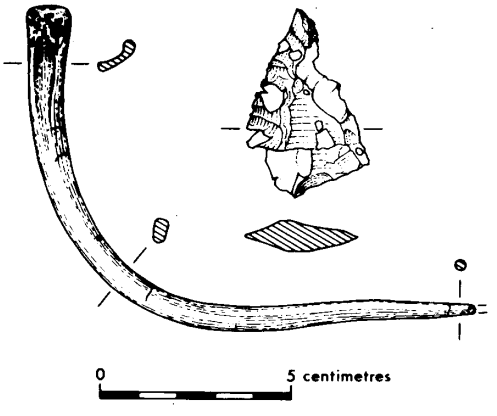

Fig. 2. Burnt bone pin and flint point from Burnfoot Plantation, Dowglen Hill (1:2)

drawn in general terms. The range of urn associations which include burnt flint artifacts is again limited, and marked by the lack of recurrent or diagnostic types. Nevertheless attention may be drawn to the recovery in one or two instances of calcined barbed and tanged points, for instance from one or both collared urns from Kingskettle, Fife (Callander 1921, 37-45, fig 5) or from a collared urn from Milngavie, Dunbartonshire (Callander 1908, 218), while a burnt flint point of stouter proportions than the Burnfoot example, but of similarly indeterminate function, was recovered from a large Food Vessel Urn discovered at Balrownie in Angus (Stevenson 1941, 212; Cowie 1978, 109). Once again, it is necessary to stress that the circumstances of discovery and recovery of the majority of urns has almost certainly resulted in the gross under-representation of such associated finds. Mention may also be made of the fresh surviving edges of the Burnfoot piece, which may suggest deliberate deposition in a pristine or relatively fresh condition.

CONCLUSION

It is unfortunate that the circumstances of the discovery of the urn resulted in the loss of most of the details of its context, but at least in respect of its inverted position the urn conformed to general practice (cf Morrison 1968, 81-2 and 91). It is worth stressing, however, that the archaeological value of the burial group has been considerably enhanced by the careful recovery of the vessel and, particularly, by the prompt reporting of the site by its finder. Not only did this permit professional assessment of the site in as undisturbed a condition as possible, but the resulting collection of the loose soil and debris led directly to the recovery of the cremation deposit and the fragmentary associated artifacts. These add considerably to the interest of the find, and emphasise the extent to which the quality of recovery of isolated or chance finds can lead to the under-representation of certain objects, and consequently the potentially misleading loss of information. This discovery extends the distribution of cinerary urns in the south-west towards Upper Eskdale (Morrison 1968, fig 1), an area of Dumfriesshire that has otherwise produced relatively few recognisably 'Bronze Age' sites or finds. All these factors render the urn, with its locally atypical features and its associated artifacts, a valuable addition to the regional corpus of material of the earlier second millennium BC.

ACKNOWLEDGEMENTS

We are grateful to Mr A. T. Dalgety for his careful recovery and prompt reporting of the find, and to Mr M. J. Yates for his assistance in the subsequent re-location of the site. Thanks are also due to various members of the staff of the National Museum of Antiquities of Scotland: to Dr D. V. Clarke for his work on the contents of the urn, to the officers of the Conservation Laboratory for their work on the consolidation of the vessel, and to Miss Helen Jackson for preparing the drawings of the finds.

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APPENDIX

A Bronze Age Burial at Carlesgill, Dumfriesshire

During preparation of the foregoing report on the Burnfoot urn burial, the attention of one of the writers (TGC) was drawn to an unpublished newspaper account of the discovery and examination of a cist at Carlesgill, in the same locality (RCAMS 1981, no 17). Although the contemporary interpretation of the site proposed in the final paragraph is no longer valid, the account is worth reproducing in full as it represents — for its time — a remarkably complete and acutely observed report of an archaeological discovery:

From the Glasgow Herald, 6 June 1860

'Discovery of Roman Remains (from the Dumfries Courier)

'On the 30th ult. the ploughman of Mr Little, Carlesgill, near Langholm, whilst preparing a field for a turnip crop, struck and loosened with his plough a large splinter from a larger whinstone slab beneath. In the process of removing the splinter it was observed that the larger piece was not earthfast, and it also with some difficulty was taken up — a flat stone 4 ft. 5in, long and 2ft. 3in wide, of irregular outline: below this, so far as the ploughman observed, there was nothing but clean gravel, the same subsoil in fact as in other parts of the field. It was evident, however, upon examining the pieces of stone, that they were of a different formation from the stones on the adjoining hillside, and as people seldom take the trouble of carrying a large stone from a distance without some good reason, it was thought worth while to try and ascertain if the "clean gravel" under the slab had ever been disturbed. A couple of spades were procured, and the soil hastily thrown back into the hole by the ploughman was removed with about an inch of the gravel, when the spades struck upon the edge of a flat stone set upright; five others in the same position were laid bare, forming an oblong 3ft. 9in, by 2ft. 2in. Great care was now taken in clearing out the gravel: when about 3 inches were removed, the edge of the rim of an earthen vessel was found (nearer to the east side than the centre of the oblong). Proceeding cautiously, a cinerary urn of coarse pottery was taken out entire, but seamed with various cracks, which have widened sensibly since exposed to the light and a drier atmosphere. The urn was filled with gravel and what seemed fine sand or soil; the inside was blackened as with soot or charcoal: it is 7 inches high, 24 inches in circumference at the mouth, widening to 28 two inches lower, and tapering to 9 at the bottom: the outside is rudely

ornamented. The soil or gravel filling the grave (or coffin?) was carefully examined for two feet down to the bottom of the surrounding stones, but nothing was found, excepting a handful of bits of charcoal — none larger than a bean, whether of charred wood or bone cannot be ascertained — and a much decayed molar (human) tooth, which did not appear to have been subjected to the action of fire.

The field where the remains were found has been in cultivation for more than a century, and of course has often been gone over by the plough. It is overlooked by the site of a Roman camp on the top of the Craighill, a mid way station between the camp at Liddlefoot and Castle Oer, Eskdalemuir. There can be little doubt that the worthy whose ashes have thus been rudely disturbed was a leader in the Legions who over-ran and held this country in subjection some 1500 years ago'.

There is no doubt that the newspaper account reports the discovery not of the grave of a Roman 'worthy' but of a Bronze Age short cist; allowing for some minor discrepancies in the accounts it is virtually certain that this site represents the find-spot of the food vessel (now in Dumfries Museum) which was described by Hyslop and Hyslop in 1912 (572-3, with figure), and subsequently catalogued by Simpson (1965, no 17).

ACKNOWLEDGEMENT

I am grateful to Messrs R. Mowat and S. Halliday for drawing my attention to the newspaper account of this discovery.

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THE EXCAVATION OF AN EARTHWORK ENCLOSURE AT LONG KNOWE, ESKDALE, DUMFRIESSHIRE, 1976

by Roger Mercer M.A., F.S.A., F.S.A. Scot
with contributions by
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Dr. Michael Stenhouse

Abstract

The excavation of the earthwork enclosure of 0.6 acres extent at Long Knowe, Eskdale, Dumfriesshire revealed a low quasi-defensive enceinte enclosing 10 circular timber structures founded upon stone-packed ring grooves. At least five of these structures were of more than one phase of construction — two being possibly of three phases. On the line of easiest approach to the site the earthwork defence was reinforced by a ditch and counterscarp palisade which has since become waterlogged. These exceptional circumstances have led to the preservation of much unworked wood and a small inventory of animal bone including bones of cattle, sheep and horse. Timber fragments from the base of the ditch yielded radiocarbon determinations centring on the 4th and 7th centuries bc. Peat growth appears to have commenced on the site shortly after its desertion.

SECTION 1

Introduction

During June and July 1976 the excavation took place at Long Knowe of the small embanked enclosure set upon a broad spur jutting out into the valley of the Monkenshaw Burn where it flows north-eastwards to its confluence with the Garwald water (see fig. 1). This river in turn joins the River Esk 3 kms. to the east of the site. The site is located at NGR NW 210999, 300m east of Long Knowe itself, a low eminence rising to 343m O.D. In the absence of any known site name this denomination, which figures on DOE scheduling files concerning the site and previously in the RCHM *Inventory for Dumfriesshire* (RCHM 1920 No. 181) was adopted. This site is not specifically mentioned by Jobey (1971) but appears on his distribution map.

The first record of the site is that published in the RCHM *Inventory* (RCHM 1920). Curle visited the site on the 8th July 1912 and his description still holds good. "This enclosure is situated at over 1000' O.D. on the haunch of the hill overlooking the valley of the Monkingshaw (*sic*) Burn more than 100' below. It is oval in form, measuring 180' x 140' and has been surrounded by a stony bank some 7' broad at the base and now reduced to a height of about 2'. The interior is very uneven, and on the north the rock is very near the surface. There are two entrances; one at the southern end about 8' wide opening on to the lowest level and the other on the east also opening on to a hollow but faced with higher ground in front of it. The site is on a plateau at the edge of a steep slope and quite unnoticeable from below". In 1976 the

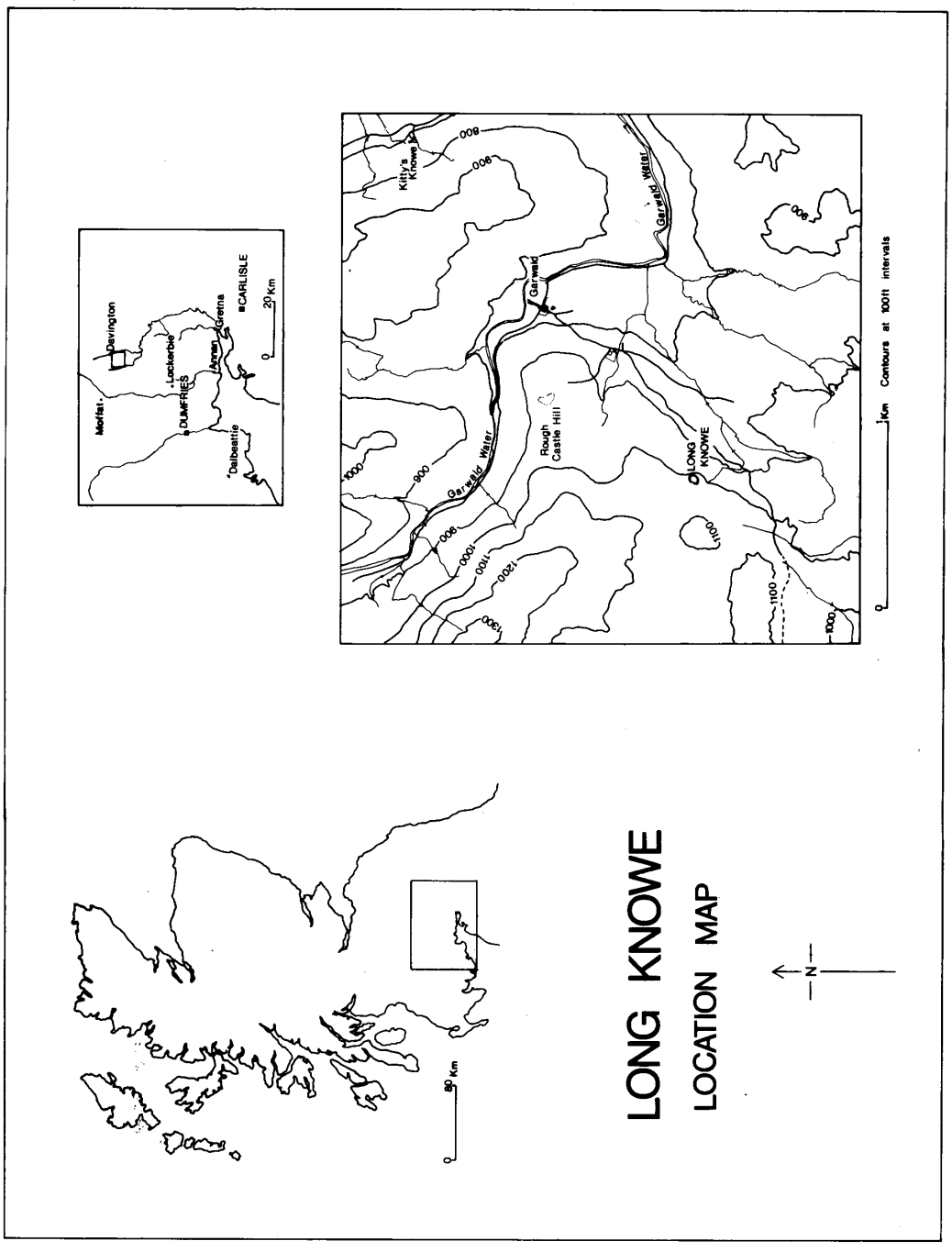
LONG KNOWE
LOCATION MAP
Moffat
Dalbeattie
DUMFRIES
Lockerbie
Annan
Gretna
CARLISLE
Garwald
Garwald Water
Rough Castle Hill
LONG KNOWE
Kitty's Knowe
Contours at 100ft intervals

Fig. 1

site was under tussocky grass with the diminutive boles of the cut saplings that had been planted over the site after forestry ploughing in 1972. The plough furrows were, on average, somewhat less than 2m apart and approached 0.6 metres in depth. The upturn from the furrows formed ridges across the site which stood c. 0.3-0.4 metres high and it is upon this upturn that the tree-saplings had been planted. Ploughing on the site had taken two directions (for no apparent reason other than a break in working). In the southern sector of the site the furrows ran approximately NW by SE while in the northern sector they approximated to an E-W line. To the SE of the site a quarry for roadstone, presumably not present at the time of Curle's visit, and to be linked with the construction of forestry roads in the area, impinged marginally upon the rampart in the southernmost point of the circuit. The SW, W and NW boundary of the site was delimited by a ditch running outside the stony bank described by Curle. The limits of this ditch to the N and S were located by probing and are shown on the site plan (see figs 2 & 3). This side of the site, a flat area forming the neck of the broad spur upon which the site was set, was also extremely boggy. A stream meanders through the bog running quite close to the SW boundary of the site and continuing ultimately through a cleugh to flow into the Monkenshaw Burn. This stream, or its equivalent, presumably furnished the site's prehistoric water supply. Despite extensive and intensive inspection no trace emerged of walls or other boundaries to be linked with the site in the surrounding area which could give any idea of the agricultural strategy upon which the economy of the site might have depended. However to the SE and NE of the site below the spur on the valley slopes a series of natural terraces (see fig. 4) exist which support lusher grass today and which *may* in the past have been cultivated. There is, however, no link to be established archaeologically between these terraces and the Long Knowe enclosure.

The 10cm interval contour survey of the site (see fig. 2) makes it clear that the interior of the enclosure can be divided into three sectors. Behind the southern and north-eastern entrances through the enclosure bank are two lower areas with, behind these, running through the centre of the site and along its western margin, a slightly elevated platform. No trace of palisade slots, scoops or individual hut platforms were visible on the surface of the site although the massive disruption of the surface by ploughing rendered it extremely unlikely that such traces would have been observable.

Acknowledgements

The writer is anxious to acknowledge the considerable encouragement and material assistance and indeed the hospitality of the owners of the monument, Economic Forestry Ltd., and in particular would wish to record his gratitude to Messrs Roger Jackson and Campbell McEwan of that company. To the Inspectorate of Ancient Monuments (DOE) and particularly to Patrick Ashmore must go the credit for conceiving the idea of the experimental aspect of the excavation and of course without the financial assistance of that body the work would not have been possible. Martin Munro, John Barber, Lin Barnetson and Michael Stenhouse generously gave time and energy to consideration of various problems linked with the site and Prof. D. W. Harding, P. Hill, Dr. D. J. Breeze and P. J. Ashmore kindly commented upon the text before submission to the editor. Many people in Eskdalemuir, too numerous to mention individually, had a hand in rendering our

stay in the area a pleasant one, and to them collectively the writer would wish to record his best thanks. Finally, and not least, he would wish to express his thanks to the undergraduates of the Department of Archaeology, University of Edinburgh who bore nobly the extremes of summer climate experienced during the execution of the project. Mr Bernard Bell assisted with the production of the drawings which accompany this text.

Background to the Enquiry

The prehistoric defensive enclosures of Dumfriesshire have been studied by Jobey (1971) in response to a major gap in our knowledge of the prehistoric and Romano-British settlement pattern of that area. Non-defensive stone built enclosures surrounding round stone-built houses facing on to concave "yards" had long been recognised in the eastern border counties, largely as a result of Jobey's own work (1966) and, of course, due to the work of the Royal Commission for Historical Monuments in the border counties before and since the Second World War (RCHM 1956, 1957 and 1967). More recently partly as a result of Jobey's work at Tower Knowe, North Tynedale, Northumberland (Jobey 1973) it has become apparent that the stone built hut foundations visible within these enclosures were secondary, on some sites at least, to an earlier tradition of timber built structures. The indications seemed to be that this transition from timber to stone building took place quite late during the Roman period. In their timber built form therefore these sites closely resemble the small enclosures of E. Dumfriesshire with scooped wooden structures. If this was so the *hiatus* in native settlement in Dumfries would be resolved and Jobey went on to prove the contemporaneity of one of these Dumfriesshire sites with the Roman occupation by his excavations during 1973 and 1974 at Boonies, Westerkirk (Jobey 1975), set, like Long Knowe, in Eskdale. Romano-British material, pottery, glass and metalwork, retrieved in very small quantities together with a radiocarbon assay (SRR—300 1842± 47bp — 108 ± 47ad) would seem to place the construction and occupation of the site fairly firmly within the 1st and 2nd centuries A.D. Very little emerged from the work at Boonies to clarify the nature of the agricultural economy of the site apart from the location of five fragments of rotary querns indicating, presumably, access to cereal crop production. But in another direction the results of the excavation were most revealing. Careful (though not total) excavation of the interior revealed a long succession of timber house foundation slots or 'ring-grooves' which showed the site to have had a *minimum* of seven phases of house replacement. For much of this time only one house was set within the enclosure. Within two phases two houses *could* have co-existed. By the final phase five houses were present within the enclosure which, however, by virtue of their diminished size only doubled the amount of covered floor area within the settlement over that of the single house phases. The enclosure bank at Boonies was 2m high — very much more substantial than the bank at Long Knowe could ever have been and this fairly massive defence enclosed an area of 0.17 acres and Jobey points out that this is a small area by comparison with the generality of these Dumfriesshire sites. The site itself is set on the edge of a river terrace beside the Esk about 15m above the river and at a height 153m O.D.

Jobey ended his report on his work at Boonies by remarking that "one swallow does not make a summer" and further selective excavation would need to take

place on the Dumfriesshire enclosures to arrive at a clear grouping of monuments in this region.

The opportunity to excavate Long Knowe seemed to fulfil an immediate requirement in the pursuit of this enquiry. The enclosure, while in the same area as Boonies, was of quite different proportions with its diminutive enclosure bank, by comparison, and its far larger internal area — approaching 0.6 acres. More importantly, its setting away from the river on a spur at a height 338.5m O.D. suggested that here might be a rather different aspect of the same economy or even possibly some chronological differential. At such a height (over 1100') it was indeed not at all certain that the enclosure was intended for occupation and the implications for population studies of ascertaining densities (or not) of population at such an elevation seemed to offer the possibilty of an important contribution. Furthermore at Long Knowe the waterlogging of the ditch on the west flank of the site presented the possibility of some expansion of our knowledge in precisely the area that Boonies had been unable to be productive — environmental and economic information leading to further conclusions on farming practice.

Objectives and Methods of Excavation

The aims of the excavation of Long Knowe in 1976 were two-fold. First the overall inspection of the interior of the enclosure was undertaken in an attempt to establish the number, density and form of all structures or other features present on the site. The enclosure bank was sectioned and the ditch bordering the enclosure on the NW side was excavated on as large a scale as possible in the circumstances. It was clear from preliminary inspection of the site that this ditch was potentially waterlogged at least in its basal filling.

Secondly the enclosure at Long Knowe had been ploughed for the plantation of conifers in 1972. Many hundreds of sites in Highland and Lowland Scotland have been subjected over the last 50 years to this particular form of devastation. Vigilance and clear channels of communication may well enable us to prevent a large part of this destruction in the future. A question remains however as to the measures that should be taken by the Inspectorate of Ancient Monuments, as the responsible authority, to alleviate the plight of monuments already damaged. With this problem in view the Inspectorate approached the writer with the project of excavating a site which had already been ploughed, a fairly typical site likely to be representative, in order to establish the degree to which ploughing and planting had eradicated or rendered it impossible to interpret the archaeological remains. Upon the results of this excavation, and of others on sites at different stages of the forestry cycle, could be based a logical policy towards the preservation of already ploughed sites from further depredation. If destruction was found to be total, additional stimulus would be provided to ensure in the future full reconnaissance of acquisitions for forestry prior to their planting.

The site was clearly sealed by a thick layer of black peat ranging from .3 — .8m in depth. This deposit was present over all but the Northernmost part of the site and was capped by the wiry tussocky turf familiar to those who have walked on the East Dumfriesshire hills. Difficult to walk on, the turf is extremely difficult to break by hand and this factor combined with the need to strip a large area of archaeologically

sterile peat prompted the use of machinery to clear the area to be examined. Three further difficulties also presented themselves. First the existence all over the site of the ½m deep furrows meant that achieving an even, horizontal strip by machine was very difficult. Furthermore extreme care had to be exercised to prevent a possibly serious accident if one side of the machine slipped into one of the deeper furrows. Secondly the waterlogged nature of the ground outwith the site on three sides and the quarry on the fourth side meant that spoil dumping off site was impracticable if there was to be any question of backfilling. Thirdly in this very isolated area the hiring of machinery presented some difficulty and in the circumstances the machine used was a Fordson Major agricultural tractor with back acter attachment. In the event the power to weight ratio of this machine probably rendered it more successful in thick peat than a wheeled JCB digger-loader and furthermore costs were very much reduced thereby. The only other possible alternative, a caterpillar tracked hydraulic excavator would have experienced grave difficulty in wet peat by virtue of its weight, and the long boom would have rendered digging control difficult in the absence of the stabilisers which are restricted to wheeled vehicles.

The excavation method used was to strip 2m cuttings across the entire site leaving 2m baulks for the disposal of the overburden created — such narrow baulks only being practicable with the consolidated peat which had a very high angle of rest and could be roughly stacked as it was stripped. In this way it was possible to expose c. 50% of the whole interior of the enclosure and to obviate, in theory, the possibility of hut-platforms remaining (those, that is, over 2m in diameter) unexposed in excavation. Total excavation for reasons already mentioned would only have been possible in two seasons, stripping one half in each season. This would have radically increased costs on what, at least at first, was felt to be an experimental exercise with an uncertain outcome.

This 2m strip method is, furthermore, well adapted to the working of forestry ploughed sites. Although at Long Knowe in 1976 the cuttings were set out specifically in order to examine the effect of ploughing on the site on another occasion it would be possible to locate the cuttings so that the 2m baulk coincided with the ½m wide strips sterilised by the plough. Furthermore, with furrows in excess of .5m deep it can be particularly dangerous to work a wheeled machine in any other direction than *along* the furrow line so that some form of strip cutting is more or less dictated.

The effect of forestry ploughing at Long Knowe

The effect of the tine of the forestry plough upon the bedrock surface on the site, the surface within which all visible archaeological features were set, was locally quite destructive. Grooves c.30cm wide by c.20cm deep were cut through the rock and any archaeological features in the path of the tine were eliminated. Nevertheless the forestry furrows were, on average c.2m apart and it became clear that enough undamaged bedrock surface survived to enable useful archaeological reconstruction to take place. The damage, therefore, is massive but restricted and area excavation can yield valuable results from sites which have been subjected to *one* episode of such ploughing. The view of the writer was that in the circumstances prevailing at Long Knowe a second episode of ploughing, after tree cutting, would more than treble the total amount of damage and would, to all intents and purposes, render the site

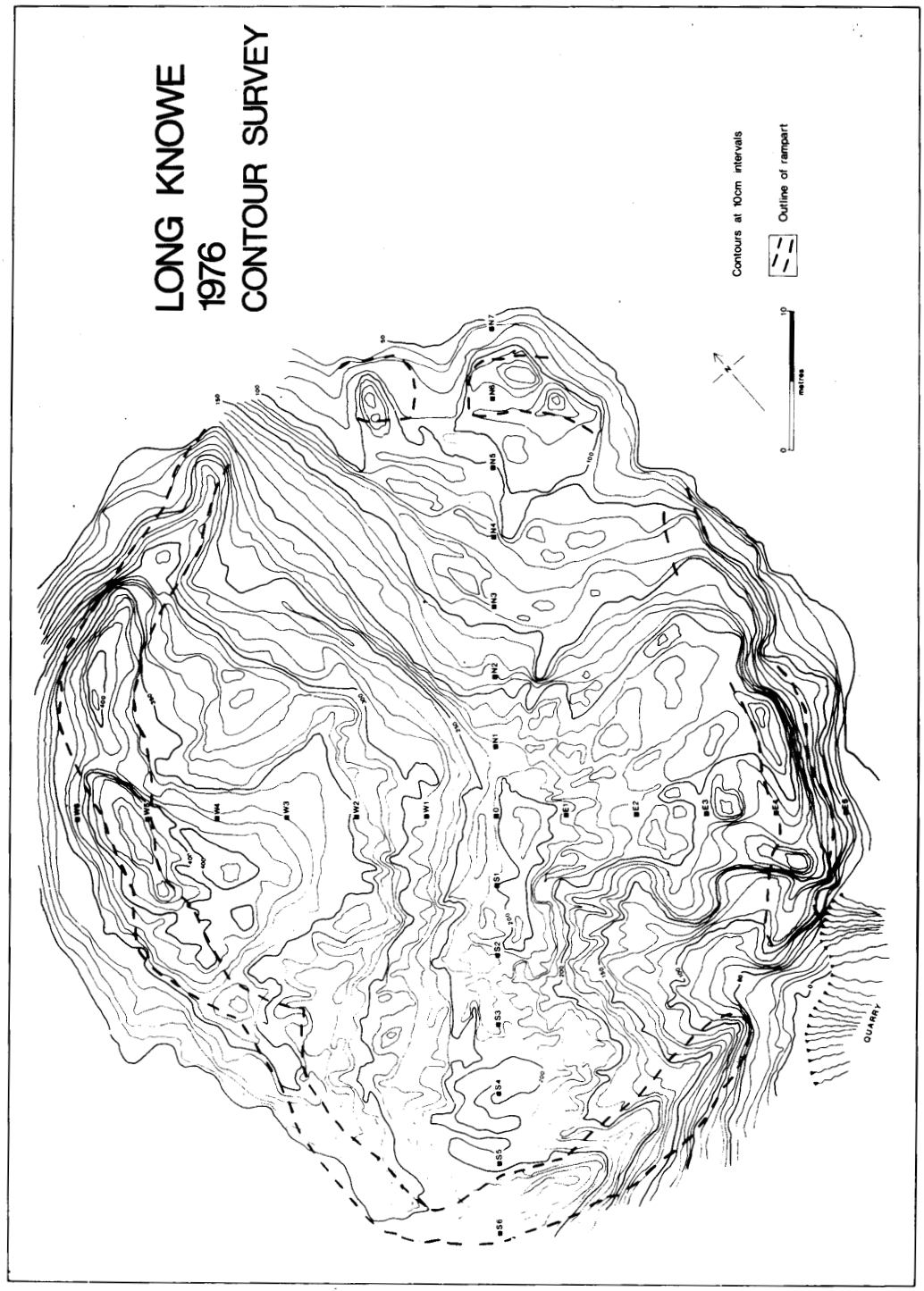
LONG KNOWE
1976
CONTOUR SURVEY
Contours at 10cm. intervals
Outline of rampart
metres
QUARRY

Fig. 2

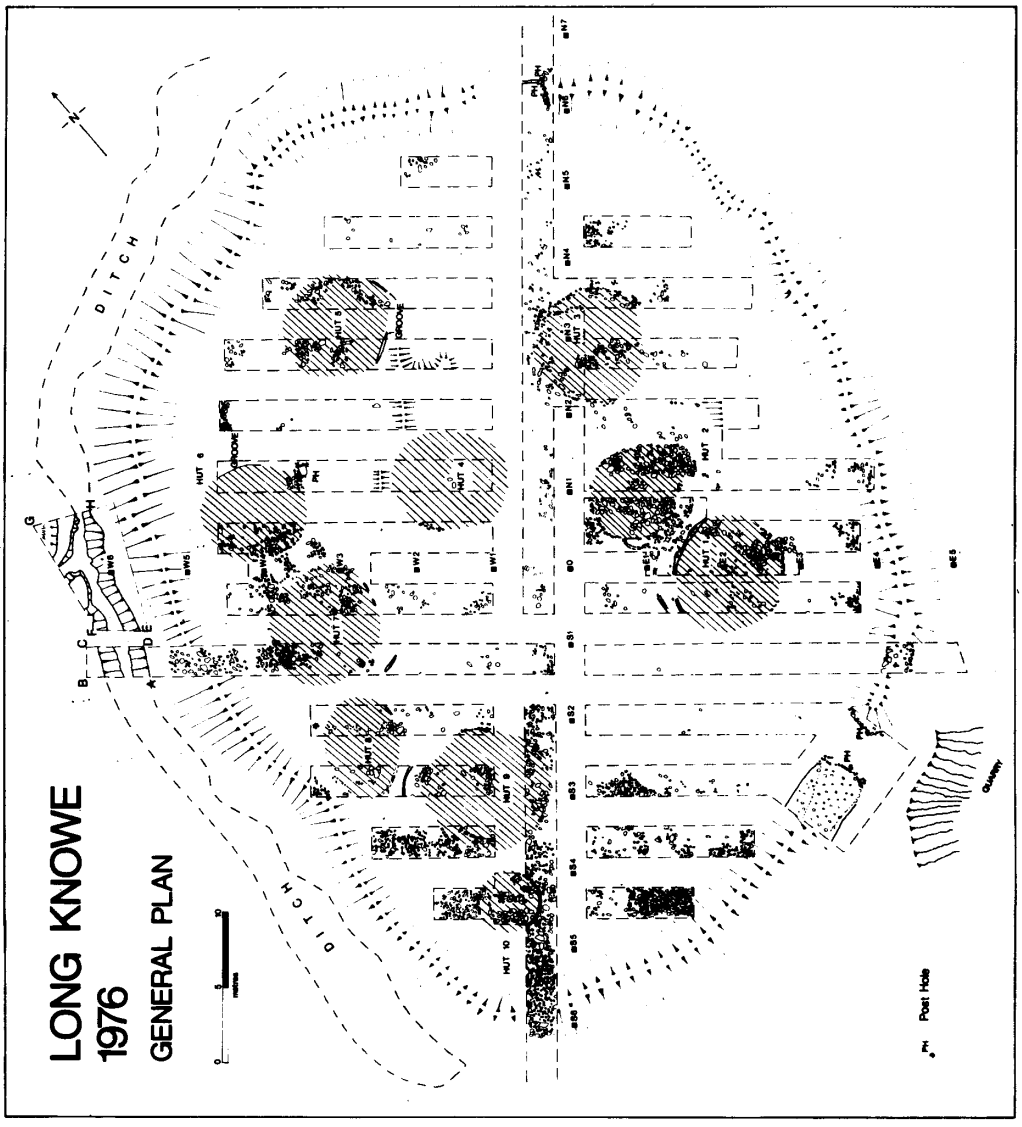
LONG KNOWE
1976
GENERAL PLAN
DITCH
DITCH
QUARRY
HUT 1
HUT 2
HUT 3
HUT 4
HUT 5
HUT 6
HUT 7
HUT 8
HUT 9
HUT 10
PROBE
PH
Post Hole

Fig. 3

impossible to interpret. With laminar rocks such as that present at Long Knowe, ploughing "along the grain" of the rock produces less than 50% of the damage due to ploughing "across the grain". The advice of geologists and geomorphologists will be necessary to determine for individual areas the degree to which the "grain" of rock is likely to remain consistent. If ploughing *was* unavoidable, for example on a very extensive site, and a "grain" could be determined, damage could be substantially reduced simply by agreeing, if possible, direction of ploughing with the forester concerned.

In summary then, while forestry ploughing does create massive damage to monuments subjected to it, one episode of ploughing is likely to affect a relatively minor proportion of a site, provided that the furrows occur at no less interval than 2m, and while quite certainly rendering interpretation and recovery more difficult, does not totally prevent useful results being attained. Scheduling and other forms of preservation should therefore certainly go ahead on sites which have been subjected to *one* phase of forestry ploughing of this type — indeed it might be argued that this need is the most urgent as it would appear from the evidence of Long Knowe that second phases of ploughing must be prevented at all costs.

Finally it must be borne in mind that at Long Knowe the planted trees were cut only three years after planting to allow excavation. The effect of twenty-five years of root action is something of which we know very little and, in the interim, sites which are ploughed and are thought to be of sufficient interest to merit scheduling should have the planted trees cut to prevent further root damage. The excavation of a site which has been through the entire forestry cycle — through to mature clear-felling — must remain the final phase of this experimental exercise.

The Excavation of the enclosure at Long Knowe

The Interior

Description

The site was stripped by the method outlined above, cleaned manually and then the entire area drawn at a scale of 1:20. In areas where the baulks were apparently a major hindrance to structural interpretation these were cleared by hand to reveal larger areas. The peat which covered the site lay directly in contact with the bedrock with no perceptible intervening turfline. To all intents and purposes the cultural surface on the site was the bedrock with all features detected as set therein.

After repeated inspection it became apparent that the partial remains of the foundation slots of ten circular huts survived within the enclosure (see fig. 3).

Hut 1 (see fig. 5) was 7m in diameter with its entrance apparently in the SE quadrant and paving inside the hut running out through this entrance. No trace of a porch structure or any other adjunct was located. The hut was apparently of two phases — the earlier phase, now much ruined, set slightly to the NW of the later phase. Two post-holes set close together in the NE sector of the hut give the only indication of possible secondary roof supports.

Hut 2 (see fig. 5 and Plates III and IV) 6m in diameter with its entrance again apparently to the SE and again with paving inside the hut running out through this entrance. No trace of a porch structure was encountered. Again the hut was

apparently of two phases with the earlier phase again much ruined centred slightly to the south of the later. It is very likely that the earlier phases of Huts 1 and 2 could not have co-existed as they would have been co-terminous even if the projected lines of the grooves would not overlap. Again two post-holes set close together in the SW sector of the hut perhaps give a vestigial indication of roof support structure.

Hut 3 (see fig. 6) This area of the site from peg N2 through to the NE gateway was not covered by peat formation and a grey brown gley formed the natural surface. The lack of protection by peat growth and the nature of the subsoil meant that this hut was in very poor condition on retrieval. The stones set within the grooves were barely ground fast at all but were simply sitting on the natural surface — which was presumably eroded. The form of the hut was thus only retrieved by careful manual cleaning and stone planning. Some elements of paving survived in the SE sector of the hut and the absence of grooving or stone setting in this area might indicate that the entrance to the house lay at this side. The house was clearly of two phases again, with an earlier phase set slightly to the south of the later. The maximum diameter is 7m.

Hut 4 (see fig. 7) This house was represented by one short stretch of stone packed foundation groove on its SW side. Elsewhere all trace of its perimeter had completely vanished and only two slabs, possibly representing paving, were located in the excavated area of its interior. The diameter of the hut as indicated on the site plan (see fig. 3) is arrived at simply by extrapolation from the single preserved arc of foundation slot. Certainly a house of this size would have "fitted" nicely the local contours of the bedrock.

Hut 5 (see fig. 8) The evidence for the existence of this hut is again minimal. A groove, with no stone packing extant within it, survives on the east side of the area and an area of paving is present in the SW sector possibly indicating the presence in this sector of a door. Further stone scatter appears to define the area of the hut on the N and NE boundary. Again the area postulated for this hut is a level patch within the undulating interior of the site.

Hut 6 (see fig. 9) The existence of this hut is extrapolated from the survival of one stretch of stone packed groove on the south boundary of the proposed area, a length of groove or slot cut in the bedrock but with no extant packing in the north sector, and a post-hole or short stretch of groove in the NE sector. Paving at this point may indicate the existence of an entrance although further paving occurs along the south side of the hut area.

Hut 7 (see fig. 9) This hut would seem to exhibit two phases of construction in so far as the scanty evidence allows any reconstruction. The two phases cannot be placed in any chronological relationship. One phase is represented by a post-hole or short stretch of groove on the south edge of the hut area as marked on the site plan (see fig. 3) and by a further two short stretches of groove on the east boundary. A mass of paving in the SW sector possibly indicates the presence of an entrance. Paving also occurs sporadically in the north half of the hut area. The other phase is simply represented by one short stretch of foundation slot apparently not conforming with the other elements suggesting the existence of another hut set slightly to the east.

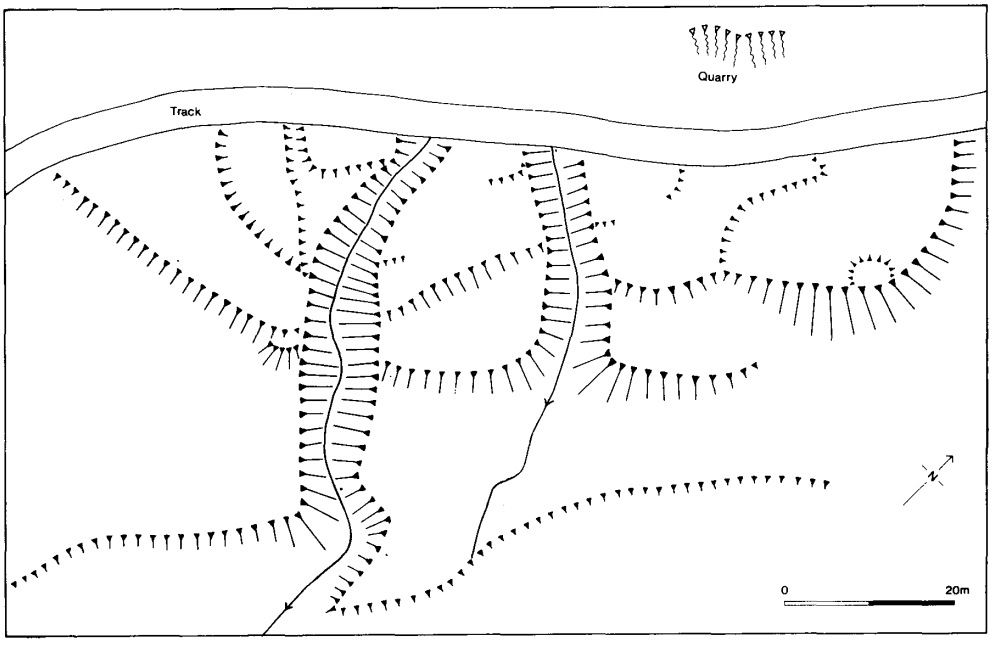

Fig. 4. Long Knowe, 1976: Natural terraces to South of the site.

Hut 8 (see fig. 10) Huts 8, 9 and 10 were set in the SW-most part of the site where the natural subsoil comprised a brown/orange loamy soil set over the bedrock. The tracing of soil dug features in this area, while difficult, did prove possible and the slightly greater detail pertaining to these huts is presumably a function of this distinction. Hut 8 was defined on its eastern-most side by a soil dug groove with some stones set within it. A concentration of paving, also on the SE side, may indicate the position of the entrance.

Hut 9 (see fig. 11) The extent of this hut was extremely difficult to define as several short stretches of grooving were retrieved which almost certainly cannot represent a single phase of construction. It seems likely that a minimum of three phases of construction are present with a concentration of paving in the east sector of the hut area indicating an entrance here during at least one phase. A very well preserved stretch of stone packed slot survives on the north side of the area — elsewhere the vestiges of slots survive only as soft filling in the already soft loamy material with very little colour difference apparent.

Hut 10 (see fig. 12) The smallest hut on the site (diameter approximately 4m) had extensive and well laid paving within it that had been badly damaged by the plough. Both its east and west sides were clearly defined by a soil cut groove in which little set stone remains. No real indication of the position of a possible entrance survives in the excavated area — although the majority of paving is concentrated in the SW-W sector.

Table 1 Details of hut construction

Hut	Paving	Min. No. Phases	Entrance	Max. Diameter	Sector where paving occurs	Area
Hut 1	√	2	SE	7m	SE	38.5m²
Hut 2	√	2	SE	6m	SE	28.25m²
Hut 3	√	2	E?	7m	SE?	38.5m²
Hut 4	?	1	?	6.5m?		33.2m²?
Hut 5	√	1	SW?	6.5m?	NW	33.2m²?
Hut 6	√	1	E?	6m?	NW	28.25m²
Hut 7	√	2	SW?	7.5m	NW/NNW	44.2m²
Hut 8	√	1	SE?	7m??	SE	38.5²??
Hut 9	√	3+	E??	7.5m??	S?E?	44.2m²??
Hut 10	√	1	?	4m	SW/W	12.5m²

Quite clearly a turf line overlying the bedrock had been lost and the foundation slots in many instances survived only as a minimal trace often less than 2cm deep. It seemed also that the bedrock surface itself had been somewhat eroded. Only Huts 1-3 were preserved in any degree of completeness and the implications of this differential state of preservation will be considered below. The huts were characterised not only by the slots apparently marking their outer wall-lines but also areas of paving set within them and the occasional location of a post-hole for retaining vertical members within the floor space possibly acting as secondary roof supports. These secondary roof supports were only retrieved very sporadically and no pattern could be determined. Presumably the majority of the supports were either not ground fast at all, or only marginally so, leaving little or no archaeological trace. The paving was much worn and in Hut 2 there apparently had been in places two layers of paving, one either acting as make-up to level the floor for the second layer or, possibly, as re-paving of an area where wear and tear had led to unevenness. All the paving showed signs of wear and in the three cases where the shape of the house was at all complete (Huts 1, 2 and 7) appeared to concentrate within the entrance area (S-SE sector). The foundation slots survive as shallow grooves within the weathered bedrock which occasionally exhibit stone packing remaining in position. This stone packing comprised small flat slabs of rock (although given the nature of the laminar rock upon which the site is set it would have been a difficult matter for the hut builders to obtain any other type) set longitudinally within the grooves with a few

slabs set cross wise. No soil indications survived as to the nature of the timber uprights which presumably were enclosed by this packing.

Interpretation

Within the narrow confines of the groove two structural possibilities would appear, to the writer, to have been possible — one, plank walling and the other, a framework of small diameter timber. While the erection of plank walling would certainly have been possible, the writer takes the view that the lack of evidence for

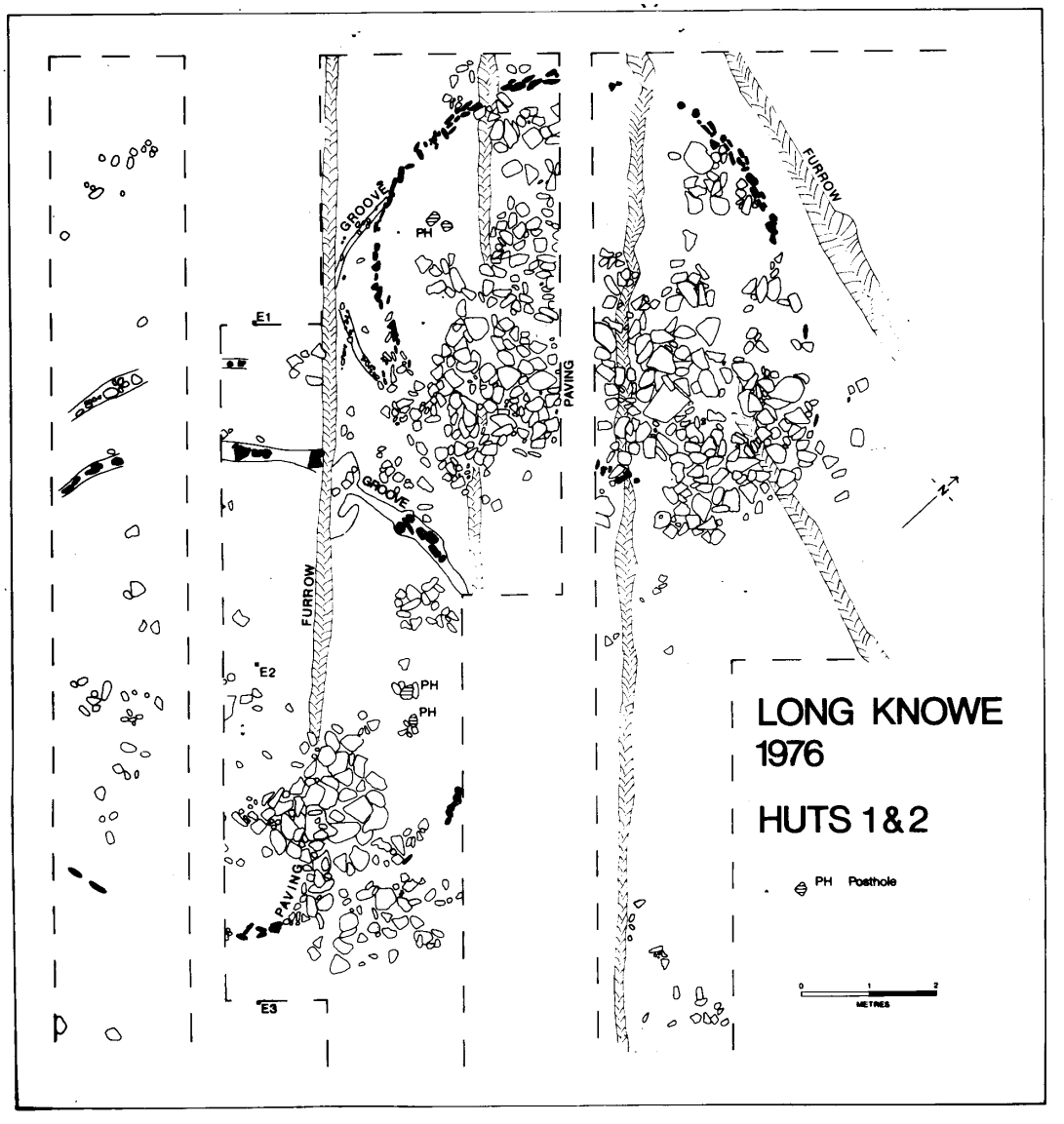

Fig. 5

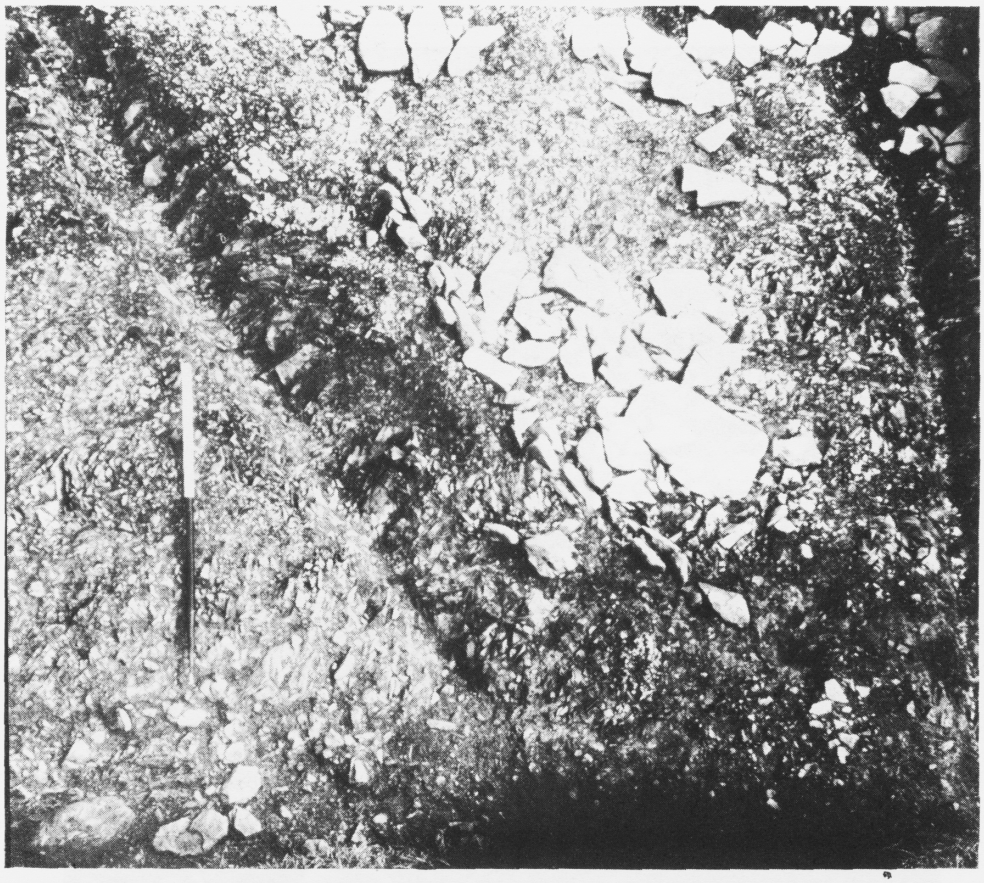

Plate III. Long Knowe, 1976: Hut 2 from north, showing furrow passing N. sector of hut.

roof supports within the huts both at Long Knowe and in a number of instances at Boonies renders this unlikely, as the roof structure would have to rest solely upon the plank wall — the whole thrust of the roof mass being directed against apparently unreinforced vertical planks. Such a constructional technique would clearly lead to instability unless the planks were linked to one another by, for example, tongue and grooving. Even with this refinement, however, the lack of any integral link between the wall and the roof of the hut would probably place undue stress upon the plank timbers which can never have been set within the ground to any great extent. For this reason the writer would favour as a likely interpretation of the nature of these structures the existence of long relatively thin and supple branches of timber held fast within the "ring groove" at the base — jammed into position by the stone packing and bent over at the top to be held together at the point of the roof — rather like an old-fashioned bird cage — to produce a tent-like structure. The framework thus created would then be clad with hurdling or similar fabric and then perhaps daubed with some form of *pisé*. The occurrence of much *xylem*, without bark, and cut saplings in the ditch may possibly be associated with construction of such a structure.

Plate IV. Long Knowe, 1976: Hut 2 from north west, showing plough damage to hut structure.

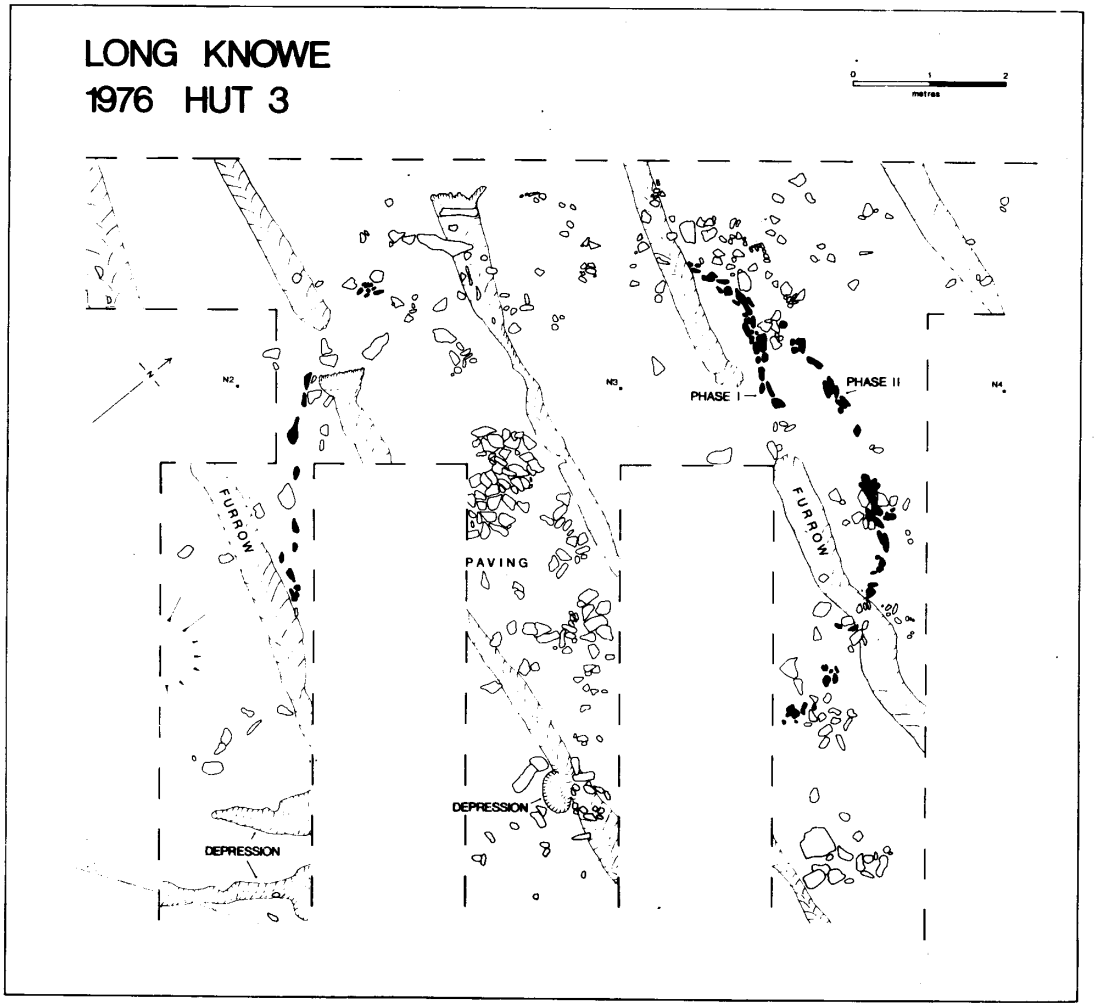

Fig. 6

Whichever of the two methods used, it would seem to the writer that neither would have produced a structure adequate for the retention of cattle or horses. The occurrence of paving within most of the huts would also appear to suggest that these at least were used for human occupation (Huts 1, 2, 3, 5, 6, 7, 8, 9 and 10) — the paving in the case of Huts 1, 2, and probably 3, 5, 7 and 10 apparently occurring in the entrance of the huts or for use by humans *and* animals as well as for storage. The radically differing size of the huts (see table 1 and fig. 3) however may well argue for differences of function far too subtle to perceive in the preservational and archaeological circumstances prevailing at Long Knowe. The normal position for paving in the huts at Long Knowe would appear to indicate that by and large (in the instance of Huts 1, 2, 3, 5, 6, 7 and 10) the entrances were placed so as to be away

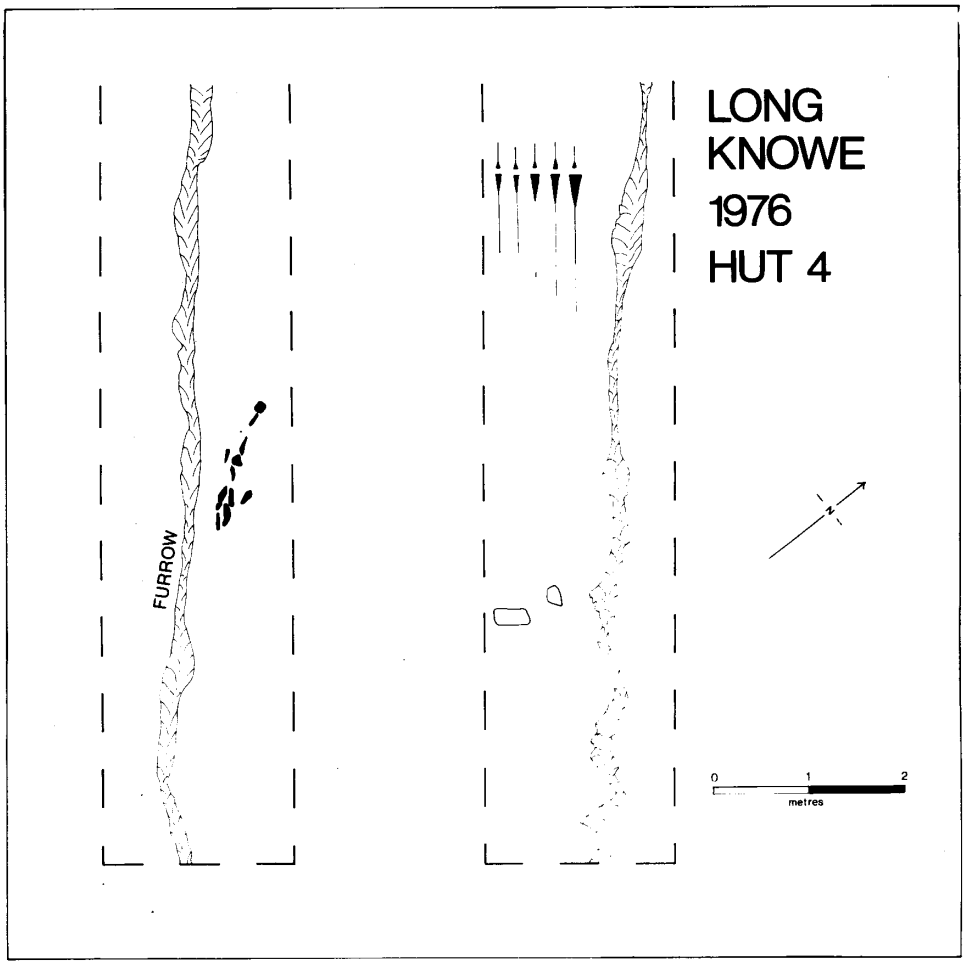

Fig. 7

from the yards at both the southern and eastern ends of the site. The only exceptions to this pattern are Hut 8 where a concentration of paving clearly leads on to the yard, Hut 4 where no recognisable pattern survives or existed, and Hut 9 where the situation is far from clear but where a concentration of paving does exist on the southern yard side. If one may assume that animals driven into the enclosure were kept in the yard area then it would seem to be ill-conceived, if the animals were intended to enter the houses, that the entrances should consistently point away from the yard. More likely would it appear to the writer that the houses were orientated in this fashion to *discourage* intrusion by animals and the exceptions to this pattern (?Huts 8, 4 and 9) may in themselves reflect some difference in function whereby this consideration was not so important. It may also be possible to indicate (although, of course, not prove) that a housing plan that reveals this degree of consistency of layout around one unit (in this instance the yard) may be, at least to some extent, of one conception and have functioned as one unit.

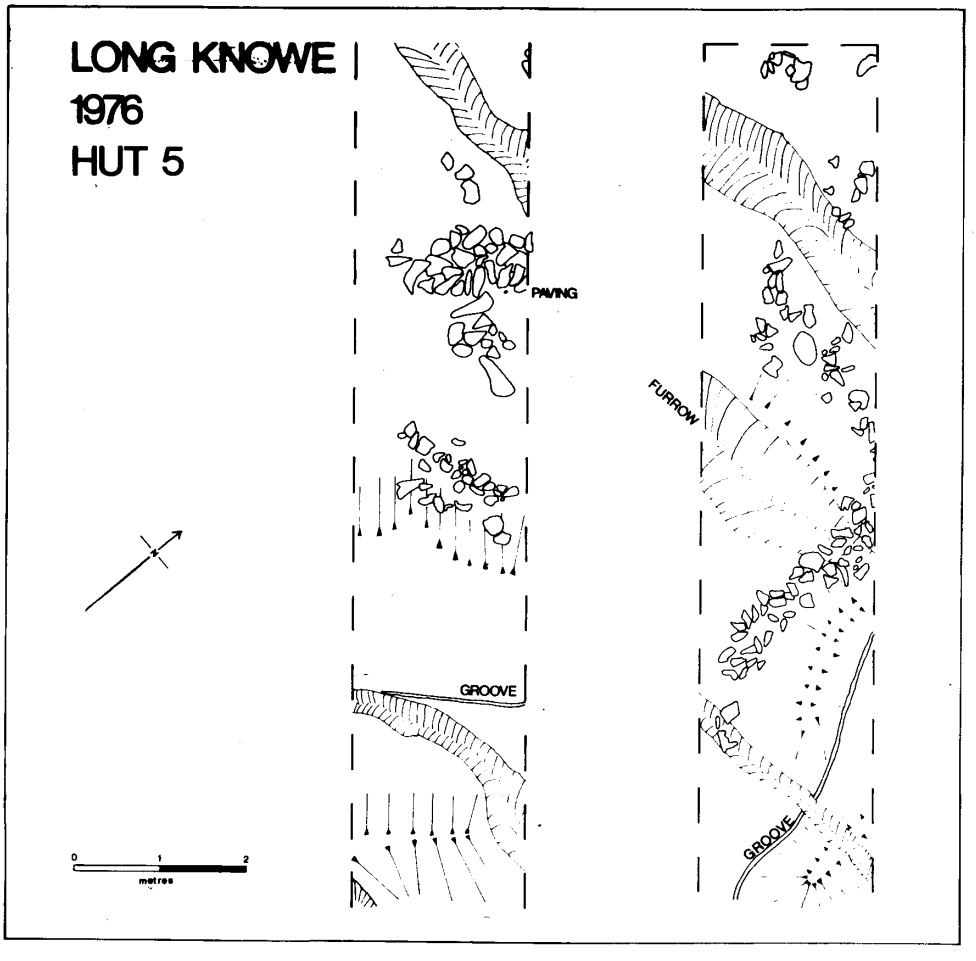

Fig. 8

If the houses, by and large, were not intended to house or receive animals we cannot assume that they were all intended to accommodate human beings. The need for storage space, the social needs for separation of sexes and age groups and the possible segregation of activities may well have required any number of covered areas for a given unit of population and it must be said that perceived increases in the number of covered units within an enclosed settlement (*pace* Jobey 1975) may no more reflect increased population than any number of other economic and social variables.

The recognition of more than one phase in the existence of five of the houses with a maximum of three phases in the instance of Hut 9 must presumably indicate a relatively extended life for the settlement. So flimsy is the evidence for these structural phases in a number of instances (e.g. Hut 9) that it is indeed likely that traces of re-structuring elsewhere will have disappeared entirely. Therefore in the circumstances as they prevail at Long Knowe the writer would feel that to base any

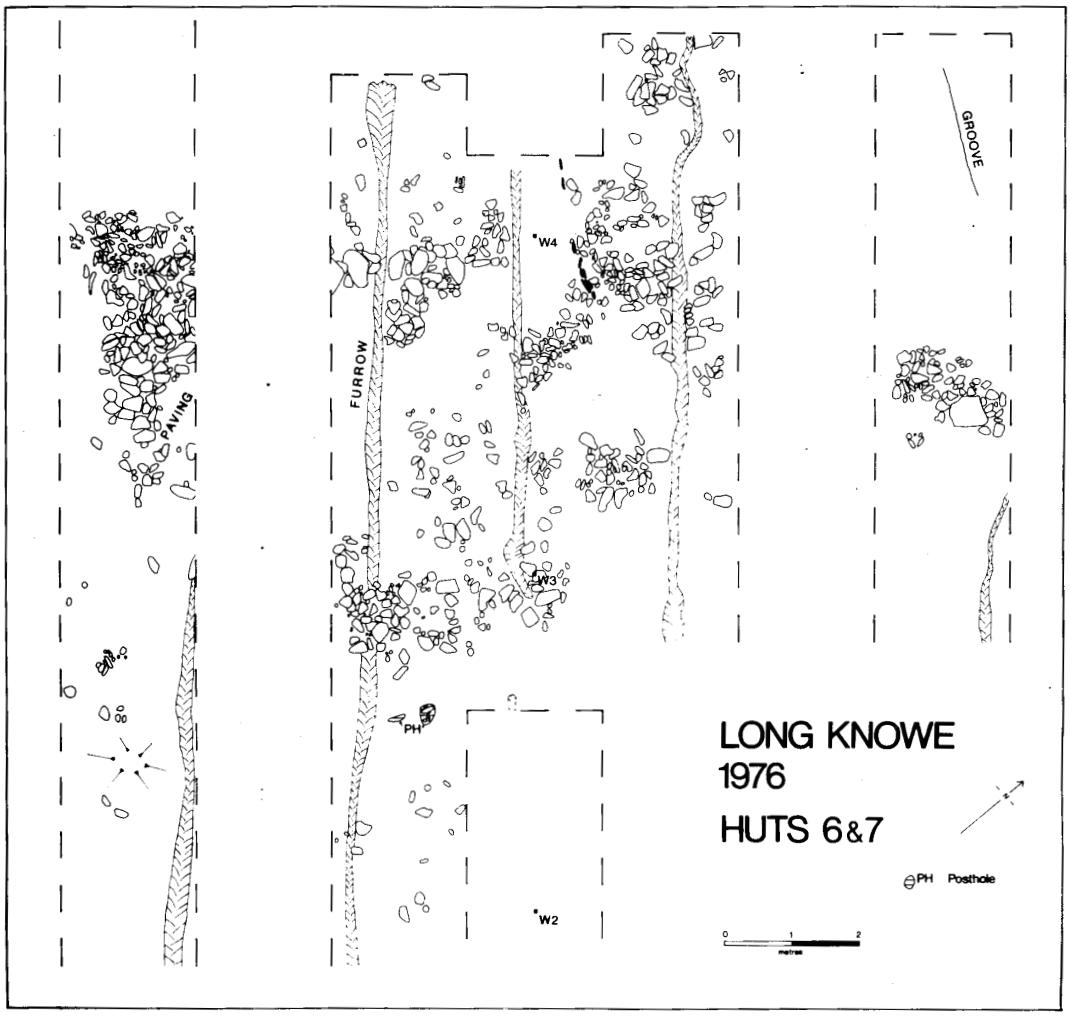

Fig. 9

conclusions as to expansion or contraction of the settlement upon this information would be ill-advised. Two points only will be made in this regard. First that the very marked better condition of survival of Huts 1 and 2 may indicate that they survived on the site until the latest phase of occupation and that subsequent disuse left them to survive to a greater degree intact. Secondly that the unique lack of any paving in Hut 4 may reflect the early disuse of this house with consequent robbing out of the paving for re-use elsewhere (for example in the re-paving of Hut 2). No indication, of course, can be discerned as to the differential function of the house in the absence of any artefactual material whatever from the site.

The excavation of the area behind each gateway revealed traces of simple gate-structures (see below) and in the case of the southernmost gate where peat covered the area a 6cm layer of brown, ill-smelling matter lay under the peat which gave the impression of being compressed and comminuted dung. The lack of

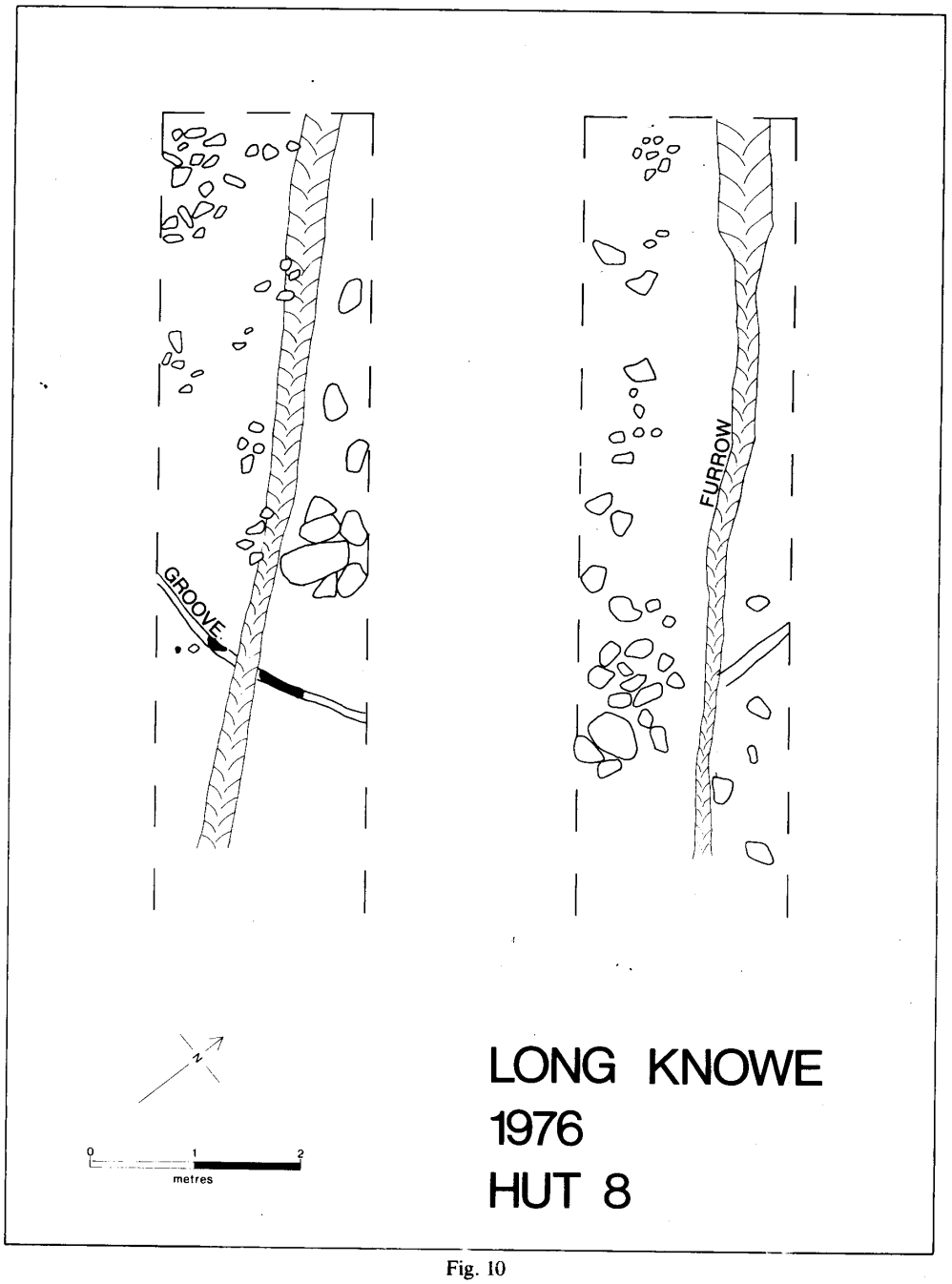

Fig. 10

structures and this deposit would seem to accord well with the function proposed in the term "yard" for this open area behind the gates.

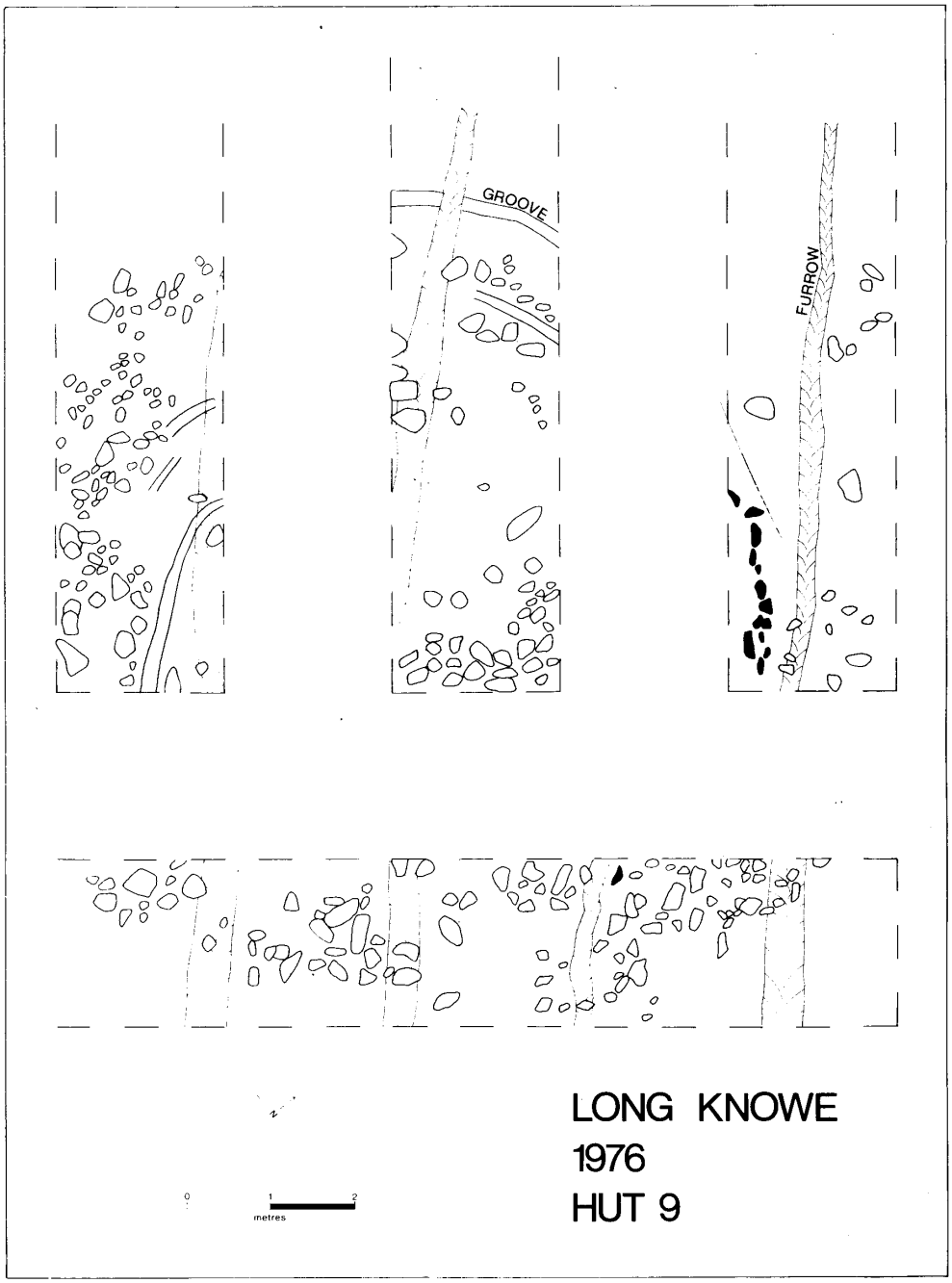

Fig. 11

The Bank and Ditch

Where sectioned the enclosed bank appeared to have been faced with stone

blocks with a filling of earth and stone derived from the immediate locality. On the west side of the site the material for the bank was presumably furnished from the cognate ditch dug across this area of easy access. No evidence was retrieved for any timber or other superstructure existing on top of the stone faced bank which it was felt, from an examination of the quantity of tumbled debris, probably, when in use, attained a height of at most 1.5 metres. No evidence was encountered of any rebuilding or alteration of this bank.

The ditch on the W and NW side of the site ranged from 1.1 — 0.50m in depth and cut in a broad V-section with a rounded base. It had apparently been reinforced on its outer lip by a small counterscarp bank which had carried at one point a palisade

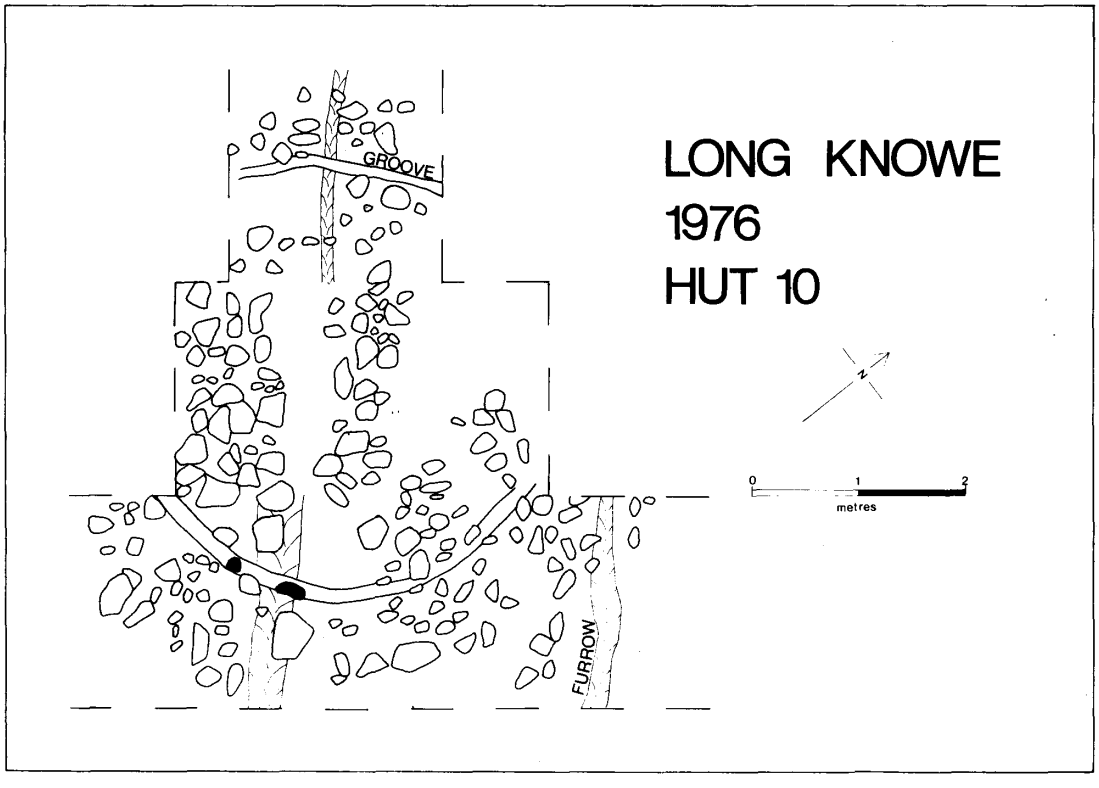

Fig. 12

of vertically driven stakes of birch wood — none more than 2-3 cms in diameter. The ditch was dug into the natural subsoil which on this part of the site was a blue/grey fine grained alluvial clay. Its filling (see figs. 13 and 14) comprised a primary silt (Layer 6) washed in, probably rapidly, from the bank and ditch sides containing a large quantity of waterlogged twigs and sticks of birch and other woods (see Section 2.) No substantial pieces of timber were located in the area excavated and few fragments revealed any traces of working. A secondary silt (Layer 5) of cleaner composition also contained substantial quantities of birch wood. A small number of animal bones (see Section 4) in extremely friable condition were retrieved from this waterlogged silting deposit. Peat formation (Layer 4) succeeded this phase

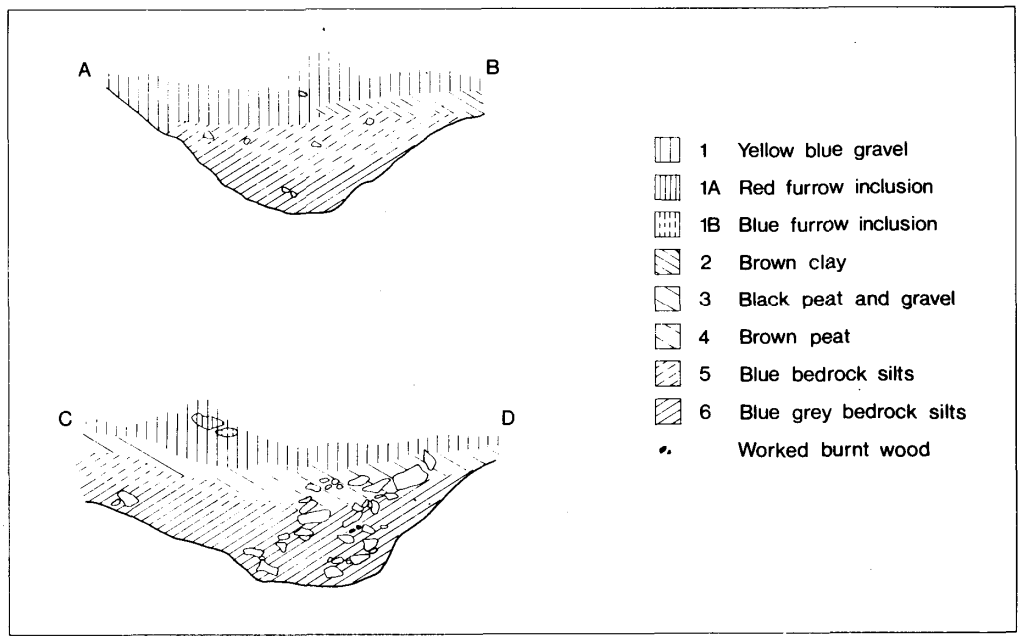

Fig. 13. Long Knowe, 1976: Ditch Sections 1:60.

of filling and has continued apparently until recent times with intervals when turflines have formed (Layer 3) or when elements of bank material (either enclosure bank or counterscarp bank) have been allowed to accumulate (Layer 2). The relative immediacy of peat formation on the site after its desertion, both in terms of the interior of the site where peat directly seals the structures and in the ditch where it seals the secondary silting of the ditch, which would seem to have accumulated fairly quickly, should be noted. The existence of the counterscarp bank is inferred from the dug material reappearing in the ditch fill from the outer edge apparent in Sections A-B and E-F. (see figs. 13 and 14).

In the west face of the ditch (see fig. 3) there appears to be a declivity which represents a further ditch forming a junction with the enclosure ditch and running away to the west — towards the burn at the centre of the boggy area on this side of the site. Further excavation in this area was not possible as the limited pumping facilities (kindly made available by Economic Forestry Ltd.) were not able to deal with the influx of water as the ground level dropped towards the burn and probing proved unable to differentiate between the soft ditch fill (if such there was) and the equally soft boggy subsoil. It is possible, however, that a secondary enclosure completely masked by the growth of the bog is present on the west side of the site, possibly acting as an outer enclosure for animals and as a means of (fairly minimal) defence of the water supply.

The Gateways

The southern gateway was totally excavated (see fig. 15) and appeared from the retrieved evidence to be of very simple form. A slight thickening of the enclosure bank is noticeable on either side of the entrance to produce a "gate passage" 2.2m wide and 3m long and the gate itself appears to have been suspended from two posts

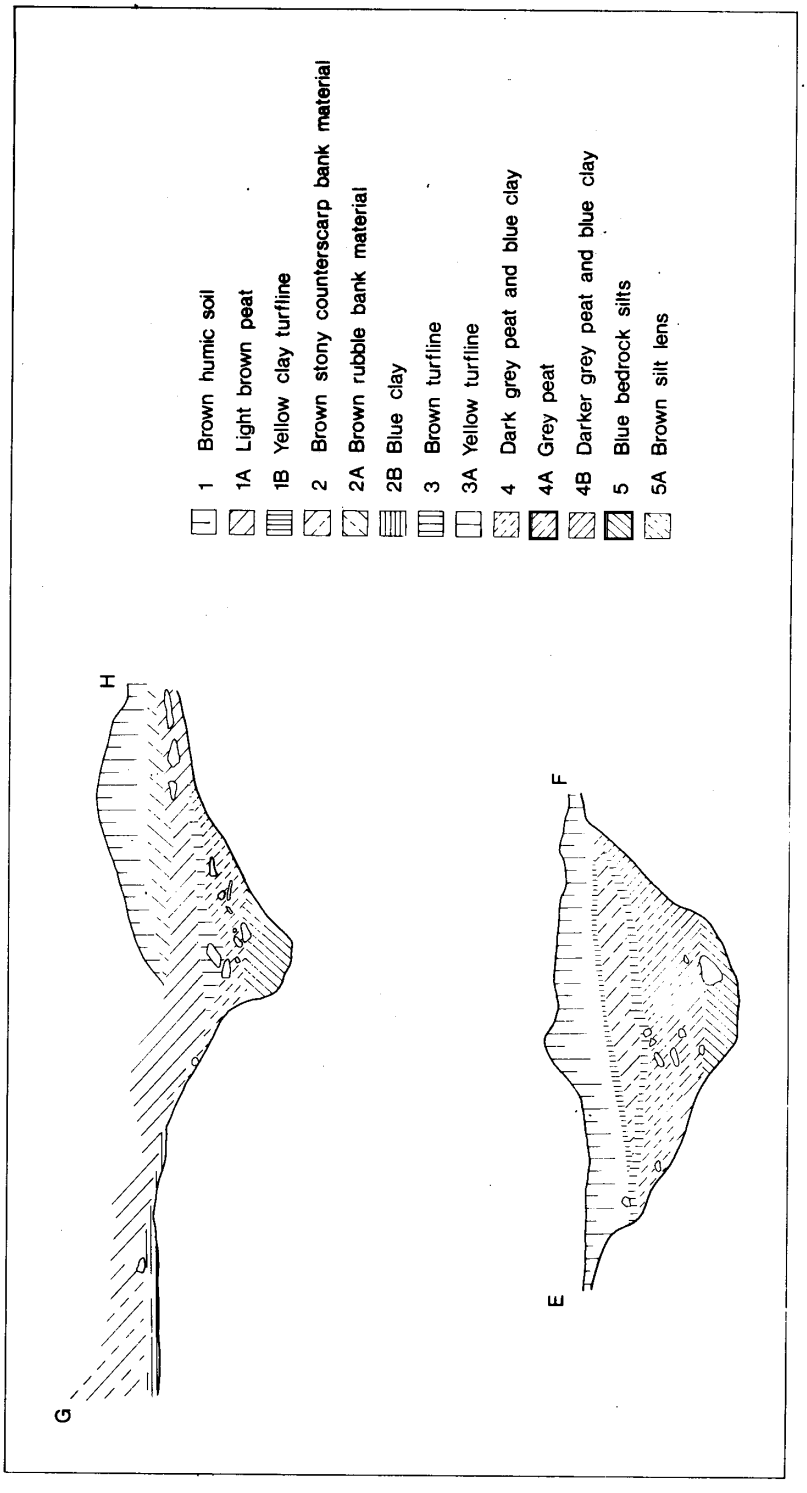

Fig. 14. Long Knowe, 1976: Ditch Sections 1:60.

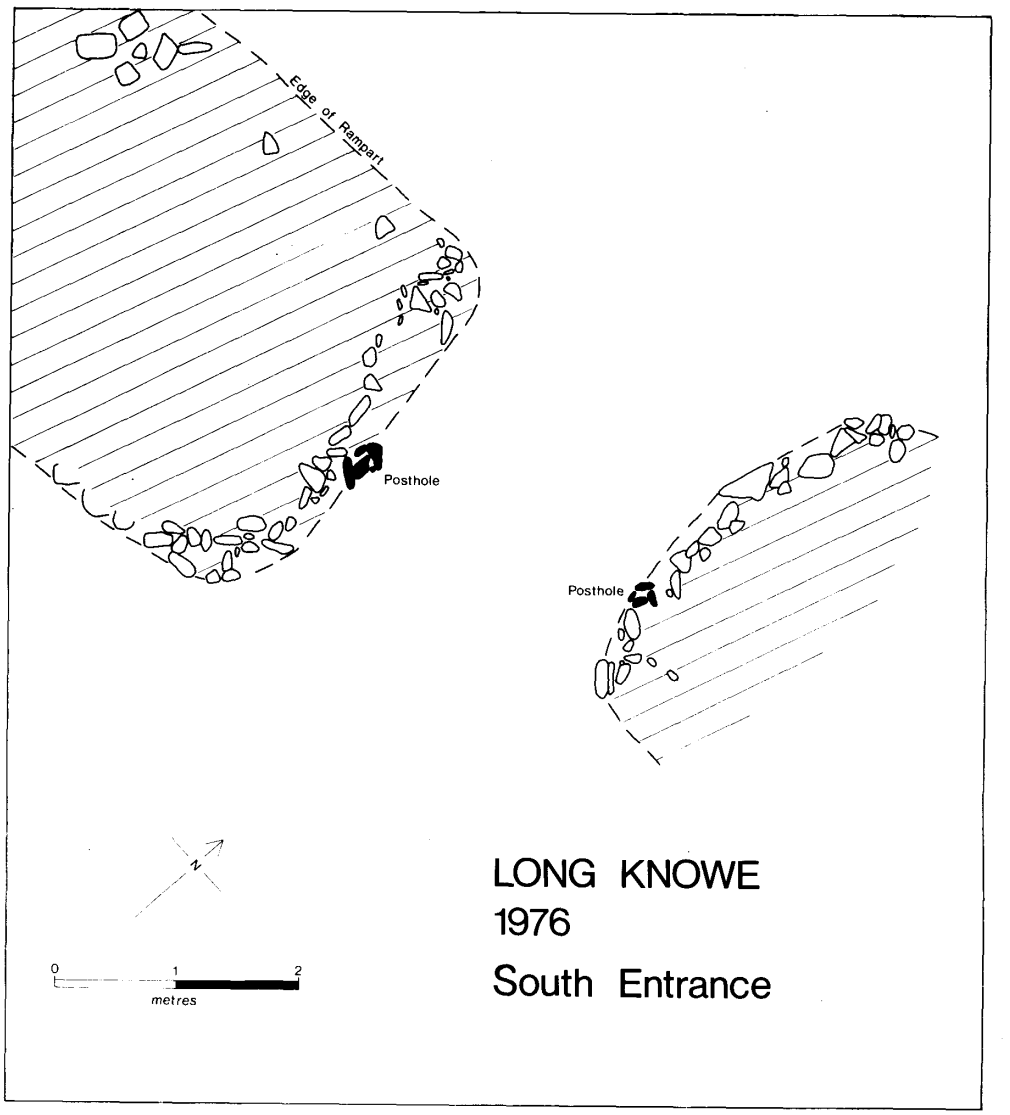

Fig. 15

set beside the bank terminals in the "half-way" position between the front and rear of the bank. No central gate stop mechanism was located but the very worn nature of the bedrock which formed the roadway made this an extremely unlikely discovery. No evidence was retrieved of replacement of the gateposts involving any recutting of post sockets.

The eastern gateway (see fig. 16) was only partially excavated in so far as it lay within the main E-W 2m strip crossing the site. It appears to have been of approximately the same dimension as the southern gate but its timber furniture appears to have been rather more complex. Only one (the south east) side of the gateway was examined. Two post-holes were apparent one of which appeared to be linked to a sill beam bench or "drop trench" in much the same way as in the gateway

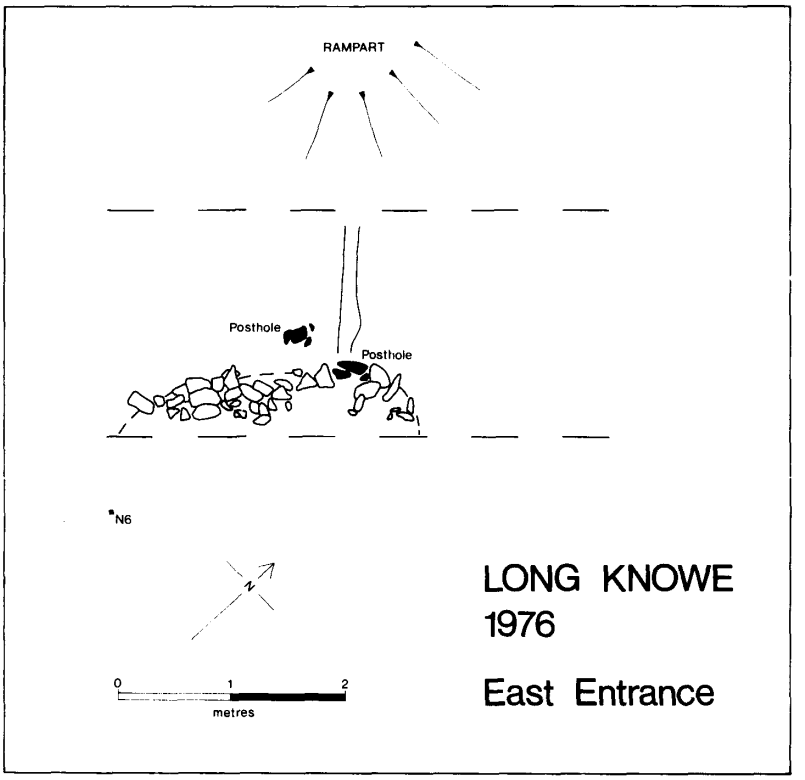

Fig. 16

at Boonies, however the lack of any further furniture either in the form of further side posts or a central drain to maintain a dry roadway surface renders the Long Knowe gate an altogether simpler affair.

In neither gateway was there any clear evidence of roadway metalling. In the southern gateway a quite steep slope of worn bedrock formed the surface and the eastern gateway exhibited only a plain earthen floor.

Artefacts

There were no recognised artefacts of any period located during the excavation. Careful inspection of stone blocks for quern surfaces yielded no recognised quern fragments. No Romano-British material of any kind was found on the site.

(For discussion see Section 6 *infra).*

SECTION 2

REPORT UPON THE WOOD

by John W. Barber C.E.U. (Scot), Falkirk

This material was received by the author in a rather poor condition. It had been stored in a dry and drying atmosphere for almost one year in circumstances beyond the excavator's control. However, use of fungicide had prevented fungal attack and prolonged soaking, first in alcohol and water (15% V/V) and later in water, reflated the vessels etc., quite successfully.

The wood from the ditch had been excavated in three spits. It consisted, mainly, of short lengths (5 to 45 cms long) and twigs and small branches, ranging from 1 to 6 cms in diameter, though the bulk of the material clustered closely around 2 cms in diameter. In total some 20 kgs of wood was presented for study.

To deal with this large volume of material the wood from each spit was firstly divided into types on the basis of macroscopic characteristics and these types were identified with the aid of various keys (e.g. Laidlaw, 1960) To confirm the visual identifications thin sections of a range of the twigs of each type were prepared for microscopic examination. At this stage it became clear that no significant differences existed between the material from each excavated spit and this, combined with the location of the spit within one clearly defined deposit allowed the material from the spits to be amalgamated, which considerably simplified our analysis.

Three 'types' of wood were detected from amongst the mass of twigs and branches. A fourth class, 'Natural' wood, was constituted by the remainder which could not be attributed to any of the first three. A final category was necessary for the fragments of *xylem*, on which no trace of bark nor of other diagnostic structures survived. In table 1 the percentage attributable to each of these five classes is listed. A proportion of each class was then sectioned and identified. The proportion varied from 10% for each of the first three classes to about 30% of the fourth class and total examination of the *xylem*.

This programme revealed that only four species were represented, willow *(Salix sp.)*, birch *(Betula sp.)*, alder *(Alnus sp.)*, and hazel *(Corylus sp.)*. Types 1 and 3 proved to contain only willow. The surviving characteristics were not sufficient to identify uniquely which species of willow were involved and it is, unfortunately, not currently possible to discriminate between the species of willow on the basis of their micro-anatomical structures. In type 2 birch predominated but alder and hazel were strongly represented. The qualities of the bark were those on which members of this type were selected and, clearly, these must be reviewed as less than reliable.

Of the fourth 'remainder' class equal amounts of willow and hazel constituted its bulk with a little birch and no alder. All four species were represented amongst the xylem with birch and alder predominating.

The species noted are those that might have been expected in a waterlogged ditch. However, a small number, 15, of the twigs had been cut at one end with a sharp metal implement. A single slashing chop is indicated in most instances (see Plates V and VI). Although the cut material represented a mere fraction of a percent of the total, its presence suggested the possibility that the twigs may have been harvested for fodder, as discussed by Sweingruber (1975). These are not the best fodder species but such a usage is not impossible. The microscopic slides were therefore re-examined with a view to discovering the season in which the wood had been severed, by man or otherwise, from the trees.

In the cases of all four species the year must be divided into three parts. During spring the annual growth commences and the anatomical structures, or rather, arrangements of the structures characteristic of the species and season, are laid down. In summer the sizes of the cells laid down, on average, decreases as does the rate of deposition until, with the onset of autumn, growth ceases and no further activity takes place, until the following spring. The seasons which are represented in the wood, therefore, are spring, summer and the winter half of the year, ie. autumn and winter. At various times during the year twigs and branches are broken from standing trees by storm, animals, lightning and other natural forces.

In the case of these uncut twigs and branches, all of the alder from which the evidence could be gleaned had fallen in winter. The willow had, on the other hand, a more varied distribution. The majority of it fell in winter, but much of it also came down in early spring with some in the summer as well. Birch was almost exclusively restricted to the summer months. Where the evidence existed for hazel wood the suggestion is that it came down in the early summer.

The cut examples were almost all willow, 13 examples, with one each of alder and birch. The cut willow displayed the same variability of cutting season whilst the alder and birch had been cut in the winter. There is, therefore, no real difference between the felling seasons of the material which bears cut marks and that which does not.

On balance therefore it seems unlikely that the twigs represent a deliberate harvesting for animal fodder (Troels-Smith 1960). An alternative interpretation can be offered albeit tentatively. It was noted, in examining the microscope slides that some of the uncut wood showed evidence of being derived from the same trees as some of the cut samples. This was, perhaps, best exemplified in the caes of three slides prepared from hazel wands, one of them bearing a single chop mark at one end. All three samples exhibited two short arcs of spring wood adjoining the spring wood line of an otherwise normal annual ring. These 'false rings' were so similar in size, position and organisation that no conclusion other than their derivation from the same tree is possible. In two other cases, one of alder and one of willow, comparable anatomical 'signatures' suggest that we are dealing with wood from individual trees.

Plate V. Long Knowe, 1976
Twigs, showing single slashing chop.

Plate VI. Long Knowe, 1976
Enlarged view of twig in Plate V.

It is therefore possible that the cut marks betoken occasional clearances of the scrub growth within or bordering the ditch. The majority of the wood may have simply been torn down with only a few recalcitrant or awkwardly placed stems slashed. There is, unfortunately, simply not enough evidence to test this hypothesis but it is not inherently improbable and its formulation here may encourage others to embark on the tedious work necessary for its testing elsewhere.

The *xylem* from the ditch may have been deposited there, by purely natural agencies; by the death and decay of the ditch-side trees. Were this the case we should, of course, expect the species represented in the *xylem* to occur with the same relative frequencies as they do in the twigs and branches. These relative frequencies are listed in Table 2. Even to a visual examination it is clear that the correlation between the frequencies is remarkably poor. A Chi-squared test carried out on the raw data, with three degrees of freedom, confirms the obvious significance of differences between these proportions. In fact the non-correspondence of the proportions amounts to a negative correlation. This is best explained as resulting from deliberate selection of the wood in a preference order the inverse of its frequency of natural occurrences.

It is tempting to conclude that man is the cause of the difference. Given its location within a man-made ditch and man's extensive use of wood for structures etc., the *xylem* from the ditch may well represent woodworking within the enclosure. This is certainly true of two pieces at least. One of them was a fragment of a radially split birch beam, completely carbonised (Plate VII). The second was a willow peg, 18 cms long and 3 cms in diameter, the surface of which was charred to a depth of up to 1 cm. The depth of the charring indicated that this was clearly not an example of the archaeological myth of hardening the peg tip by carbonisation (Plate VIII).

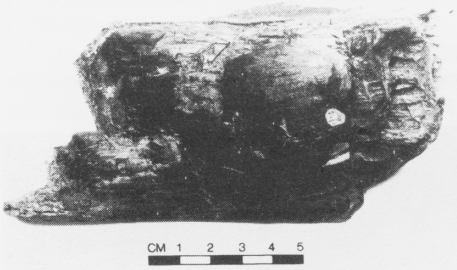

Plate VII. Long Knowe, 1976
Radially split birch beam.

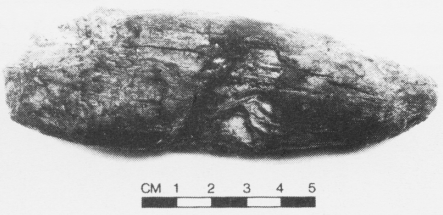

Plate VIII. Long Knowe, 1976
Willow peg.

The presence of the carbonised wood was fortunate since all the wood had been treated with a fungicide and hence C14 dating of the wood was somewhat unreliable. The unreactive charcoal, on the other hand, would not have retained any of the fungicide by chemical bonding and mechanical removal of the contaminant was possible by simply flushing it out with lots of distilled water. The difference in the resulting dates is discussed elsewhere.

The relationship between the dated wood and the construction and primary occupation of the site is not a direct one. It is reasonable to suppose that the ditch and its bank were of a defensive nature. Conventional wisdom suggests that the area immediately adjacent to the site would, therefore, have been cleared of its tree cover. It further suggests that the ditch would have been kept clean during the occupation phase. Thus the peat formation, which overlies the primary ditch silting, would date to a period after — possibly long after — the primary period of usage.

The carbonised wood had 28 annual rings on its surface and was somewhat older, possibly 35 to 40 years old. It bears several chop marks on one end and, being radially split, probably represents a piece of structural wood. Thus its C14 age probably predates the date of its deposition by the length of its usage in a structure. These varying factors make it quite difficult to say with any confidence how these dates relate to the primary occupation of the site.

In conclusion then it can be said that the ditch at Long Knowe had trees and bushes of willow, alder, birch and hazel growing in and about it. Numerous twigs and branches had fallen into the waterlogged bottom of the ditch where they were preserved. Also in the bottom of the ditch was a range of wood with no natural outer surface surviving, the *xylem*. This was of the same species as the twigs and branches but in

radically different proportions. It may therefore represent the waste products of local wood working. The presence of two carbonised pieces, one of a small beam and one of a peg or stake, would tend to support this interpretation.

I would like to thank Mr M. Brooks of the Central Excavation Unit for the photographs reproduced here and for his preparation of record photographs of some of the material. Mr R. McCullagh prepared some microscopic slides. I am deeply grateful to Drs Albertus Voorips of the Institute of Pre and Proto History, Amsterdam, for examining some of the slides for me and commenting on the date of the felling.

Table 1

Class	% of all wood	% of all wood species			
		Salix	*Betula*	*Alnus*	*Corylus*
Type 1	17	17			
Type 2	38		23.6	11.8	3.0
Type 3	5	5			
Type 4	20	8.6	2.8		8.6
Totals					
1 to 4	80	30.60	26.40	11.8	11.6
Xylem	20	3.4	9.0	5.9	1.7

Table 2

Table 2
Proportionality of occurrence of species

	Salix	*Betula*	*Alnus*	*Corylus*
Xylem	17.0	45.0	30.0	9.0
Types 1 to 4	38.0	33.0	15.0	15.0

SECTION 3

REPORT ON RADIOCARBON DATING ASSAYS

by Dr. M. Stenhouse
University of Glasgow
(radiocarbon dating)

and

J. Barber
Central Excavation Unit
(wood identification)

Two radiocarbon dates were obtained from the site:

1) GU-1130 Wood (identified by JB as *Alnus sp.*). This material was located immediately above the primary silt of the waterlogged ditch on the northern side of the site.

2535 ± 135 bp
585 ± 135 bc
$^{13}C = (-27.8\%)$

2) GU-1131 Charcoal (identified by JB as *Betula sp.* — probably *pubescens*). This material was located in the waterlogged deposit immediately above the primary silt of the ditch on the northern side of the site.

2240 ± 60 bp
290 ± 60 bc
$^{13}C = (-25.6\%)$

Comment:

The situation regarding samples GU-1130 and GU-1131 highlights a common problem in interpretation — whether or not to average two C-14 dates obtained from independent samples, each of which is expected, on archaeological grounds, to date the same event.

In view of the difference between the dates, a larger sample population is obviously desirable, *i.e.* more samples from the same stratigraphical context should be dated. Given that such an exercise is not possible, the C-14 date obtained from sample GU-1131 — 2240 ± 60 years b.p. — should be regarded in this case as the better time estimate of the archaeological event, for the following reasons:

(1) a C-14 date, contamination apart, reflects the age of a sample *since death.* One must always exercise caution, in deciding whether or not to average dates, particularly when, as in this case, the individual samples are not portions of a single parent sample. The additional variable of separate samples may produce real differences in C-14 age (700 years in an extreme case!).

(2) in any case, statistical treatment of the dates yields a probability of less than 0.03 (*i.e.* < 3 chances in 100) that the two samples are contemporaneous.

(3) adequate sample size is essential for good reproducibility of C-14 dates. To some extent the effect of sample size is reflected in the quoted standard error, since the major component of this term is attributable to normal counting statistics. Additionally, for small samples such as GU-1130, the possibility exists for a significant but non-quantifiable error due to non-random variations in background count rates between counting vials and to the effects of trace amounts of contaminants. On the other hand, GU-1131 yielded sufficient carbon after pretreatment to render such effects negligible.

SECTION 4

ANIMAL BONE REPORT

by L. P. D. Barnetson
Dept. of Archaeology
University of Edinburgh

The bones, in all cases except the teeth, had been reduced to a mere "skin" which was extremely fragile, and had been preserved in the ground by virtue of its waterlogged condition. All the fragments were kept in water and a fungicide solution from excavation.

In some cases it was difficult to identify the material as bone but, fortunately, the majority of fragments were identifiable to both bone and species as they had kept their "shape" around a mud core or filling.

Identification

Cattle:	Fragment of axis vertebra
	Fragment of cervical vertebra
	Humerus diaphysis (right)
	Metatarsal diaphysis fragment
Cattle/Horse(?):	Humerus diaphysis fragment (right)
	Tibia diaphysis fragment
Horse:	8 loose teeth, molars and premolars, (mature animal)
Sheep:	Humerus distal end (left), distal epiphysis fused
	Fragment of proximal epiphysis of humerus
	Radius diaphysis
	Radial carpal (right)
	2/3 carpal (right)
	Intermediate carpal (right)
	Fragment of innominate (ilium) with acetabulum fused (left)
	Femur proximal end (left), proximal epiphysis unfused
	Femur diatal end (left), distal epiphysis unfused
	Cuboid (left)
	Calcaneum proximal end (right), proximal epiphysis unfused
	Mandible fragment with non-erupted incisor visible in the bone
	Mandible fragment with teeth *in situ*, (left), p2p3p4M1M2
	8 fragments of teeth
	1 incisor
	1 lower deciduous premolar (p4)

2 upper molars
1 upper deciduous premolar
3 rib fragments
Various unidentified slivers of limb bones

Comments

There are, unfortunately, too few bones here to require comment although it would seem that with all the principal elements of the sheep skeleton present, these bones probably belong to a single animal aged between 18-40 months.

The cattle and horse bones belong to mature individuals.

SECTION 5

POLLEN REPORT

by M. A. R. Munro
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In an attempt to see if pollen analysis of the sediments from Long Knowe would be possible, a series of samples at 0.2 m intervals was taken from a column representing the entire thickness of the ditch silt, and qualitative estimates were made of the arboreal concentration. This was thought to be consistently too low to produce meaningful results in the time available, a conclusion checked by an attempt to produce quantitative results from a 0.3 m segment at the top of the column, samples being taken at 50 mm intervals, subjected to a standard KOH treatment followed by sieving and an HF treatment, such as that described by Faegri and Iversen (Faegri, K. & Iversen, J., 1964, 69).

A similar attempt to analyse two columns of peat from the interior of the site also proved unsuccessful, the qualitative samples being taken at 0.2 m intervals in both columns, the quantitative ones from a series of points at 50 mm intervals, spanning the central part of one of the columns, only KOH treatment being necessary in this case.

In both cases a period of several days was necessary to observe even 50 tree pollen grains, the samples being dominated by *Gramineae* and *Ericaceae*, together representing anything from 390% to 2400% of the arboreal pollen. All that may be said is that there was a general dominance of *Betula* and *Alnus* which together accounted for 75% of the arboreal pollen in nine of the ten samples which produced sufficient pollen for an estimate to be made.

Reference:

Faegri, K. and Iversen, J. (1964) *Textbook of Pollen Analysis*.

SECTION 6

Discussion

The site at Longknowe would appear to be a farmstead enclosure of quasi-defensive function in that the ditch on the west side with its cognate counterscarp bank and palisade would appear to present an obstacle on the line of easiest approach out of keeping with the simple needs of stock management and protection against natural predators. The possibility of an appended secondary enclosure for the retention of stock, bringing within the '*enceinte*' the site's water supply must be borne in mind here. Within the enclosure, traces of ten circular timber huts with the upright members of the outer wall set in ring grooves were recovered. The evidence for the existence of some of these huts was so fragmentary as to indicate that this figure must be regarded as a minimum number. Despite this *caveat* however the number of hut foundations traced on the site is such that the demands of space available would have allowed few others to have existed contemporaneously and certainly all level areas of the site have been used within the hut distribution traced.

As evidence from the site of a cultural nature is absent it is impossible to determine whether all or, indeed any of these structures were used for human occupation or whether differential function is involved. No hearths or associated structural features were recognised in any of the houses and very few traces of internal furnishings of any kind including roof supports were recovered. All of the huts however revealed at least traces (even in Hut 4) of original paved areas inside although these are seldom complete or well-defined.

Huts 1, 2 and 7 appear to be paved in their entrance areas and in each case these are located away from the centre of the site. Hut 3 and 5 may exhibit the same trait. Hut 9 on the other hand exhibits precisely the opposite tendency with an apparent concentration of paving facing on to the centre of the site and on to the yard before the SW gateway. The very flimsy evidence that exists for the size of this hut might indicate that its floor area is appreciably larger than any other recognised within the enclosure. Little can be based upon so flimsy a foundation of evidence but there may be some indication of differential status whether social or functional. Set to the outer side of Hut 9 are Huts 10 and 8 which are (again in the case of Hut 8 on most unsatisfactorily flimsy evidence) clearly smaller in floor area than any others. It is conceivable that this distinction, again possibly either social or functional in origin, may be related to the distinction suggested for Hut 9. The writer is not prepared to venture any further subdivision of the structures within the enclosure. The better state of preservation of the sructures on the east side of the enclosure (Huts 1 and 2) may indicate that these were in existence at a later date than others on the site and did not therefore suffer the same degree of dilapidation by stone robbing or attrition during a period of subsequent human occupation. If this suggestion, and it is no more, is a valid one, then we may see evidence for a terminal contraction of the settlement prior to its desertion. The occurrence of the peat growth on the site directly on what is apparently *in situ* dung deposit may indicate that such growth commenced relatively shortly after the desertion of the site for the dung deposit to have persisted. Certainly peat growth occurs directly on top of secondary silts within the fill of the ditch on the western side of the site arguing again for a commencement of peat growth shortly after the site's desertion. The climatic change which may have culminated in such peat growth may well have meant that the occupation of this marginal site was no longer feasible.

While the absence of pottery and metalwork in the extremely hostile conditions of the site can be the cause of little surprise, the total absence of quernstones of any type despite very careful inspection during the process of excavations must, in the context of frequent finds of this kind from other similar sites, have some bearing upon the function and economy of the site. It is indeed unlikely that the successful cultivation of even the hardiest cereals could have taken place in Eskdale at a height over 1100' and certainly there is no evidence for their processing within this enclosure. It would seem from the limited bone evidence available that cattle, sheep and horses were available for use on the site, that slaughter was taking place and that whole carcasses were present on the site. It would seem *a priori* unlikely that any community would be able or willing to survive on a diet comprising only flesh and milk (and indeed the occurrence of the tiny terraces to the south of the site may possibly indicate — if these do represent cultivation and are contemporary with the

site's use — the attempt to eke out such a diet with garden type cultivation). Bearing in mind, however, the apparently flimsy nature of the houses and the extremely exposed nature of the site, the writer would anyway feel that all year round occupation was very unlikely. It would perhaps be reasonable to suggest in the circumstances that the site was occupied seasonally — perhaps between the time when lowland arable had been sown and before the harvest so that cattle and sheep could be supervised in their summer use of upland pasture. The possible cutting of twigs for fodder suggested above may militate against this suggestion of solely summer pasturage, and indeed the seasonal cutting pattern noted in the small sample of wood available for study from the ditch deposits revealed a fairly general cutting pattern throughout the whole year (see Section 2).

The lack of Roman and Romano-British material from the site is also of interest especially when placed beside the somewhat disparate radiocarbon determinations from the primary stages of the ditch filling.

The two radiocarbon dates from Long Knowe (GU-1130 630 ± 135 bc and GU-1131 300 ± 60 bc), derived from young wood and charcoal located on top of primary silts within the ditch (see Section 3) would, with a due caution required by their disparity, seem to indicate occupation of the site during the second half of the first millennium bc. In so doing they serve a useful function in pushing back in time the existence of such structures well before the Roman period into later prehistory — forging a link in the chronological chain of settlement development that can now be traced in the Scottish and English Borders.

With this and the possibilities of seasonal use of the site in mind the pattern of enclosure occupation in Eskdale as perceived by Jobey may be seen to be complex and ranging over, possibly a very broad chronology indeed. Excavations conducted since 1976 by George Jobey at Greenknowe, Peebleshire (Jobey 1978) have served to illustrate just how broad this chronology might be (where an unenclosed platform settlement with superficially similar structures has produced radiocarbon dates indicating a date within the latter centuries of the 2nd millennium bc.).

The excavations of Long Knowe, perhaps in keeping with long-established tradition, has raised many more questions than it has answered. The longevity of a tradition of architecture has been demonstrated. The susceptibility of settlement patterns to changed environment in the later first millennium b.c. hinted at and complex inter-relationships between sites of an economic and social kind possibly involving annual or seasonal movements of population, must remain as a *caveat* in our approaches to settlement distribution studies in the future in this area.

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THE FRONTIER POLICIES OF ANTONINUS PIUS IN SCOTLAND AND GERMANY

by D. Williams, B.A. (Cantab.)

The abandonment of Hadrian's Wall at the end of his reign is perhaps the most puzzling event of Britain's entire relationship with Rome. It has been explained in two ways. The first argues a British case and suggests a military motive: that opposition was developing in Southern Scotland, beyond the frontier garrison's effective reach. The second, and more recent,[1] argues from the standpoint of Rome and proposes a political motive: that Antoninus Pius renewed the offensive as a sop to the supposed Trajanic or War Party and that, like Claudius, lack of personal military prowess required him to seek the prestige of a victory.[2]

To justify abandonment of the most highly developed of all Roman frontiers on military grounds, the danger must have been substantial; and to have been outside the control of troops based on the Tyne-Solway, it must presumably have centred in Teviotdale or beyond. The weakness of this Northern Threat thesis is lack of evidence for campaigning, especially in the hills of Selkirk and Peebles between the two lines of the advance, into which resistance would have been sqeezed. Withdrawal beyond Forth-Clyde (possibly implied by Capitolinus[3]) is an alternative, but the defence of their heartland by the powerful forces envisaged in this theory would surely have preceded retreat.

However, instead of a new pattern of marching camps, siege works etc. we find a revival of the Agricolan roads and forts whose purpose — though much has been written about isolating the upland areas and dividing the Lowlands into tribal compartments[4] — was to control the most effective routes for a northward thrust. This Urbicus now repeated; and the only evidence that the advance was contested is a victory celebrated in coin issues and the Emperor's receipt of a *salutatio imperatoria*.

Was this a real, or only a numismatic victory? What role did pretext play in the events surrounding it? What part had propaganda in its representation to the Roman people? A clue to these questions may be provided by the As of 143, described by Askew[5] as "Victory advancing, holding a shield inscribed BRI TAN". Perhaps the victory lay in the advance, the inscribed 'shield' representing an actual piece of territory, now returned to Roman ownership; and might not this, the first imperial acquisition for 25 years, have itself been sufficient cause for salutation?

Why should Antoninus have sought a pretext where others had needed none? If, however, we postulate a Trajanic or expansionist voice in Roman politics, we must also accept a Hadrianic or consolidationist influence; for frontier policy had alternated between these since the Varian Disaster. So the new Emperor, wavering between the extremes of his adoptive father and adoptive grandfather, decided on a middle course: to advance, but with a show of reluctance. Pausanias tells us that he never willingly made war;[6] and in the light of his reign as a whole this is convincing. But at the beginning, embarking on a military adventure which he believed would

1. A. R. Birley, *Roman Frontiers and Roman Frontier Policy*, Durham and Northumb. Trans. (1970), III, 17.
2. Breeze and Dobson, *A View of Roman Scotland in 1975*, Glas. Arch. Journ. IV, 134.
3. S.H.A., *Antoninus Pius*, V, 4.
4. eg. J. Clarke, *Roman and Native in North Britain*, (1958), 50.
5. *Coinage of Roman Britain*, (1951), 14.
6. *Description of Greece*, 8, 43, 3.

not characterise and hoped would not jeopardise his later work, a pretext was required. Apparently there was one to hand: the Brigantes attacked *Genounia*.

> ". . . also, in Britain, he annexed much of the territory of the Brigantes because they had begun an armed attack upon the *Genounian* district whose people are subject to the Romans."

This — it has often been said — seems to present a twofold difficulty. How could Brigantian territory be annexed, since it was already within the province? And where is *Genounia*?

In seeking this location I assumed that if *Genounia* survives in a placename then — due to the frequency of G's disappearance before N — I might be looking for a *Nounia*. This search proved fruitless, though perhaps it pointed in a promising direction. The *Agricola* supplied an accidental hint: "*Tertius expeditionum annus novas gentes aperuit* [7] . . ." Of course, as the Romans moved north, all were successively 'new tribes'. But in at least one case the description may have stuck: the NOVAs geNTES of S.W. Scotland.

Our source for this tribe's name is Ptolemy, who gives the Rhinns of Galloway as *Novantarum Chersonesus* and the Nith as the *Novius*[8]. Macdonald proposed *novans* in the sense of 'the fresh, sprightly one',[9] interpreting the name in terms of self-esteem, for which there are precedents.[10] Be that as it may I offer, as an alternative derivation of *Genounia*, GEns NOVaNtIA, or similar expression. This supposes tautology of a type common in name formation.[11]

In considering alleged aggression by the Brigantes against Novantia, we must turn to the one place where the two tribes were in contact: the area I will venture to call the Brigantian Enclave of S.E. Dumfriesshire, separated from the main tribal region by Hadrian's Wall and tightly squeezed between the Solway and the thickly clustered hill forts and other settlements (compatible in type with those of peoples to their N. and N.E.)[12] to the immediate N.. It is entirely possible that Brigantes had infiltrated the Solway's N. shore, only to be halted at the Lowther Hills. Though evidence for this sub-region still rests upon the single *Dea Brigantia* dedication, Birrens' siting, so far W. and 10 miles further out than a simple vanguard function might warrant, could itself be taken to confirm the existence of a tribal anomaly hereabouts.

Infiltration southwards was of course the Romans' main concern and in this region Eden-Solway was their obvious defensive line. Thus we have two natural barriers — of river, marsh and firth to the S. and of hills to the N. — with the small area between feasibly, as in later ages, one of racial overlap and political ambiguity. The Outpost Forts may be seen as the price Rome paid for her cautious choice of route at the W. end of Hadrian's Wall.

A wider view reveals another potentially troubled area less than 20 miles N.W.: mid Nithsdale and the parallel stretch of the Annan, where the density of native and the presence of Roman fortifications suggest the junction of Novantian and

7. ***Agricola***, 22.
8. ***Geographica***, II, 3, 1.
9. ***Real-Encyclopädie der Classischen Altertums Wissenschaft***, XVII, (1936), 1135
10. eg. *Brigans*:Celtic *brig* = height; hence 'lordly' or exalted one'. K. Jackson, *Language and History in Early Britain*, (1953), 701-2; and Staehelin, *Die Schweiz in Römischer in Zeit, 3*, (1948), 181.
11. eg. 'The Clan Macdonald', instead of 'The Macdonalds' or 'The Clan Donald'. My suggested origin of *Genounia, gens + (Novae + gentes)*, may be compared with *Genauni (Noricum)*, perhaps derived from *Gens Anauni* or *Gens Aeni* (tribe of the Inn). It is interesting to note a comparable tautology in Horace (*Odes*, IV, 14, 10): *Genaunus implacidum gens*.
12. G. Jobey, *Early Settlements in Eastern Dumfriesshire*, Trans. D. & G. Soc., XLVIII (1971), 104.

Selgovian lands. Dumfriesshire, at the convergence of three tribal territories, thus seems a perennial problem area, which has led to a growing belief among scholars[14] that the *Genounian* incident may be located there. Due to the hegemonic influence of the *pax Romana,* the population of southern Scotland is believed to have been growing steadily between 120 and 140.[15] But only in the limited space of the Brigantian Enclave might this have become a problem. Here geography and politics suggest that any attempted breakout would probably have been westwards. This would bring the Enclave Brigantians into conflict with Novantia and answer the question Pausanias seemed to raise of the Romans annexing territory already belonging to them.[16] However such an incident would hardly have affected Rome's vital interests. The absence of a military occupation and the scarcity of find-objects suggests that they were little concerned with the internal affairs of Galloway; and an inter-tribal conflict which led into that *cul-de-sac* would be unlikely to interest them either. But if an advance into Scotland were imminent, any threat to the stability of Annandale would naturally be taken more seriously.

The question now arises: if the Brigantes attacked Novantia in the late 130s, did they do it alone? Circumstantial evidence suggests not. First, it is unlikely that the Enclave Brigantians could make progress against a large opponent unaided. Secondly, the subsequent emphasis of the Antonine occupation upon their territory could imply Selgovian involvement. Thirdly, there are the inferences to be drawn from the Nithsdale loop road. Why did Urbicus, with pressing objectives to the North, bother to fortify two parallel valleys and duplicate 35 miles of road? Annandale is the obvious way, reaffirmed through successive ages. But the Nithsdale route swings westwards, leaving only Durisdeer and Dalveen as exits towards the East. Both are steep and narrow, Dalveen boggy besides. It is difficult to enter the Durisdeer Pass without foreboding, especially if one reflects upon these hills before the age of tree felling and sheep grazing, as the name Ae Forest recalls. What brought Urbicus' surveyors into so dangerous a corner? Presumably the need to protect the Annan route, itself blind to both sides throughout the 15 miles south of Beattock Summit. The Nithsdale position at least secured this against ambush from the West, seeming to echo apprehensions about Novantia which had prompted the creation of similar defences on the Cumbrian coast.[17] On the other hand no comparable effort was made to protect the Annan position from the East, implying that Selgovia was now considered neutralised. Perhaps this danger has in any case been overrated by Northern Threat theorists, recent opinion tending to regard Selgovian society as limited to petty units only.[18]

Unlike Agricola, Urbicus did not intend to devote a campaign to Galloway. However, South Scotland could not be held indefinitely with a third of its area shut out. The advance created a shorter exterior frontier but opened a sizeable interior flank, a paradox which could add weight to the suspicion that the Scottish acquisition was not envisaged as permanent.

Nithsdale and Annandale, then, may indeed have been the respective limits of the Novantian and Selgovian peoples; and the Roman presence in both valleys could

13. *Royal Commission on the Ancient and Historical Monuments of Scotland: Lanarkshire,* (1978), 37.
14. See below, 23-25.
15. G. Jobey, *Some notes on population problems in the area between the two Roman Walls, Archaeologia Aeliana,* (1974), 26.
16. Though it does not explain Pausanias' mention of "much" Brigantian territory.
17. G. S. Maxwell, *A Linear Defence-System in South Western Scotland, Studien zu den Militargrenzen Roms,* (1977), 29.
18. *Royal Commission on the Ancient and Historical Monuments of Scotland, Peebleshire,* (1967), Vol. 1, 32.

suggest an intention to separate the tribes by occupying their respective borderlands in this strategic area, creating a 15 mile wide neutral zone between.[19]

But had there been a Selgovian involvement, would not Pausanias have noted it? Doubtless the *Brigantes* were familiar to his readership and their name had news value. But also, since *Description of Greece* is unrelated to Britain and her mention is a mere aside, I suggest that its author was not especially well-informed about Britain and simply repeated common knowledge. His account may thus echo an official version of some 35 years earlier. Two phrases in particular seem to reflect the ambiguity appropriate to imperial propaganda in 140: "never willingly made war", implying reluctance, aimed at one body of Roman opinion; and "the Brigantes" (naming Britain's biggest tribe to imply a major operation) designed to appease the other.

Recalling Pausanias' assertion that *Genounia* was "subject to the Romans", we may assume all tribes close to Hadrian's Wall to have been exposed to the usual combination of menace and bribery, including the payment of subsidies,[20] the taking of hostages[21] and the making of treaties. We know such inducements did not always work and that divisive diplomacy and the fostering of tribal feuds were other cards in the Roman hand. But whatever the means of safeguarding it, the end was always the frontier's security. Outsiders' quarrels which did not threaten this would count for little. Thus the concern, implied by Pausanias, at an attack on a district under imperial protection, does not match well with Rome's general indifference to the rights or wrongs of barbarian causes;[22] and savours, again, of pretext.

I will next attempt to surmise what Pausanias might have said, had he been closer to events:

> Pius never willingly made war, except in the case of Mauretania etc.; and in Britain where he annexed the balance of Brigantian territory, as well as that of their Selgovian allies, because they had attacked the district of the Novantian Tribe, whose integrity was guaranteed by Rome under the system of treaties normally prevailing with peoples adjacent to our frontiers.

In proposing Galloway as *Genounia* I am following S. N. Miller,[23] F. Newall[24] and, G. Maxwell.[25] If this identification is correct the Northern Threat theory, which assumes danger beyond the Wall's reach, is again questioned, for the supposed problem areas are only 30-40 miles from Stanwix and on Birrens' doorstep. The War Party appeasement theory is correspondingly favoured; and the *Genounian* affair seen merely as an excuse for aggression.

I have discussed two political positions, with the new Emperor treading cautiously between. But there is a third to consider, that of Pius himself. We know he was a man of benign temperament, chosen to continue a policy of peaceful consolidation. We know also — from the record of his principate as a whole — that this was his genuine aim; but in these early years expediency influenced him to adopt an opposite stance. This suggests a moral dilemna; from which he may have found

19. S. N. Miller, *The Roman Occupation of South Western Scotland*, (1952), 199.
20. *Germania*, 42.
21. *Agricola*, 21.
22. *Germania*, 33. Also A. Alföldi, *The Moral Barrier on Rhine and Danube*, (1949), 1st *Limes Congress*, 1.
23. *op. cit.*, 222.
24. A. S. Robertson, *Birrens*, (1975), 284.
25. *op. cit.*, 29-30.

relief by choosing to regard the advance into Scotland in terms of frontier rectification. In other words, through succumbing to an emotional pressure for conquest, a man of his character[26] and aims would more readily justify this course if it seemed to involve sound practical advantages. And indeed it could be so rationalised by advisors who themselves favoured the offensive; especially to an Emperor little travelled, militarily inexperienced and who in the last resort was willing, for political reasons, to be convinced.

The argument could have run thus: an advance to a proven line, over existing roads and based on an established fort system, would regain territory equivalent to three quarters the size of Sicily, while reducing the length of the British frontier by half. This would mean a manpower saving, an easy victory, a boost to morale and the applause of all who opposed the strategies of the previous reign.

Light may be shed on the motive of frontier rationalisation by examining it in connection with events of a decade later in Germany. I will return to this in a moment. Meanwhile, in Britain, the disadvantages of the advance must have been apparent to those with local experience; and since the army continued to perfect the earlier Wall to the last, it is improbable that the British command knew of its impending abandonment or had suggested it. The advance was nevertheless well planned and possibly unopposed. The *Exercitus Britannicus*, moving in full strength from what all had believed the final stop-line, must have been a shock greater even than Agricola's offensive of 80. The Brigantian Enclave was swallowed, Nithsdale and Annandale cleared, Novantia bypassed and Selgovia encircled, before serious opposition could harden. The Caledonian tribes may have intervened[27] in the final stages, but if so their effort must surely have been ineffectual against a Roman momentum by then unstoppable. Such seems a feasible account of events in 140-141.

This, however, was the easy part. The test would be to hold these gains in the face of the scattered but powerful Lowland tribes on whom the Roman grip now tightened; and equally to hold the Pennine and Welsh peoples on whom it now slackened. And of course there was the isthmus itself to be fortified; the new Wall to be hurried to completion beneath the bigger wall of the Highland massif, in the knowledge that the northern tribes, who had brought more than 30,000 men to Mons Graupius,[28] must by now have recovered from that day and doubtless learned its lessons. Urbicus was nervous, manning his Wall more densely perhaps than at any time or place in Roman frontier history. This, plus the reduction in front line cavalry, suggests a more defensive posture than on the southern Wall and may already indicate a decline in the army's mettle after a generation in the sedentary role.

It seems there were two plans for the Antonine Wall, as there had been for Hadrian's, the first Antonine approximating to the second Hadrianic.[29] The latter may have aimed to make more of Roman strength by displaying it, since the Stanegate garrison's concealment reduced its deterrent effect. The north-projecting forts might thus have been a device to heighten the Wall's menace. In the case of the Antonine Wall, visible from so many northern vantage points and commonly sited on the slope towards them, Urbicus doubtless regarded a show of forts — even beyond his ability to keep them filled — as a preliminary to frontier diplomacy. In this his

26. Capitolinus, *op. cit.*, II, 1: "In nature . . . conspicuously thrifty, a conscientious landholder, gentle, generous, mindful of others' rights" (Loeb).
27. *ibid.*, V, 4.
28. *Agricola*, 29.
29. J. P. Gillam, *Possible Changes of Plan in the Course of the Construction of the Antonine Wall*, Scot. Arch. Forum, (1975), VII, 51-6.

thinking was in line with general policy, that the less sophisticated the opponent the more overt the display of power.[30]

So the new Wall was manned at almost double the density of the old, the Lowlands occupied in excessive strength,[31] while to the rear, in areas still unreceptive to Rome, garrisons were thinly spread. Urbicus, overstretched and his weight too heavily on the forward foot, was in danger of being toppled from behind.

We are now faced with the second most puzzling event of Roman Britain: the abandonment of the Antonine Wall after only 15 or 16 years,[32] testified by the destruction of its forts,[33] doubtless by their own garrisons before withdrawal. There is also the inscription recording reinforcement at the Tyne; and the coin issues of 154-5, with *Britannia* dejected. Such are the few firm facts of a period in which the historian chases shadows.

Taking troop densities as a guide to the first Antonine Occupation, the further north one looks the more secure the situation must have been; and it is likely that for a decade and a half the show of strength in southern Scotland succeeded. For example, might the new Wall's bigger, erratically proportioned ditch and smaller rampart suggest a higher ratio of unskilled, tribal labour; perhaps implying a cooperative spirit among the peoples to its south? Then there is the tilestamp, *N(umerus) BRIT(tonum) CAL(edoniorum)* from Öhringen,[34], a pair of forts first occupied some 15 years after the advance into Scotland. This unit is not attested on the Odenwald-Neckar line[35] and is unlikely to have been mustered from as far south as Hadrian's Wall. It could therefore point to recruitment north of Forth-Clyde in the late 140s or early 150s, in turn implying acceptance of the new frontier. Finally, the slighting of the Hadrianic Vallum etc. meant a sense of security in that area at least, though reinforcement at the Tyne suggests it would be misplaced.

Urbicus' vulnerability was now strategic and can be understood in relation to the legionary bases. Flavian and subsequent experience implies a formula which only total conquest and prolonged Romanisation of the upland zones could have mitigated: three legions to the Tyne, four to the Forth and perhaps five to occupy the entire island. But though a fourth legion would not be spared, the new Emperor was inexperienced or ill-advised enough to deny experience, gambling no doubt on a release of men from the shortened frontier. But as we have seen Urbicus, instead of solving his manpower problem by the advance, brought himself closer to yet more dangerous opponents to the north, while shouldering the additional burden of 70,000 square miles of moor, moss and thicket to the south.

The legions had been placed to hold Britain in a balance which was now upset, with York's distance to the frontier increased from 82 to 175 miles, Chester's from 120 to 205 miles: eleven and fourteen days' march[36] from the new Wall, of whose

30. E. N. Luttwak, *The Grand Strategy of the Roman Empire*, (1976), 3: "The Romans clearly realized that the dominant dimension of power was not physical but psychological, the product of others' perception of Roman strength rather than the use of this strength."
31. Breeze and Dobson, *op. cit.*, 137: "He was indulging in 'saturation control' almost as if he intended to make sure that nothing untoward happened to sour the victory accorded to Antoninus Pius."
32. Breeze, *Britannia*, V, 153, (1974).
33. J. P. Gillam and J. C. Mann, *The Northern British Frontier from Antoninus Pius to Caracalla, Archaeologia Aeliana* (1970), 13.
34. Filtzinger, etc., *Die Römer in Baden-Würtemberg*, (1976), illus. facing p. 33, text p. 430.
35. Fabricius etc. *Der Obergermanisch-Raetische Limes des Römerreichs*, A. *Strecke* 7-9, (1933) 143f, resists earlier attempts to identify this unit with other *Brittones* from the Inner *Limes*. ibid., 53, suggests that the locations of the stamped bricks (eg. in hypocaust piers) proves their presence from the earliest construction period of the Öhringen forts.
36. At the *magnum iter* of 20,000 paces or 18½ miles a day, with one day's rest in four.

security they were still the final guarantors.[37] On the other hand to advance the fortresses, bringing them into a more realistic relationship with the front line, would knock the defensive pins from Wales and the North, negating all previous military strategies, whose aim had been to protect lands south and east of the Fosse Way.[38] The bases were not moved, but due to the events of 140, garrisons were thinned, exposing the civil zone to the very dangers[39] which it was the military zone's sole function to eliminate. Without 30 or 35% reinforcement, the extended Province was beyond the Army's capacity to police; and it was a question of time before its weakness was revealed.

As implied by the coin issues, Antonine Britain had begun to crack by the mid 150s, though where is unknown. The disembarkation at the Tyne points to the northern, the strategic position to the southern Pennines. The Brigantian Revolt remains a hypothesis, but the turnabout can only be explained by trouble to the rear; and in the absence of evidence, part or parts of Brigantia remain its likeliest location. The return to the Forth-Clyde, presumably when order had been restored, was a repeat of the earlier miscalculation, this time having more the character of a face-saving operation. The Army resumed its uncertain role in Scotland and though garrisons were now more widely spread, the legionary bases which, if moved, would be too far north to guarantee the old Province, remained too far south to guarantee the new Wall.

Let us return now to events in Europe during the first decade of Antoninus Pius' reign, where there is evidence for the strengthening of the entire Upper German-Raetian-Norican *limes* as part of a unified effort.[40] Despite this, in about 150, the frontier of western Raetia known as the Alb Line (forts with few watchtowers and no linear barrier) was abandoned and a new version built some fifteen miles forward in the Rems Valley, with palisade, stone towers and forts. This enclosed the fertile northern foothills of the Swabian Alb and brought the frontier against dense, sparsely inhabitated forest.[41]

Soon after, perhaps in 155,[42] the Oldenwald-Neckar frontier was moved 12-18 miles forward to a line between the Main and the Raetian boundary at Lorch; including the famous Waldürn to Welzheim stretch where, in 50 miles, the frontier diverges one yard from the straight. As in Britain and Raetia, this followed a period of improvement on the old line, presumably centrally planned.[43] As in Raetia, an 'open' frontier[44] was now replaced by a closed one. Again, fertile areas[45] were included, forest excluded; a densely wooded belt being turned to advantage as a natural barrier or inhospitable buffer zone, added as it were to the front of the new line.[46] Dr. Baatz has suggested that these frontiers were advanced because the alliances with the free German tribes were under strain, perhaps foreshadowing the Marcommanic War of twenty years later.[47] They may also have been influenced by the British advance of 10-15 years earlier.

37. Now twice the mileage of any other legion from the overland frontier which it was supporting and perhaps four times the average mileage. Chester's distance from Hadrian's Wall had already made this the Empire's furthest back-stop.
38. B. Cunliffe, *Iron Age Communities in Britain*, (1974), 153.
39. S. Piggott, *Roman and Native in Northern Britain*, (1958), 18-19.
40. H-J Kellner, *Bedeutung des Ausbaus des Obergermanisch-Raetischen Limes unter Antoninus Pius*, 7th *Limes* Congress, (1967), 105.
41. D. Baatz, *Der Römische Limes*, (1975), 210.
42. ibid., 179.
43. H. Schönberger, *The Roman Frontier in Germany: an archaeoligical survey*, J.R.S., LIX, 167, (1969).
44. At least in the case of the Neckar, a fordable river guarded only by forts.
45. The Tacitean *Decumates Agri (Germania, 29)*, containing an imperial domain.
46. Schönberger, *op. cit.*, 169.
47. Baatz, *op. cit.*, 181.

The Scottish and German events display similarities. Both were exceptions to an otherwise static frontier policy. Both carried the respective *limites* to their high-water marks. Both were unexpected by the army. Both represented a 50% frontier shortening.[48] Both new lines would be more heavily manned than the old.[49]

However, there were also differences. The German advances seem to have attracted no mention, suggesting that they were carried out quietly. Also they were in every sense better planned. For example, all units appear to have been moved from inner to outer *limes* retaining their original order on the ground.[50] Though in Britain there is a faint echo of matching location,[51] one is more conscious of dislocation in the form of detachment, fort-sharing and other devices to spread a diluted force over maximum area. In Germany the inclusion of prime land, already part Romanised,[52] was a continuation of Hadrian's principle of frontier support through colonization and veteran settlement. But in Britain the advance had allowed no time for comparable agricultural development, which climatic conditions in any case favoured less. In Germany the new frontier was brought up to the edge of inhospitable forest, devoid of people. In Scotland it came closer to still more powerful enemies[53] and to terrain which favoured them most. Though in absolute terms Britain had a more ambitious tradition of frontier building, Germany's new *limes* was in all ways an improvement, while the Antonine Wall was superior to Hadrian's only in terms of shortness. By straightening out the Neckar-Danube re-entrant, a strategic link was shortened. In Britain all lifelines were lengthened by at least 100 miles.

We have seen how, put tendentiously, the results in Scotland can be made to seem impressive. Similarly the German achievement might at first appear paltry: a shallow gain averaging only 15 miles in depth; a territorial increase perhaps a quarter that of southern Scotland; and an advance over so wide a front that the construction of 140 miles of new works would be necessary,[54] after considerable effort wasted in improving the old. But in Germany the new land was an asset, in Britain an embarrassment. In Germany, farms would follow, some close behind the frontier;[55] while the nearest comparable villa to the Antonine Wall lay 130 miles to the south. On the Neckar, abandoned forts would be converted to civilian settlements.[56] There was no need to build new forts other than on the line itself, or to stretch existing garrisons over the newly acquired territory. The result, as in Scotland, was a line manned at far greater strength; but unlike Britain, it was achieved without internal strain.

Though precise dating is not yet possible, it seems the German advances were planned and executed while southern Scotland still held. There are inferences to be drawn from this. First that, viewed from Palatine Hill, the Forth-Clyde plan seemed to be working and apparent success in Britain encouraged Pius to follow a similar

48. Not meaning that the entire German *limes* was reduced by 50%, but that the replaced portion was shortened by half.
49. Baatz, *op. cit.*, 180: tower intervals in the Odenwald averaged 700, on the new line 400 yards.
50. W. Schleiermacher, *Der Römischer Limes in Deutschland*, (1959), 222-3.
51. Gillam and Mann, *op. cit.*, (note 33), 8.
52. Schönberger, *op. cit.*, 168, suggests that the outposts from the Inner may have preceded forts on the Outer *Limes* in at least three places.
53. Though native presence was slight in the Antonine Wall's close vicinity, Flavian and Severan experience clearly suggests menace from the southern Highland region as a whole.
54. Filtzinger, Plank and Cämmerer, *op. cit.*, 78, give this as 8 forts, 9 fortlets and 267 watchtowers (plus the palisade) for the Upper German half of the new *limes* alone.
55. Baatz, *op. cit.*, 57.
56. *ibid.*, 174.

course in Germany. Secondly, the British advance had served its political purpose. The Emperor now felt confident to proceed with his characteristic peace policy, not needing and indeed not wishing to make propaganda capital out of his German frontier rectifications. Perhaps, also, the Scottish experience enabled the Emperor to base his German measures on a sounder assessment, for they at least would be of more enduring[57] value.

In Britain, on the other hand, a fourfold reversal of policy had brought mismanagement and muddle, with progress sacrificed to political maneouvre. The solution would be for Marcus Aurelius and Lucius Verus to abandon Scotland and restore something resembling the Hadrianic balance.

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57. Till the general collapse of the Rhine-Danube overland frontier in 260 at the hands of the Alemanni.

THE REFORMATION IN DUMFRIESSHIRE

by
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Interpretations of the Scottish Reformation have altered little since the actual event itself. An unassailable protestantism bred by the iniquities and shortcomings of the old church rose in 1559/60 at the command of Knox, swept away the old church and established in its stead a vigorous and dynamic protestant establishment. The accuracy of this summary may, however, be questioned. Protestantism in Scotland before 1559 was not an all-embracing force which commanded universal support. On the west coast, Kyle stood alone in Ayrshire as a protestant bastion and although heresy trials at Glasgow in 1539 which seem to have involved some monks of Paisley indicate some measure of support for reformed opinion, the cause in this area was clearly weak.[1] In the East, protestantism was clearly much stronger. Yet even there the real strength appears to have been confined to Fife, South Perthshire, Angus and Mearns.[2] In urban areas there was equally limited support and even Knox is restricted in his claims to the burghs of Ayr, Edinburgh, St. Andrews, Dundee, Perth, Brechin, Montrose and Stirling.[3] In Dundee alone he avers was there an attempt 'to erect the face of a reformed church publicklie'.[4] This claim may be authentic, but other sources relate that while the protestant preaching of Paul Methven was effective, burgesses shuttled him 'from one nighbour to another'.[5] Regional studies alone can evaluate the actual strength and weaknesses of the protestant movement from one part of Scotland to another and in this respect Dumfriesshire provides an interesting comparison with more markedly protestant areas.

What evidence there is for religious life in pre-Reformation Dumfriesshire is mainly restricted to the burgh of Dumfries and its immediate environs, but if the evidence adduced is typical of the county as a whole, and there is nothing which suggests the contrary, the medieval church still commanded popular support and there is no sign of protestant presence. The integrated social and religious life of the burgh of Dumfries still centred round its parish church of St. Michael and its Franciscan Friary; worship in both pursued their normal pattern until overtaken by events.

The parish church at that time was served by a vicar, as it had been since the twelfth century when the parsonage revenues had been appropriated to the abbey of Kelso.[6] John Bryce had begun his career as a chaplain in the burgh, but had become vicar before 27 October, 1549.[7] In this capacity he was assisted in his ecclesiastical duties by a curate, Patrick Wallace, who was already acting as such by 26 April, 1545[8]

1. Ian B. Cowan, *Regional Aspects of the Scottish Reformation* (Historical Association, 1978), 16-18, 21; J. Durkan 'Paisley Abbey in the Sixteenth Century', in *Innes Review*, xxvii (1976), 121-2.
2. Cowan, *Aspects of the Scottish Reformation*, 7-22.
3. J. Knox, *Works*, ed. D. Laing (Edinburgh, 1846-64), vi, i, 78.
4. D. Calderwood, *The True History of the Church of Scotland*, edd. T. Thomson and D. Laing (Woodrow Society, 1842-9), i, 333.
5. ibid., i, 347.
6. Ian B. Cowan, *The Parishes of Medieval Scotland* (Scottish Record Society, 1967) 50.
7. *Protocol Book of Mark Carruthers*, ed. R. C. Reid (Scottish Record Society, 1956), nos. 71, 93, 104, 130.
8. ibid., no. 104.

Both are frequent witnesses to legal transactions of a lay and ecclesiastical nature, and if little information can be gleaned about their actual ecclesiastical duties, some insight can be obtained of the daily round of a thriving burgh church with numerous chaplaincies and altars.[9] The duties of the chaplains who served therein are exemplified in their deeds of institution and included not only the individual saying of mass at the altars which they served, but also collectively in 'singing with the rest of the chaplains . . . on Sundays and all other festivals, at high mass, matins and vespers, and all other usual services performed in the said church by the said chaplains'.[10] Yet another chaplain on his appointment bound himself to sing with the other chaplains and choristers in the choir of the church on all feast days.[11]

Some of these chaplains such as that of the service of the Holy Cross situate in the Rude loft were maintained from the common good of the burgh, but many others had been endowed by private benefactors with whose descendants the patronage remained.[12] One of these, Herbert Cunynghame, patron of the chaplaincy of the Holiblude, went on 7 December 1550 to that altar and presented James Gladstanis for life 'to sing every Thursday a solemn mass of the body of Christ as his predecessors had been wont to do'.[13] Such chaplaincies were frequently insufficiently endowed and a few months later Gladstanis was also presented to the vacant chaplaincy of St. Gregoris by its patron Mathew Gladstanis because 'it will not sustene ane chaplene of itself'.[14]

The motivation to retain such altars was strong and if chaplaincies were frequently under-endowed, pious benefactors were still to the fore even on the eve of the Reformation. Thus when John Corsby resigned a tenement in favour of his daughter and son in law, he not only retained a life rent in the property, but also instructed his heirs to make a payment of sixteen shillings to the chaplains of the parish church of Dumfries 'to celebrate annually once on the day of their burial a Placebo, dirge and a requiem mass for their souls in perpetuity, according to the tenor of the charter of infeftment given to the said chaplains'.[15]

Similar belief in the efficacy of such prayers is also seen in an agreement of 15 June 1547 in which Robert Maxwell, son and heir of John Maxwell of Kowhill bound himself to pay five merks annually to the chaplain of the Lady Service of Holywode if he could obtain entry to the 'Calsay lands at the Brigend of Dumfries in the barony of Drumsleit' from the provost and chapter of Lincluden when he would make enfeftment of that sum for 'suffrage and prayers yearly . . . at the parish altar of Holywode for the souls of the said John Maxwell of Kowhill, Gelis Hervis, his wife' and others.[16]

9. ibid., nos. 133, 138, 151, 182, 190, 197.
10. ibid., no. 16.
11. ibid., no. 138.
12. ibid., nos. 16, 151.
13. ibid., no. 138.
14. ibid., no. 151.
15. ibid., no. 60.
16. ibid., no. 119.

Two years later on 15 July Jonet (*sic*) Maxwell, Lady of Tinwald, spouse of Robert Maxwell of Kowhill bound herself and her heirs to pay and deliver to Sir John Wallace, younger, chaplain, and after his death to the chaplain chosen by Jonet and her heirs, lairds of Tynwald, 10 merks Scots to be raised from the whole lordship of Tynwald; for which sum sir John and his successors, chaplains, bound themselves to celebrate at an undesignated altar within the parish church of Tynwald every week, on Sunday, Wednesday and Friday, High Mass for the souls of the late Edward Maxwell, Lord of Tynwald, husband of Jonet, and William Maxwell, his father, and of Jonet, now Lady of Tynwald'.[17]

Parish churches also witnessed baptisms, the calling of banns and the solemnisation and regularisation of marriage. An example of the latter process occurred in St. Michaels on 6th August 1550 when Hubert Maxwell of Kirkconnel and his wife Janet, daughter of George Maxwell, burgers of Dumfries, delivered to William Gordon, dean of Dunblane, letters executorial dated at Rome, 28 November 1549, under the seal of the penitentiary, giving commission to absolve and dispense the petitioners . . . for marrying within the fourth degree of affinity and kinship and legitimising any children. Absolution was duly given whereupon the couple took legal instruments to protect their further interests.[18] Legal business frequently took place at the High altar of St. Michael which in this respect acted as a focal point in the business as well as the religious life of the community.[19]

The friary church too was a place for legal business. A commissary sat in judgement there in August 1534 'in presence of the official of Nyth', and the fulfillment of a contract entered on 23 November 1532 was noted before the same official on 30 May 1537.[20] The religious activity of the friary was not neglected and donations received in the course of the sixteenth century attest to the friars' zeal in this respect. Some of these gifts took the form of alms from the crown, but private benefactors were also evident.[21] Thus, in 1520 John Logan, vicar of Colvend granted the gift of an annual rent of five merks from a tenement in the Vennelheid, in return for which the friars undertook to celebrate annually for his soul at their altar of St. Salvator, 'within the church beside the altar of the Blessed Virgin without the choir'.[22] Religious fervour which also illustrates business acumen is represented in the delivery at the toolbooth of Dumfries on 6th April, 1536, of a new bell for the friary, which their guardian refused to receive until the bell was examined by skilled men.[23]

In all these activities, the normal tenor of religious life appears to have remained unimpaired for much of the early sixteenth century although in terms of the secular clergy some sign of strain may be discerned in teind disputes relating to the parish churches of Caerlaverock, Ruthwell and Kirkbean, while the feuing of the friary lands in the decade before the Reformation accompanied by the lease of their bridge

17. ibid., no. 129.

18. ibid., no. 135.

19. ibid., no. 156.

20. ibid., nos. 42, 52.

21. W. Moir Bryce, *The Scottish Grey Friars* (Edinburgh, 1909) i, 208; ii, 104-117.

22. ibid., ii, 103-104.

23. *Prot. Book Carruthers*, no. 25.

rights on 10th July 1557 may point to misgivings by the friars about their future.[24] Nevertheless, there was little sign of incipient protestantism in either Dumfries or its environs.

The course of the Reformation locally conformed to this pattern and the parliament which met in 1560 contained only a handful of representatives from Dumfriesshire. The only churchman present was the abbot of New Abbey, no lover of the new regime, while the sole magnate representative was William, Master of Glencairn, although a near neighbour, John, Master Maxwell of Terregles was also in attendance.[25] Representation from among the lairds was equally sparse; James Douglas of Drumlanrig, William Hamilton of Sanquhar and John Creichton, tutor of Sanquhar alone represented the south west.[26] Among the burghs, Kirkcudbright and Wigtown chose to send representatives, but Dumfries was notably absent.[27] This lack of enthusiasm characterised the Reformation in Dumfriesshire.

This verdict is amply borne out in the actual establishment of the Reformed Church not only in Dumfriesshire, but also in that part of Kirkcudbrightshire included in the diocese of Glasgow and deanery of Nithsdale. In Eskdale all five parishes; Canonbie, Ewes-Durris, Overkirk of Ewes, Staplegorton and Westerkirk remained devoid of Protestant ministers until the seventeenth century.[28] Adjacent parishes in Annandale which were left vacant or only intermittently filled after 1574 included Carruthers, Dornock, Ecclefechan, Gretna, Hoddam, Hutton, Irving, Kirkconnel in Annandale, Kirkpatrick-Fleming, Luce, Middlebie, Pennersax, Tundergarth and Wamphray.[29] Of the parishes lying east of Annan, only Corrie, Redkirk and Trailtrow with George Johnston, David Miller and James Campbell respectively possessed readers in 1567 and although apparently without incumbents in 1574, reformed service appears to have been maintained in those three parishes until shortly before this date.[30] With the exception of Trailtrow, which was appropriated to the hospital of the same name, all these Annandale churches were independent parsonages in the patronage of the archbishop of Glasgow or of local lairds who appear to have been indifferent to Reformation principles.[31] Efforts, if any, to provide protestant incumbents were evidently unsuccessful and as late as 1602, reference is made by the General Assembly to kirks within the borders of Annandale 'quilk hes bein desolat continuallie, sen the reformatioun of the religioun within this countre'.[32]

West of Annan, the remaining Annandale parishes present a more complex situation. Applegarth and Sibbaldie lacked readers until the mid-1850's, but Annan, Cummertrees, Dalton Magna, Dalton Parva, Dryfesdale, Johnstone, Kirkpatrick-

24. ibid., nos. 71, 90, 93; *Bryce, Scottish Grey Friars*, i, 209-11.

25. *Acts of the Parliament of Scotland [APS]* edd. T. Thomson and C. Innes (Edinburgh, 1814-75) ii, 525-6.

26. ibid., ii, 526.

27. ibid., ii, 525.

28. Charles H. Haws, *Scottish Parish Clergy at the Reformation 1540-1574* (Scottish Record Society, 1972), 36, 84, 223, 246; *Fasti Ecclesiae Scoticanae*, ed. Hew Scott (Edinburgh, 1915-50), ii, 228, 233, 236, 239; viii, 162-4.

29. Haws, *Scottish Parish Clergy*, 39, 64, 77, 102, 106, 108, 116, 146, 151, 171, 179, 197, 240, 244; *Fasti Ecclesiae Scoticanae*, ii, 205, 209, 222, 224, 244, 246, 248, 250, 252; viii, 161, 166-9.

30. Haws, *Scottish Parish Clergy*, 47, 205, 238; *Fasti Ecclesiae Scoticanae*, ii, 205, 243, 246, viii, 166-7.

31. Cowan, *Parishes*, 29, 35, 47, 58, 78, 82, 84, 91, 119, 123-4, 140, 147, 162, 170, 199-200, 202, 206.

32. *Acts and Proceedings of the General Assemblies of the Kirk of Scotland* (Bannatyne Club, 1839-45), iii, 997.

Juxta, Moffat, Mousewald and Ruthwell all possessed ministers or readers by 1567/8.[33] Of those who served, only three have been identified as pre-Reformation priests, but others may have had similar origins. David Main at Moffat appears initially as a public notary in 1554, while James Maxwell, former vicar of Lochmaben, who had been parson at Castlemilk, conformed and served as minister at Lochmaben with supervision of Castlemilk until his death in 1574/5.[34] At Ruthwell, on the other hand, where the former parson John Ireland conformed and served as reader, difficulties arose in 1572 with his deposition for an unspecified offence.[35] In short, of all the pre-Reformation incumbents in Eskdale and Annandale only two apparently chose to enter the Reformed church and of these one was eventually deposed.

By 1574 other difficulties had also arisen for in all the remaining parishes which had previously possessed readers, the charges were reputedly vacant.[36] Nevertheless, the reader at Johnstone, Adam Wilkie, in fact continued as reader there until at least 1578 while a new reader, John Hamilton appears momentarily at Kirkpatrick Juxta in 1574.[37] Elsewhere old age and lack of commitment to religious change, for the act of conformity of 1573 had required serving incumbents to accept protestantism and the king's authority, may explain these apparent vacancies, many of which, despite subsequent service in the late 1570's and early 1580's were again apparently vacant before the end of the century.[38] In consequence, there is little sign of an active protestant ministry in Annandale in the 1590's or early seventeenth century. In 1608 some twenty-eight charges in Annandale were still said to be vacant.[39] If the evidence does not positively indicate that the old church retained its former influence a further reference in 1608 to 'the great necessitie of the Kirks of Annerdaill, Ewisdaill and Eskdaill and the rest of the Kirks of the Dailles quhilk are altogether unplantit . . . in the quhilke it is regraitit that in many of them the holie communioun was never celebrate' illustrates the nature of the problem.[40] In this respect John Taylor who held the parsonage of Cummertrees before the Reformation, but elected to serve the reformed church as reader at Penpont may have been well aware that Nithsdale was more amenable to protestantism than neighbouring Annandale.[41]

An examination of the deanery of Nithsdale, part of which lay in Dumfriesshire and the remainder in Kirkcudbrightshire confirms this. On the Dumfriesshire side of the Nith, no fewer than eight pre-Reformation clergy conformed and served in the Reformed Church. In addition to John Taylor who transferred his allegiance to Penpont, John Paterson the vicar of Caerlaverock became reader there.[42] At

33. Haws, *Scottish Parish Clergy*, 11-12, 56, 60-1, 66, 116, 152, 180-1, 186, 212-3, 219, *Fasti Ecclesiae Scoticanae*, 11, 199, 201, 203, 207, 210-11, 215, 218, 241, 243, 254; viii, 155-160, 165-9.

34. Haws, *Scottish Parish Clergy*, 34, 165-6, 180-1.

35. ibid., 212-3.

36. ibid., 11, 56, 60-1, 66, 116, 152, 180-1, 186.

37. *Fasti Ecclesiae Scoticanae*, viii, 157; Acts and Decreets, (SRO) lv, 14, 16.

38. *APS*, iii, 72.

39. *Acts and Proceedings of the General Assemblies*, iii, 1053.

40. ibid., iii, 1061.

41. Haws, *Scottish Parish Clergy*, 56, 198, 316.

42. ibid., 33, 56, 198.

Glencairn, John Jameson the vicar pensioner became exhorter in 1561, while at Morton, Archibald Menzies, a canon of Lincluden collegiate church, who was certainly vicar of this parish in 1561, conformed and served as reader and exhorter between 1563 and 1574.[43] At Tinwald, Andrew Easton, who was apparently the pre-Reformation vicar likewise conformed and served in that charge.[44] Lesser incumbents often conformed while their immediate superiors remained true to the old faith. James Bryce, vicar of Dumfries, did not join the reformers, but his curate Patrick Wallace, who had served in that capacity since at least 1545 became minister before 1562.[45] So too at Sanquhar, the parson, Robert Crichton, who was also a canon of Glasgow Cathedral, refused to conform and was actually imprisoned at Perth in 1563 for attempting to restore the mass, but the vicar pensioner, John Young conformed and served as reader before 1567.[46]Less certainty arises in the case of David Wallace, who was reader at Torthorwald in 1567 and 1574, but he may be identifiable with the chaplain of that name who served the altar of St. Andrew in the parish church of Dumfries in the early 1540's.[47]

Most significant of all the conversions to the Protestant cause came from the Premonstratensian canons of Holywood, who had hitherto served three of the abbey's appropriated churches of Dunscore, Holywood, Kirkconnel, Penpont and Tynron.[48] At Dunscore, the sub-prior of Holywood, Andrew Hayning, who had served as the pre-Reformation vicar died in 1562 and was succeeded as vicar and exhorter by canon John Welsh.[49] Yet another canon, Mungo McGhie, who had served the parochial altar at Holywood as vicar-pensioner since 1551 conformed and acted as reader from at least 1567.[50]Other canons whose careers followed a similar pattern included Robert Webb, vicar of Tynron since 1540, who served there as reader between 1561 and 1567 and William Haning who acted as reader in Lochrutton in 1563 and was then succeeded in this office by another canon, John Little, who had already served as reader at Troqueer in 1563, and thereafter acted as reader and exhorter at Lochrutton between 1567 and 1574.[51]Another canon, John Logan, may have acted as reader at Colvend in 1568/9 but this is uncorroborated.[52] Nevertheless, at least five of a community of eleven canons conformed and served in the Reformed church.

Elsewhere the conformity is not attested, protestantism was quickly achieved, often in the early 1560's and in no case later than 1568 at Closeburn, Dalgarno, Durrisdeer, Garvald, Kirkbride and Trailflatt.[53] Only at Dungree and Kirkmichael with no reformed ministry as late as 1574 was there a total lack of protestant service.[54] Dungree may have been served from Trailflatt and Kirkmichael in theory

43. ibid., 99, 185-6.
44. ibid., 236.
45. ibid., 67.
46. ibid., 217-8.
47. ibid., 237; *Prot. Book Carruthers*, nos. 78-9, 96-7
48. Cowan, *Parishes*, 55, 82, 119, 163, 203.
49. Haws, *Scottish Parish Clergy*, 74.
50. ibid., 107.
51. ibid., 166, 239, 241.
52. ibid., 45.
53. ibid., 42, 58, 75, 95, 144, 238.
54. ibid., 70, 150.

was supervised by the minister of Closeburn from at least 1574.[55] This task could not have been an easy one, however, as the local laird was clearly hostile to change and on 27 December, 1560, the General Assembly had unsuccessfully requested parliament to punish him because he caused 'masse daylie to be said, and images holden up, and idolatrie to be maintained within his bounds'.[56] Indeed no effective presentation appears to have been made to this parish after the death of the parson, John Thomson, c. 1579, until 22 January 1604 when a minister was appointed to the charge 'long vacant' since that former incumbent's death.[57]

On the Kirkcudbrightshire side of the Nith, the pattern was very similar. Protestant service was quickly achieved in every parish within the first decade of the Reformation. Kirkbean had possibly a minister in John Morton, one of the canons of the collegiate church of Lincluden, in 1560 and certainly possessed a reader in 1563 when one of the friars of Dumfries, Charles Hume acted in this capacity.[58] Kirkbean was one of the churches appropriated to Lincluden, and yet another of its prebendal churches — Kirkbride — may have possessed a reader in 1560 in the person of Thomas Weir, who certainly held that position in 1563 and 1567.[59] Colvend, Kirkgunzeon, Kirkmahoe, Kirkpatrick-Durham, Lochkindeloch, Lochrutton, Terregles and Troqueer all possessed reformed personnel by 1563.[60] If Kirkpatrick, Irongray and Southwick did not obtain an exhorter and reader respectively until 1567, their adherence to the protestant cause was not unduly delayed and more significantly service in all these parishes was still maintained in 1574.[61]

Few of these readers and exhorters came from the ranks of pre-Reformation incumbents. However, at Southwick, George Olipher who had been presented to the vicarage-pensionary as early as 25 November 1539 served as reader and exhorter between 1567 and 1572.[62] Similarly, at Lochkindeloch, Patrick Cowill, a Cistercian monk of Sweetheart Abbey, who possibly served the pre-Reformation cure of souls, was reader in 1563.[63] Even the presence of a reformed clergyman in this parish is significant as the abbey itself continued to be a focal point for Catholic recusancy and as late as 1579 it was reported that the high altar still stood at the New Abbey.[64]

If few of the reformed clergy served their parishes of origin the antecedents of some of the remainder are known. As noted, one of the friars of Dumfries, Charles Home served first at Kirkbean and later at Troqueer.[65] Two canons of Lincluden likewise conformed; John Morton, possibly minister of Kirkbean in 1560 and Archibald Menzies, exhorter at Morton between 1563 and 1572 also seems to have acted at Colvend in the same period.[66] Other incumbents are not so readily

55. ibid., 150.
56. *Acts and Proceedings of the General Assemblies*, i, 6.
57. Haws, *Scottish Parish Clergy*, 150; Registrum Segreti Sigilli Regum Scottorum (Scottish Record Office), lxxiv, fo. 128.
58. Haws, *Scottish Parish Clergy*, 144.
59. Cowan, *Parishes*, 117-8; Haws, *Scottish Parish Clergy*, 144.
60. ibid., 45, 147-8, 151, 165-6, 234, 239.
61. ibid., 152, 222.
62. ibid., 222.
63. ibid., 165.
64. *Acts and Proceedings of the General Assemblies*, ii, 429.
65. Haws, *Scottish Parish Clergy*, 144, 239, 282.
66. ibid., 45, 144, 185-6.

identifiable, but many seem to have been pre-Reformation chaplains or notaries. Nicol Adair, reader at Kirkgunzeon may be identified with Nicholas Edzar notary in 1558, while Patrick Louch, reader at Terregles in 1563 and at Kirkgunzeon between 1567 and 1574 is certainly to be identified with the pre-Reformation chaplain of that name to be found as a witness to legal instruments in 1549 and 1551.[67] Careful review of charter and other evidence will undoubtedly reveal similar origins for other readers and exhorters.

Although the evidence of conversion is impressive the extent of commitment to the Reformed faith, even in Nithsdale, may be questioned. In August 1575, Peter Watson, minister of Dumfries and commissioner of Nithsdale complained :

> 'That the town of Dumfries in Zuile day last by past, seeing that neither he nor his reader [John Sinclair, who had been a chaplain in the parish church in 1550] would read or use doctrine upon those days, brought a reader of their own with tabron and whisle and caused him read prayers; which exercise they used all the days of Zuile'.[68]

Four years later in 1579, Watson was accused by the General Assembly of not visiting the bounds committed to him and had to admit 'he had visit only within six miles to Dumfries, the rest of the country being destitut of Ministers through deposition of many, some be the General Assemblie, some be the Synodal'.[69]

Amongst those deposed was Ninian Dalyell, the pre-Reformation schoolmaster of Dumfries who had held an astonishing number of appointments in the post-Reformation church, appearing as a reader at Colvend in 1562-3, minister at Lochrutton, Terregles and Troqueer in 1563, minister of Dumfries and Terregles between 1567 and 1572 and finally minister at Caerlaverock in 1574.[70] Dalyell's adherence to the reformed cause is more than suspect and in 1579 he was accused :

> 'That he had privilie professed papistrie, and had corrupted youth with erroneous doctrine in sundrie points; and namely, that he had alledged that the sacrament cannot be ministered but be a priest, had affirmed the reality of the sacrament, the visibility and succession of the Kirk, and other like heads'.[71]

Dalyell refuted the charges by claiming that 'he had never affirmed such heads and craved only reasoning and conference upon the visibility and succession of the Kirk : As to the rest he doubted not'.[72] The disclaimer was questioned and Dalyell's ministry was effectively terminated.

Even such stern action was not immediately effective and the grievances of the Kirk in 1587 still included complaints about the South in general and Dumfries in particular. In addition to condemning the activities of Jesuits and prominent local papists the complaints referred not only to 'superstitious dayes keipt be plaine command, and controlling of the deacons of crafts; all superstitious ryotousness

67. ibid., 147-8, 234; *Prot. Book Carruthers*, nos. 129, 154.

68. *Acts and Proceedings of the General Assemblies*, 1, 334; *Prot. Book Carruthers*, no. 138.

69. *Acts and Proceedings of the General Assemblies*, ii, 429.

70. ibid., ii, 432-3; Haws, Scottish Parish Clergy, 33, 45, 67, 166, 234, 239.

71. *Acts and Proceedings of General Assemblies*, ii, 431.

72. ibid., ii, 431.

at Zuile and Pasche; na Kirks plantit sufficientlie'.[73]

Old beliefs died hard and even as late as 1601, about fifty burgesses of Dumfries, including one of the bailies, a notary and the schoolmaster of the burgh were accused of attending the mass and having 'allurit mony ignorant simple people to schaik of the trew religion'.[74] Many of these difficulties were ascribed to a grave shortage of reformed ministers and as late as 1608 no fewer than seventeen charges in Nithsdale were still vacant.[75]

The Reformation in Dumfriesshire was a late development, resistance and indifference to its principles are very evident. There appears to have been little demand for reform before 1560; the old church retaining its time-honoured place in the community. If some pre-Reformation clergy were prepared to accept the principles of reform after its accomplishment in the 1560's, their commitment to the Reformed Church is more than dubious and frequently either did not outlive them or outlast the more stringent demands of the Act of Conformity of 1573. In this respect the second generation of reformers faced an upward task, and it was through their efforts rather than through that of immediate post-Reformation converts that Dumfriesshire as a whole essentially embraced the Reformed faith. Nevertheless, the earlier generation of reformed clergy also played an important part in that process. As yet their antecedents are barely discernible, but must surely be found amid the multiplicity of chaplaincies and notaries whose ranks in Dumfriesshire, no less than elsewhere, constituted a considerable part of the personnel of the medieval church in Scotland. The quest for the origins of post-Reformation clergy, if successful, will undoubtedly reveal much more about the Reformation in South-West Scotland — a religious upheaval which was not a sudden and cataclysmic event, but rather characterised by slow and intermittent progress which only succeeded in its purpose after several decades of indecision.

73. ibid., ii, 716.

74. *Reg. of the Privy Council of Scotland* edd. J. H. Burton and others (Edinburgh 1877), vi, 312, 326-7.

75. *Acts and Proceedings of General Assemblies*, iii, 1053.

A CORN-DRYING KILN AT AIRYLICK, PORT WILLIAM

by W. F. Cormack

General

The Kiln under discussion is situated at grid reference NX31254945 approximately 65 yards N.W. of the present steading of Airylick Farm, near Port William, in the Machars of Wigtown. It lies 325 feet above sea level on the south edge of a rocky ridge with a thin covering of grass, some of the deeper soils around showing signs of cultivation in the past. (Fig. 1).

A pre-modern settlement occurs in the vicinity of the kiln, evidenced by foundations of buildings, small enclosures, two further kilns, and possible indications of an early type mill.[1] Part of this settlement is overlain by the modern House of Elrig and its gardens. A further settlement known as Barhapple or

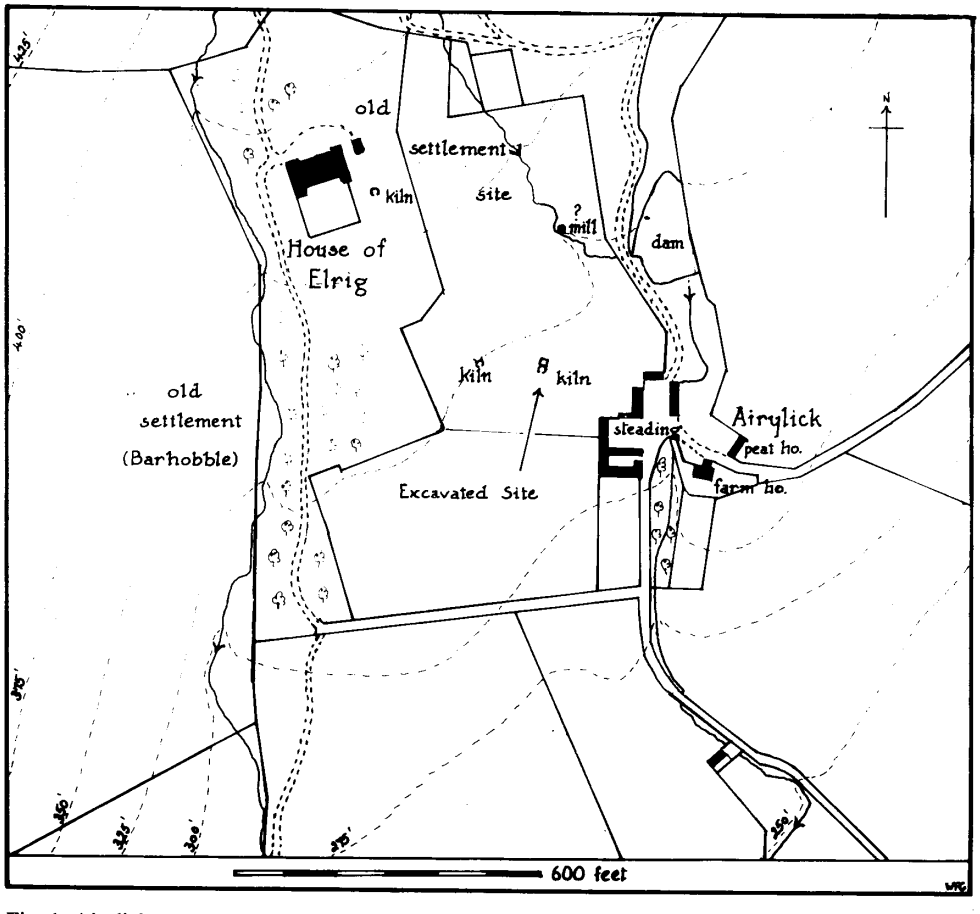

Fig. 1. Airylick, general location map, based on the 1850 6" and 1908 25" O.S. maps with additions. The contours, in feet above O.D., are sketched in only.

1. Running parallel to the burn (see fig. 1) is a double line of stones suggestive of supports for a timber flume, they terminate in a pile of stones which could conceal foundations of a small norse type mill.

Barhobble, indicated by foundations, enclosures and old cultivations adjoins this settlement on the west on the neighbouring property of Changue. A third settlement known as Easter Airylick occurs on Airylick farm some 1100 yards away to the north east at grid reference NX315505. This comprises foundations, enclosures, a corn drying kiln and another possible early mill.[2] A fourth settlement occurs nearby at NX311488 on the adjoining property of Airyolland. Consisting of foundations, enclosures, and corn drying kiln, this settlement is known as Clays (or Clies) of Airyolland.

Although now sharing the end of a cul-de-sac with the House of Elrig, Airylick was until about 100 years ago situated on a nodal point of old communication routes. From the west is a track leading to it from Chippermore and Chapel Finnian, while it sits astride one leading from Kirk of Mochrum by Elrig village to Old Place of Mochrum. Other tracks lead eastward. Remains of early crosses are built into the House of Elrig and Airylick steading and a lost ecclesiastical site has been postulated for the neighbourhood.[3]

The kiln itself is in a reasonable state of preservation but an associated barn has been reduced to its foundation. Since Mr John McFadzean, the tenant of Airylick, had intended rebuilding the collapsed walling, and restoring the barn to a course or two high, it was decided to investigate and plan the existing structure beforehand. Accordingly an excavation was carried out in the autumn of 1979 by the writer assisted by his wife Sheila, Miss Jessie Patterson, Mr McFadzean and Mr & Mrs Jack Scott. The writer is grateful to these as also to Miss Flora Stuart, the owner, who readily granted permission, as also to Dr. David Habeshaw, of the East of Scotland College of Agriculture and Mr A. E. Truckell of Dumfries Museum who kindly reported on the grain and on the pottery and glass respectively.

The Kiln — This is bowl shaped, 4 ft. 3 ins. diameter at the foot increasing to 6 feet diameter at the existing top. Built of stone walling particularly neatly on the inside, on the outside it has on the east utilised a natural outcrop of stone. Clay mortar, extant in the lower courses, had been used. Two wings, slightly splayed outwards 3 feet and 3 ft. 6 ins. in length project on the N.E. and N.W. sides respectively. Rubble is piled against the outside, which was grassed over. A cut into this rubble on the W. side showed it had been piled, probably for revetment purposes, against a near-vertical roughly built wall, which was bulging outwards. Also on the west side, in prolongation of a presumed south gable of the barn, was a buttress.

The interior of the kiln did not appear to have a scarcement for a drying floor to hold the grain, but the sides were sufficiently rough to have enabled spars to be jammed across the bowl or a floor could have been laid on the top of the masonry. The lower stones were soot blackened, while many were cracked and splintered.

A flue, square in section, entered the bowl from the south — its lintel stones had been robbed, but on the west side, all the uprights and on the east side, most of the uprights, smoke blackened, remained. At the south orifice it opened into a hearth; which was clearly defined on the west side. For dimensions see plan.

2. A stream passing through the settlement appears to have had a dam and canalisation of its course into a lade. Furthermore a nearby feature is known as Barmullin.
3. R. Radford, Castle Loch Mochrum, these *Transactions* XXVIII (1951) p. 52.

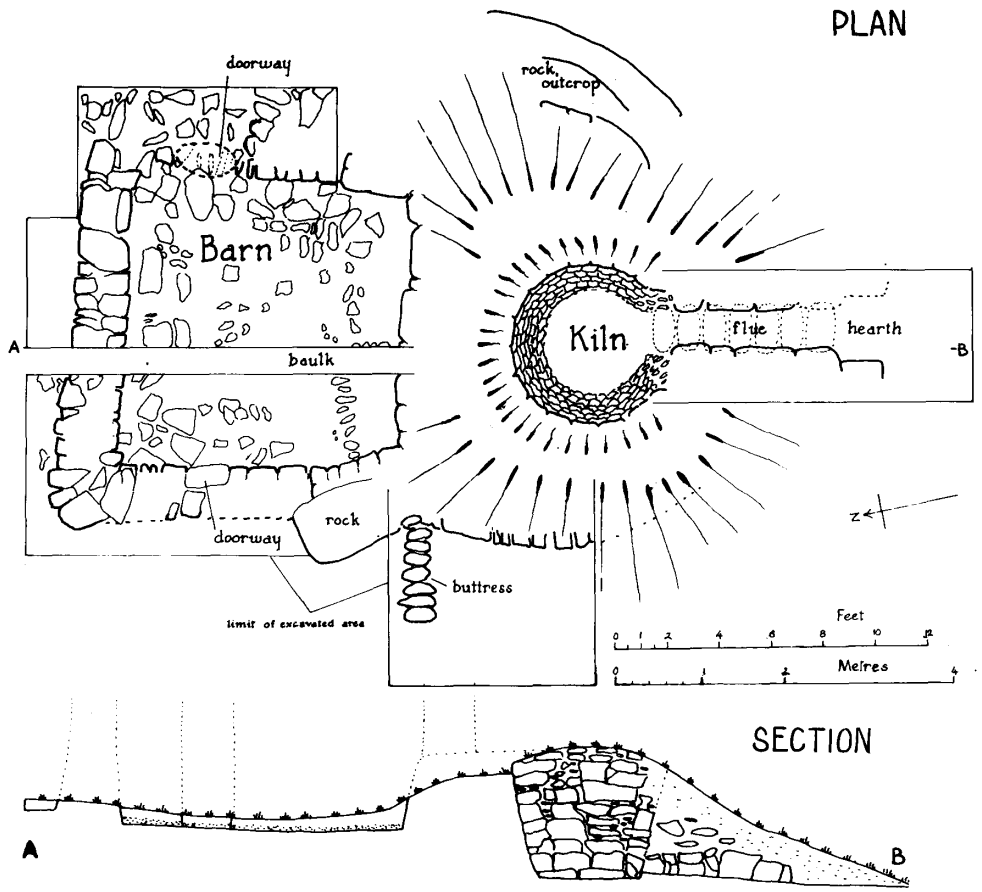

Fig. 2. Airylick, plan of barn and corn-drying kiln, with (below) section between A and B. The masonry of the kiln bowl is shown on the plan conventionally only.

There was no evidence of any means of communication from the kiln to the barn, nor of the original height of the kiln, nor where the kiln was charged from.

A prehistoric chert core (unburnt) was found in the bottom of the kiln; other finds were of recent origin.

The Barn — Built on to the two "wings" of the kiln was a barn, almost square in shape, the maximum internal length and width being 11 feet. The construction was rather rough, in marked contrast to that of the kiln and the "wings", nor were the barn walls satisfactorily bonded into the latter. The maximum remaining height of the walls was 1 ft. 8 ins. at the south wall, this representing 4 or 5 courses of masonry. The west wall, northward of the "wing" had been reduced to its foundations and only the inner face survived. A threshold stone 2 ft. 6 ins. wide indicated a doorway on the west side. The east wall survived about 1 ft. 6 ins. high on its inner face, to a point six feet from the south wall where it turned E. At this point what appeared to be a displaced threshold stone 2 ft. 5 ins. long, was lying on the barn floor. There thus

appeared to have been a doorway on this side also, opposite that on the west, possibly for winnowing purposes.

The floor of the barn had been of clay, which was particularly well preserved in the south part, between the wings, but between the doors it had totally disintegrated and had been superseded by a rough paved floor, itself much displaced and damaged. A portion of the clay floor adjoining the kiln seemed to be at a slightly higher level, the edge being protected by a rough line of stones? Trampled into the clay floor was a quantity of carbonised grain. Some burnt daub also appeared at the south end. The remainder of the finds, which included a prehistoric flint, were generally in the disturbed area between the doors.

The north wall, 2 ft. 3 ins. thick, survived one or two courses high and with both faces extant — the inner being particularly well made. Several of the stones were massive. Built into the N.E. corner of the barn was a stone having pecked areas — see list of finds.

Outside and against the north wall of the barn was a patch of decaying peat below the topsoil.

Finds

Flint & chert

1) Multi-platform core in creamy and chocolate coloured chert — cubical — max. dimension 30 m.m. — a few small bladelet scars. Unburnt. In bottom of kiln bowl — probably Neolithic.
2) Flake of white opaque flint with bulb, 13 m.m. long by 12 m.m. wide. Unburnt. Utilised? On floor of barn — Mesolithic or Neolithic.

Pottery & Glass (A.E.T.)

3) Triangular fragment of very hard thin white stoneware with triple cord mark under rim — worn edges. Below turf outside N.E. corner of Barn. Late 15th or early 16th century.
4) 2 pieces hard red grey pottery with dense black glaze — crock ware and chips of hard reddish grey ware — On barn floor — all 18th early 19th century.
5) Part of neck and shoulder of bottle — thick black glass — flue — 18th century.
6) Piece of bottle glass dull green moderately thin and flake of brownish green glass — fill of kiln bowl — both would suit 18th century.

Daub

7) Piece of baked daub from upper fill of kiln bowl and 2 or 3 pieces — barn floor at S. end — undatable but probably pre 1800.

Stone

8) Stone 9 to 12 ins. wide by 15 ins. long by 5 ins. thick of rather gritty silurian stone. One face has two pecked circular areas 4 ins. in diameter, and an area 7 ins. by 5 ins. on that face reduced to a level surface by pecking. The adjoining long side has been reduced by a similar technique also one of the ends. Part of foundation of barn gable. No other stone on the site, or in the neighbouring

steading of Airylick shows similar working. On the other hand two Viking-age crosses found nearby exhibit the same technique.[4] It is proposed to rebuild this stone into the barn.

Brass

9) Base of a shotgun cartridge, centre fire — marked Kynoch, Birmingham. Found in upper levels of bowl of kiln — late 19th — 20th century.

Iron

10) A square sectioned harrow tine — 9 ins. long — on barn floor — after mid 18th century.

11) 2 hand-made nails — on barn floor.

Vegetable Matter

12) Peat — A small deposit of peat was found outside the N. gable of the barn.

13) Grain — A quantity of carbonised grain was found trampled into the clay floor of the barn near its south end. Dr. David Habeshaw reports as follows:

"Crop Species *Avena strigosa* — small or bristle oat
Avena sativa— common oat.

There are remains of awns in the sample which could have come from either" — (he explains that when the clay is broken up part of the husk remains with the former so that the more or less entire grain *appearing* like a groat falls out. However a larger sample showed that the oats were hulled i.e. they retained their husk. The dehusked appearance of much of the grain seemed to be an artifact of sample preparation since all the grain still embedded in its matrix of clay was hulled) — "Notwithstanding the "clean" appearance of the grains I was able to get enough of the lemma base positively to identify *strigosa*. Some of the larger grains are too plump to be *strigosa* so I suspect that some admixture of *sativa* is present. Since it is unlikely that these two crops would have been grown as an admixture I would assume that they represent the use of the kiln for both types. This would seem to point to a fairly prolonged period of use. *Sativa* oats are less common in the sample than *strigosa* which may indicate that the use of the kiln did not continue for long after the introduction of the higher-yielding *sativa* types.

I found a small portion of a fruit of *Gallium aparine* (Cleavers) and a small piece of ring porous wood, probably oak, otherwise the rest of the sample was of the oat varieties mentioned above."

Bone (A.E.T.)

14) A sheep tooth showing much wear from an aged animal — floor of barn.

Discussion

Although grain drying kilns have apparently been in use in the north and west of the British Isles from Roman times,[5] and two of those in the South West of Scotland

4. D.O.E. *Official Guide to Whithorn and Kirkmadrine* (1953). Stone 22 from Boghouse, Mochrum and stone 24 from Elrig farmhouse, Mochrum.

5. L. Scott. Corn Drying Kilns. *Antiquity* 100 (1951) p. 196.

have been established as mediaeval,[6] the great majority of those visible or recorded in the south west are clearly recent. The Hearth Tax Lists of 1692[7] show that at the end of the 17th century they were widespread in Wigtownshire where there was perhaps one for every half dozen households. They are relatively rare however in the Dumfriesshire Lists.[8] The Wigtownshire List shows that there were 4 households on Airylick, each with one hearth and sharing half a kiln between them. The holder of the other half is not specified but it could have been included with Changue (6 households with one kiln) or with Airyolland (14 households with 2 kilns). The other kilns on Airylick must pre-date or post-date the List, or perhaps the latter was not so accurate as the docquet implies. At any rate the position of the kiln relative to the steading and farmhouse of Airylick, the older pottery and the type of grain are all consistent with its being the kiln referred to in the Hearth Tax List.

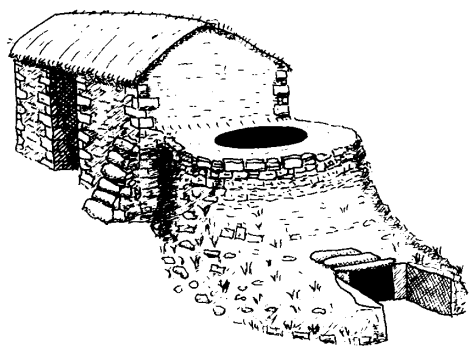

Fig. 3. Airylick; Corn-drying kiln and barn. A reconstructed impression of the complete structure. There was no evidence of any communicating opening between barn and kiln but one may well have existed. Furthermore the kiln bowl may have had a superstructure of perishable materials; see text for discussion.

The date of its abandonment can likewise only be inferred. The Ordnance Survey Map of 1850, surveyed shortly before, refers to it as an "old kiln". Their purpose has passed out of local memory in Wigtownshire in contrast to their continued use in the northern and western isles of Scotland until the end of the 19th century. A number of factors, either singly or in combination, hastened their end. In her report on a corn kiln in Bute on land owned by the Earl of Bute,[9] Isabel Milligan sees significance in the abandonment of grain rents in favour of money rents in 1759 on the Bute properties on that island, with the probable result of less corn being grown. This appears logical and it is quite possible that the same policy and consequence obtained on his Mochrum estate, of which Airylick formed part. Possibly the factor of the greatest weight was the introduction of the potato. Rare at the middle of the 18th century, it was being widely planted by the end — a change of diet which reduced the consumption of grain to perhaps one third of what it had been

6. J. Scott Elliot. A Grain Drying Kiln, Rue Farm, Dumfriesshire. These *Transactions* XXXIX (1962) p. 80, and Isabel D. Milligan. Corn Kilns in Bute. *Trans. Buteshire N.H.S.* XV (1963) p. 53 (St. Blane's Chapel).
7. H. C. Jones (transcriber and annotator). *The Wigtownshire Hearth Tax Collection Lists of 1692* by Wm. Fullartoun (1969) (see Review elsewhere in this volume).
8. D. Adamson. The Hearth Tax. These *Transactions* XLVII - XLIX.
9. Isabel D. Milligan op. cit.

earlier and which was to have fatal consequences, in Ireland at least, in the 1840's. Such smaller quantities of grain as required drying thereafter could be treated centrally at one of the mills in the parish. The evidence from the grain, trodden into a clay floor, is that the barn went out of use just as new, modern types of oats were coming in. These factors taken together suggest that the kiln went out of use about the end of the 18th century. The barn may have continued as a general purpose shed for some time, during which the clay floor broke up and the 19th century artifacts became deposited.

As regards the structure of the kiln and its relation to the barn, these agree with those reported from Polmaddy in Galloway[10] and Armaleish in Bute,[11] also those visible on the ground in S.W. Scotland, in that the kiln is a free standing structure, away from the house and steading, either on its own or with a barn added to it. These contrast with those from the northern and western isles[12] where the kiln is either built on to and part of the barn, itself attached to the house, or incorporated into a rectangular structure. A kiln on the Isle of Man (where they are rare) is also of this last mentioned northern and Hebridean type.[13]

In S.W. Scotland the kiln seems, on the present evidence, to have been the primary structure with wings incorporated into it, on to which a barn could be attached.[14] The difference in building technique between the kiln and barn at Airylick perhaps implies that the former was professionally built on behalf of the landlord, whereas the barn was a tenant's erection — a do-it-yourself structure which could be dismantled when the tenant vacated the holding.

For those familiar with the imposing domed structures of the northern isles a kiln which perhaps terminated about 4 feet above its base, and open to the elements at that, is rather disappointing, but there appears to be no evidence from surviving specimens that the stone built structure was ever any higher in the south west. Indeed the Hearth Tax List, in referring to one or two kilns, as being "headed",[15] implies that the remainder, which are referred to simply as "kilns" or occasionally as "headless kilns", had no permanent superstructure. However one would expect a top or cowl, albeit in some perishable material such as straw or turf. A kiln in Arran is reported in 1807 to have had a covering of sticks and blankets,[16] but this might refer to the drying floor itself. The unburnt chert core at Airylick moreover could well have come from a turf superstructure which has vanished. It will be recollected too that one or two pieces of daub were found, which could have come from a superstructure of wattle or may represent burned clay mortar.

It is presumed that the barn was a gabled and roofed structure. The walls are of suitable thickness for the required height in stone and the buttress at a point of thrust implies a gable at the south end. There was no evidence of cruck slots in the side walls, but in this small structure only one cruck would be necessary at the mid point

10. M. J. Yates. Excavations at Polmaddy, New Galloway. These *Transactions* LIII (1977-8) p. 134.
11. Isabel D. Milligan op. cit.
12. John Firth. *Reminiscences of an Orkney Parish* pp. 17 etc. A. Fenton — *Scottish Country Life* p. 94. A. Fenton — *The Northern Isles* (1978) pp. 375 etc. D.O.E. Official Guide *The Island Blackhouse* (1978) p. 44.
13. B. Megaw and A. M. Cubbon — Corn Kiln at Foresters Lodge, Sulby. *Journal of the Manx Museum* Vol. VII, 85 (1969) pp. 113-6.
14. E.g. M. J. Yates op. cit. Kiln 16 on the general plan. At Airylick a kiln occurs 40 yards W. of the one under discussion (see fig. 1). Some of the turf was temporarily removed to check its structure. It has a D shaped bowl, now flush with the ground and filled with stones. From the corners of the "D" two wings extend out 5 feet. There is no sign of a barn.
15. H. C. Jones op. cit. p. 52 and p. 54.
16. J. Headrich. *View of Arran* (1807).

and it could have terminated above the surviving structure. The flint on the floor is likely to have come from a collapsed turf roof. Although the south wall of the barn survived to a height of 1 ft. 8 ins. there was no evidence of an opening or its associated steps through which the drying floor could be charged with grain and attended to from the barn. Accordingly, with some diffidence, no communicating opening between barn and kiln is shown in fig. 3, but this point should be treated as inconclusive.

Unlike in the northern isles no contemporary account of their use in Galloway seems to have survived, but it is perhaps permissible to be reminded of what Symson wrote in 1684,[17] viz.

"The oates in the Shire, are commonly very bad, being compared with the oates of many other shires, having long beards or awnds, and although their measure be heaped, and the weakest and worst of their oates, which they reserve for their horses and seed, be winnow'd and drawn out, yet three bolls of corne will not yield much more than one boll of good and sufficient meal straked measure. However the country people have the dexterity of making excellent and very hearty meal, I mean, when they make it designedly, and for their own use, shelling it in the mill twice, and sometime thrice before they grind it into meal; and then they grind it not so small and fine, as they do commonly in other parts. It is fit to be remembered here that before they carry the corne to the mill, after it is dry'd in the kiln, they lay it upon the kiln floor in a circular bed, about a foot thick, then being barefoot, they go among it, rubbing it with their feet, (this they call lomeing of the corne) and by this means the long beards or awnds are separated from the corne, and the corne made, as they terme it, more snod and easie to pass through the mill, when they are shelling of the corne there. The ordinary increase of this corne is but three to one, which, for they sow much, will, except in years of greate scarcitie, abundantly satisfy themselves and furnish the moorlands plentifully with victual; yea and often times they vend and transport much thereof to other countreys:

In some places, viz, near the sea, they sow a whiter and greater corne, which hath a greater encrease both to the mill and from it".

In this passage Symson seems to be describing the very *strigosa* type of oat found at Airylick and "lomeing" would account for its incorporation in the barn floor. This word used for the removal of the beards does not occur in Jamieson[18] or McTaggart[19] as a "Scottish" word but is quite clearly the (anglicised) Gaelic word *lom*, to unhusk, known when Dwelly was compiling his dictionary in the first decade of this century.[20] A Stornoway informant of his reported: "when the grain was hardened by the fire previous to being put in the quern to grind, it was placed in a tub and stamped with the bare feet to separate the hard inner shells of the corn; this operation was called *lomadh*". An informant from Wick however reported that *lomadh* could mean threshing or "was performed by driving a spade into a tub containing the grain". This use of a Gaelic word for a process has to be reconciled with the virtual absence of the

17 A. Symson, *A Large Description of Galloway* (1684) at p. 72.
18 Jamieson's *Dictionary of the Scottish Language* (abridged) (1867).
19 McTaggart, *Scottish Gallovidian Encyclopaedia* (1824).
20 E. Dwelly, *The Illustrated Gaelic – English Dictionary* (1901-11) – "lom".

Gaelic word *àth* (kiln) as a place name whereas "Kiln Knowe" and "Kiln Hill" abound in the south west.

Forgotten with the kilns have been the technical names for the parts of the structure. Fenton has given them for Scotland generally, the Northern Isles and the Gaelic north west,[21] but only some of these terms can be confirmed as having been in use in the south west. The man in charge was the Killman — kiln was of course pronounced "kill" — and the fireplace Killogie,[22] as elsewhere in Scotland. Burns however refers to the bowl as the "pat" (i.e. pot) and the beams or sticks holding the drying floor in the pot "bauks" (i.e. baulks);[23] these presumably being the words used in Ayrshire.

Gone too are the social aspects of the kiln, although we have its use for tax evasion in the story of the tenants of nearby Drumtroddan foiling the excisemen by having a hidey hole for contraband beneath their kiln.[24] No doubt the case of the woman in the Isle of Man charged with cursing (a form of witchcraft) could have been paralleled from our district — the particular curse being that a certain man might "be burned in his own corn kiln".[25] Nor do any kiln-inspired proverbs seem to have survived — such as the Gaelic proverb, "for my part of the grain, let the kiln catch fire."[26] However thanks to Robert Burns their valued use in interpreting the future is known to us. In a note to his poem, "Halloween" he writes (1796) "Whoever would with success try this spell, must strictly observe these directions. Steal out (from the celebrations), all alone to the kiln and darkling throw into the pot a clew of blue yarn; wind it in a new clew off the old one; and towards the latter end, something will hold the thread; demand, wha hauds? i.e. who holds? and answer will be returned from the kiln pot by naming the Christian and sirname of your future spouse".

After telling in verse 11 how Mirren, who has designs on Andrew Bell, steals out to the kiln, he continues in verse 12 —

And ay she win't, an' ay she swat,
I wat she made nae jaukin,
Till something held within the pat,
Guid Lord! but she was quaukin.
But whether 'twas the Deil himsel,
Or whether 'twas a bauk-en',
Or whether it was Andrew Bell,
She didna wait on talkin,
To speir that night.

21. A. Fenton. *The Northern Isles* (1978) p. 377 etc.
22. McTaggart op. cit.
23. R. Burns — "Halloween" in *Poetical Works of Robert Burns* ed. W. S. Douglas (1876).
24. Quoted by G. Irving in *The Solway Smugglers* (1971) p. 21.
25. Quoted by M. Killip in *Folklore of the Isle of Man* (1976), p. 59.
26. E. Dwelly op. cit. under "*àth*,f."

CHARTISM IN DUMFRIES 1830-50

by Colin Troup

Dumfries was one of Scotland's more important centres of Chartism; although this is surprising for a town without much heavy industry situated in a preponderantly agricultural district, it becomes less so when viewed in the light of the radical feelings at that time fairly strong in Dumfries. The middle class had a loud voice in the Town Council which, *inter alia,* petitioned the King before the passing of the Reform Bill in 1832 to say that it could not be responsible for the consequences if the Bill was not passed; indeed there was a noisy demonstration in support of Parliamentary Reform in which a few windows were broken, and when the orator who was held responsible was committed to gaol a further riot had to be dispersed by a strong body of constables before the martyr was freed. The Bill in fact increased the electorate from 93 to 967.[1]

The working classes of the town were disappointed here as elsewhere when, after supporting Reform, they were spurned by the middle classes who had achieved their own ends; the parallel with national events was to continue. When Working Men's Associations were founded throughout the country in the years 1836-1837, the Dumfries and Maxwelltown WMA came into being. In the same period some self-styled "friends of freedom" (just over a dozen individuals) met in obscurity and seclusion to discuss and study the principles of political freedom.[2] The working classes were beginning to take an interest in the possibility of their own advancement: they had since its inception in 1825 completely ignored the Mechanics Institute, much vaunted (by itself) as a fine means of improvement for the working man. However, its patrons consisted largely of wealthy landowners, and the whole organisation was so bourgeois in its constitution and outlook (considering "improvement" for the artisan to mean an education which would be a suitably apolitical road to membership of the middle class: "a systematic instruction in different branches of knowledge" such as mathematics, the classics and science) that it starved in a climate of apathy. The Institute's bourgeois patrons could rail against the wilfully ignorant artisans, and could trumpet the virtues of their own creation, but the figures speak for themselves: in 1836, from the 1498 mechanics in Dumfries, only 30 were members of the Mechanics Institute. Even while the Institute could hold great exhibitions of "arts and manufactures" (eg. in the months September-December 1841) the actual membership remained pitifully low. In 1843 only 23 of the 83 members were working men and the Institute almost closed.[3] It is interesting to note that the Institute's leanest years (the mid-forties) were those in which middle-class Chartism was gaining the ascendancy, in Scotland in general and also in Dumfries.

The working classes tended to rely on their own efforts (in keeping with the prevailing "political economy" of the day which advocated "self help") to alleviate their sufferings. Donations of food and money from the public enabled soup kitchens to be set up during the winter months; blankets were distributed and there were other sporadic and disjointed acts of charity by the upper classes, but in the main the unemployed and the poor were helped by their own trades or by their membership of

1. McDowall *The History of Dumfries* pp. 719-728.
2. Speech by Andrew Wardrop, reported in the *Dumfries Times* 8/11/1841.
3. Statistics on Mechanics Institute from *Dumfries and Galloway Courier* 30/5/1876.

an organisation like the Loyal Robert Burns Lodge (founded in 1841) which for a regular contribution in prosperous times undertook to ensure a weekly allowance and the services of the Lodge surgeon when members were destitute or unemployed.[4]

In fact the degree of poverty and the prevalence of poor conditions in Dumfries during the period indicate that the Chartist group of the town must have gained considerable support because of popular discontent. While the compilers of the New Statistical Account of 1841 chose to write that

> "although a great deal of poverty exists in the obscure parts of the town, the inhabitants enjoy to a very considerable degree the comforts and advantages of society, and are contented with their situation and circumstances"[5]

several more diligent enquirers had given or were to give the lie to this statement. Mr Symmons, Her Majesty's Commissioner for inquiring into the condition of the handloom weavers in Scotland, visited Dumfries in early June 1838 and unearthed some important statistics.[6] The weavers, members of a class particularly badly hit by the industrial revolution, appointed a committee of their own members to put their case to Mr Symmons in the Council Chamber, and many more filled the room. Questions from Symmons and some councillors discovered that the weavers, of whom perhaps one third to one half were Irish, received not more than 6s. per week for able bodied men and sometimes about 3s., while labourers got 9-10s. clear. Some good work was available, but only about 25 men in the town were capable of doing it. Women got less than 2s. per week, and weavers considered themselves very badly off, particularly if they were trying to keep children. Far from resenting the encroachments of machinery, the weavers bewailed the fact that there were no factories they could put their children into. They suffered in competition with the Irish who would work for subsistence wages, did not like the Corn Laws and were not in favour of emigration because they did not know how to work on the land. They also wanted free education for their children.

Mr Symmons was impressed by the apparent honesty of the weavers and remarked that the wages in Dumfries were lower than those anywhere else in Scotland he had visited. The distress of the weavers is often cited as a contributary factor in the rise of Chartism, they being one of the most important groups amongst workers with a grievance, and the particularly low local wage-rates make it more than probable that these unfortunates supplied part of the crowds which attended the many open-air meetings in the town. They were concentrated particularly in Gasstown, a district on the outskirts of Dumfries, where Symmons visited some families to see their domestic circumstances for himself. One of their number has left his own testament: Roger Quinn was a local example of the self-educated working man. A cotton handloom weaver with no school education and a large family, sometimes working 16 hours a day, he nevertheless trained himself to write poetry which was subsequently published. In one collection[7] he included a poem in which he proposed that the weavers of Gasstown were in such a wretched state that the very sight of them would constitute an unanswerable moral-force argument in favour of

4. Poor relief : Donaldson *Transactions of D. & G. N.H. & A.S. Vol. LIII* pp. 147-156.
5. *New Statistical Account* p. 16.
6. *Dumfries and Galloway Courier* 6/6/1838.
7. *The Heather Lintie.*

the Charter and the 1839 petition.[8] The views of the weavers and HM Commissioner were thus roughly coincidental.

The distress of the handloom weavers in particular was significant in the general national discontent which contributed to the rise of Chartism, and was obviously so in Dumfries. Like a microcosm of the national condition, the condition of the working classes and possible remedies came into prominence at the time of the nationwide depression. The theoretical roots and branches of the local Chartist movement were healthy and strong, but the difficult conditions of the working class in the town caused a response on a purely practical level to the Chartist group. The weavers have already been mentioned; it seems that many of the working classes turned to Chartism not in the hope of better and fairer representation, but in the hope that the distress would soon be ended. Dumfries was not a manufacturing district of any significance and speakers tended to talk of the disturbances which had affected the manufacturing districts and which were likely to appear locally if the depression continued. Nevertheless, descriptions of the poorer quarters of Dumfries bear comparison with the worst pages of Engels; there was a great deal of poverty, and relief was not sufficient to support an otherwise unaided family.[9] Begging was therefore fairly common. Education was out of the question for many poor families, but morals were adversely affected by the large number of licensed premises in the town[10] and the cholera outbreak of 1832 had left widows and orphans who took to prostitution.[11] There was always a large crowd of working men at Chartist meetings, but the relevance and importance of political principles to hungry workers is illustrated by Quinn. He tells of a group of weavers who attended a public meeting at which the principal speaker was the noted local Chartist Andrew Wardrop. One of these said to his companions as he left that "the man preached an unco guid sermon, but I can never tell yet what pairt o' the Bible he took his text frae."[12]

There was in fact a notable breakdown in the co-operation between the ordinary working class and the theoretical Chartists. It became most obvious on July 2nd, 1842, when, after a long period of depression, a rise of almost 10% was announced for the price of oatmeal, the poor and destitute population's staple food.[13] When nearly half of the population was unemployed, and wages were scarce and low, the increase not surprisingly caused trouble.[14] A "meal mob" collected in the town and attacked and damaged the shops of six retail meal dealers "accused of making their bread-stuffs artificially dear".[15] For a few hours the town was in a state of fear, but soon "all classes and grades of politicians", Tories, Whigs, Radicals and Chartists, joined together in an attempt to suppress the riot. It was in fact dispersed and put down by "the healthy check and gentle coercion of our efficient municipal constabulary force;"[16] a statement which leaves a lot unsaid. The "Times" smugly remarked that "no respectable labouring class person was involved"[17] and that these

8. See the appendix for the relevant verses.
9. Poor Law Inquiry (Scotland) 1844.
10. *New Statistical Account* (quoted in *3rd Statistical Account*, p. 119).
11. Poor Law Inquiry (Scotland) op. cit.
12. *The Heather Lintie* p. 59.
13. *Dumfries Times* 4/7/1842.
14. ibid.
15. McDowall *The History of Dumfries* p. 817.
16. *Dumfries Times* 4/7/1842.
17. ibid.

foolish attacks destroyed the charity and sympathy which alone could alleviate the suffering. There were twelve arrests, and seven sentences of three months duration were imposed.[18]

An outbreak of a different nature but with similar overtones had occurred in February 1840 when Queen Victoria was married. The loyal burgh of Dumfries celebrated this with a holiday and fireworks in the evening. The Chartists however placed a large placard in their reading-room which advised the working classes to refrain from uniting in any expression of joy. They held a muster in the evening, and when the patriotic citizens of Dumfries lit up their celebratory bonfires and tar-barrels, the "Chartists"[19] sallied forth under the leadership of one Thomas Johnstone. Andrew Wardrop apparently tried to halt this "unmanly attempt"[20] but without success. There then ensued a street battle of sorts in which the royalists and the Chartists fought for control of the bonfires with sticks and staves. Eventually the working men seized several tar-barrels and threw them into the River Nith; all the good loyal citizens of Dumfries were outraged by this heinous conduct.[21]

What these two almost isolated outbreaks of violence bring to light are the divisions not only between the "liberal" press, the "pretended friends of justice"[22] who frowned on the Chartists, and the latter who in their turn distrusted the press, but also those between the theoretical Chartists and the physical force men, which shade into those between the thinking Chartists and the bulk of the population who provided the crowds. The factious nature of the national Chartist movement is mirrored in miniature by the Dumfries version of Chartism. Even the split between Chartists proper and middle-class orientated Sturge-ites took place locally. It occurred in the early 1840's when Joseph Sturge formed a "Complete Suffrage Union;" essentially Chartist without mentioning the emotive word "Chartism," it was also concerned to co-operate peacefully with the middle classes. It irritated the hard-core Chartists and found more favour in Scotland, where Chartism tended to be less extreme and more sensible, than in England.[23] The middle-class liberal press was naturally very kindly disposed towards Mr Sturge and his disguised Chartism.

However, the Sturge of Dumfries, Robert Somers, had conducted a vociferous campaign on behalf of the poor and destitute in the parish of Penninghame. A member of Newton Stewart Universal Suffrage Association, he tried to hold a public meeting to examine the conditions of the above-mentioned poor. He was subsequently infuriated by the refusal of the parish minister and the Kirk heritors to allow him to hold his meeting, particularly as these people were supposed to care for the parish poor. Somers denounced this hypocrisy in several substantial letters to the "Dumfries Times", also citing many examples of destitution and misery and generally doing his best to turn the spotlight of public attention onto the abuses he had discovered.[24] The Kirk Session of Penninghame must have been chagrined to realise that their actions intended to silence Somers had in fact amplified his voice.

Several other attempts were made to smother free speech by and about the Chartists. In December 1841 Andrew Wardrop travelled to Newton Stewart and expounded the virtues of Universal as opposed to Household Suffrage to the

18. The account is from McDowall (op. cit.) and the *Times* (op. cit.).
19. As they were dubbed by the *Courier*, 19/2/1840. They were more probably a crowd of working men first, and Chartists second, if at all.
20. *Dumfries and Galloway Courier* 19/2/1840.
21. ibid.
22. Address by Dumfries and Maxwelltown WMA, 22/7/1839.
23. See Hovell, pp. 240-250 and 264-267; Jones, p. 74; Engels p. 260.

Newton Stewart U.S.A.; there was much talk of the growing middle-class support from Associations in Castle-Douglas and Gatehouse, and from inchoate associations in Kirkcowan, New Galloway, Stranraer etc. Not only was the landlord of a ballroom in Kirkcowan so afraid of his laird that he did not allow a meeting to take place (whereupon the assembly adjourned to the street and transacted its business, violently interrupted by the Tory laird of Craighlaw's gamekeeper, who growled and fought), but subsequently the reportage of the very existence of Chartists in Galloway elicited angry letters demanding that no such reports should be published. The "Dumfries Times" commendably refused to comply with these wishes, even agreeing that the "moral-force" Chartists had great grievances and saying that while the Chartists were peaceable they deserved to be reported; if they were wrong, the "Times" argued, the public should be able to decide for itself.[25]

Somers met similar opposition in Stranraer in August 1842: when he arrived in that town to advertise his middle-class association the magistrates swore-in special constables and prevented the town crier from announcing the meeting. Somers was pleased that the sensible and peaceable inhabitants of Stranraer had not been fooled by these crude tricks into thinking that he was an advocate of violence.[26] He was also opposed in Garlieston, where, the Chartists claimed, the Earl of Galloway had forbidden the use of his timber-yard for the meeting, which had been held on the open highway. One John Pollock began a vitriolic correspondence in the columns of the "Dumfries Times" regarding this meeting. He claimed that only the Earl's indulgence had allowed it to take place, cast aspersions on the intelligence of those who had attended, estimated that very few had in fact done so and abused the Chartists, claiming that "Reformers" were superior.[27] William McDowall[28] then put the Chartist point of view and courteously asked Pollock to clarify the meaning of the word "Reformer" and to articulate his criticism of the Chartists.[29] In another edition an anonymous contributor doubled Pollock's estimate of numbers.[30] Pollock's reply was pettish and unhelpful; he simply refused to discuss the matter further.[31]

The interesting point about this correspondence is the meticulous, even hair-splitting attention paid to the numbers and occupants of those present at the Garlieston meeting. It was fairly common for opponents of the Chartists to offer a low estimate, while the Chartists always painted a rosy picture; often it is difficult to tell which is wrong.

Magistrates in Dumfries tried to quieten the Chartists in July 1842; using the "meal mob" as an excuse, they decided to put down the large public meetings which were often held in Queensberry Square to disseminate political information and to read extracts from Chartist journals. As these meetings had always been peaceful affairs, the Chartists doubted the legality of the magistrates' proclamation; nevertheless they scrupulously suspended their meetings until they had investigated the question. Having decided that the law was on their side, they held a very large meeting on July 25th. The only interruption was by a drunken member of the Dumfriesshire constabulary force who elbowed his way through the crowd and

24. *Dumfries Times* 27/12/1841; 3/1/1842; 10/1/1842; 31/1/1842.
25. *Dumfries Times* 6/12/1841.
26. *Dumfries Times* 17/8/1842.
27. *Dumfries Times* 7/9/1842.
28. Who was soon to become secretary of the S.S.A. (see *infra.*)
29. *Dumfries Times* 21/9/1842.
30. *Dumfries Times* 28/9/1842.
31. *Dumfries Times* 19/10/1842

heckled the speakers. By an amusing irony, two Chartists made a citizen's arrest and handed the policeman into custody. The authorities, without offering a reason, ignored the original charge of obstructing a public meeting, and fined the policeman 5s. for being drunk and disorderly. The heavy-handed treatment once again had the opposite effect from that desired: the abortive attempt on the liberties of the citizens of Dumfries caused the ranks of the W.M.A. to be swelled by more than fifty new members in a fortnight.[32]

So were the Chartists of Dumfries violent? Certainly the rank-and-file were not averse to a bit of a punch-up on occasion, but the attitudes of the leaders are less certain. Somers, courting the middle classes, renounced violence. Wardrop was renowned for being a speaker who

> "unlike some demagogues of the time, always avoided the use of seditious language, never rounding a period with the words 'Peaceably if we may, forcibly if we must' . . . firmly repudiating an appeal to physical force, in the full assurance that 'freedom's battle' could be gained without resort to pike or gun".[33]

Nevertheless, the first national figure to speak in Dumfries, Abram Duncan, although usually a moderate, made veiled hints about violence: his talk of "blue bonnets coming over the border" went down well and probably ensured his election as the Convention delegate from Dumfries burgh.[34] It seems that he was sometimes carried away by the heady wine of oratory. Another, greater, national figure who spoke in Dumfries (twice) and was almost deified, was Feargus O'Connor. He could be all things to all men and may at times have talked violently to please a crowd, but in Dumfries he played the part of a moral-force Chartist, saying that he had been misrepresented and that he "would rather wear his fetters all his life than that one drop of human blood should be shed in the present struggle."[35] The "Dumfries Times" allowed that "the uncaged lion" was "not half so wild or so dangerous as he has been called."[36] Apparently the Dumfries Chartists had had doubts. O'Connor was greeted with a triumphal procession which paraded through the town with flags, banners and musical instruments. A queue formed at the Relief Church to hear the great man's speech, which lasted two hours and was rapturously received; before it, however, the chairman John Bell made the Rev. Mr Carson say grace. Dumfries Chartists were not irreligious, even if they did not as in many other places form a special Chartist church.

O'Connor was certainly a great favourite in Dumfries before Sturge's movement gained ascendancy, and at this meeting he was presented with a document of address from the Dumfries Chartists by William McDowall. The protestations of O'Connor and the local Chartists are slightly undermined by the fact that in the opinion of the above meeting the three great Chartists were O'Connor, Stephens and Oastler, while Frost, Williams and Jones were cheered. Stephens was the Methodist preacher who in 1838 told the people of Manchester that "a couple of matches and a bundle of straw dipped in pitch" would make a weapon against which all the bayonets and cannon of the government would be powerless[37]; Frost, Williams and Jones were

32. *Dumfries Times* 10/8/1842.
33. McDowall *Memorials of St. Michael's* p. 147.
34. Wright *Scottish Chartism* p. 40. Wilson, p. 68, says this election was rushed through in a single day, surreptitiously, and contrary to normal procedure.
35. *Dumfries Times* 8/11/1841.
36. ibid.
37. Engels, p. 256. With Oastler and O'Connor, Stephens formed a trio of fiery orators who, particularly in 1838-9, spoke very violently. Their sincerity is however open to question. See esp. Hovell, pp. 87-98.

the leaders of the abortive Newport rising, which was perhaps the most notable outbreak of violence to be connected with the Chartists.[38] The young republican Harney was not a moderate in his speech; nevertheless when he passed through Dumfries on his way south to stand trial at Warwick Assizes he took with him the good wishes of the local Chartists.[39]

There was probably a tension within the Dumfries Chartist group between, on the one hand, the peaceful "moral force" men who, being respectable property owners or aspirants to the middle class, preferred to keep their theorising abstract, and on the other hand the working-people who were interested in Chartism not so much for idealistic motives but for immediate concerns like unemployment and empty stomachs. Hence while the mob was ready to fight in the streets on the Queen's wedding day, and to riot when food prices became intolerably high, respectable Chartists like Andrew Wardrop (who, although he came to Dumfries as a framesmith in 1837, became a property-owner and a member of the Town Council before his death in 1869[40]) did their best to contain such outbreaks. The schism within the movement could not always be concealed from the public eye: when Sharman Crawford M.P., an ally of Sturge, called at Dumfries he spoke to the supporters of Somers' middle-class orientated South of Scotland Association. This had been formed, in response to the appearance of Sturge's C.S.U., in August 1842 after an heroic campaign by Somers in which he spoke to audiences in nearly every town and village between Annan and Stranraer, whipping up enthusiasm for his project from the huge crowds he drew. Often he would travel all week, stopping at a different place each night to propound his plan for a great association of all classes which would secure the reform of Parliament. Most audiences responded to the call by passing his resolutions "unanimously" (as sympathetic reporters usually wrote) and by forming a committee. Later Somers went north to Kilmarnock and Ayr, and south to Sturge's Birmingham Conference in December 1842. When Crawford addressed the S.S.A. he drew "a greater number of merchants and professional gentlemen than (was) usual"[41] at reform meetings, but he was heckled by "a few admirers of Mr Feargus O'Connor"[42] The same "sprinkling of physical-force gentry"[43] (i.e. Chartists not thoroughly amenable to restrained middle-class influenced reform) also caused a disturbance when Wardrop tried to propose a vote of thanks to Crawford. In fact O'Connor outlived Sturge in the hearts of the Dumfries Chartists: he returned in 1843 on his "Land Plan" Tour and succeeded in incorporating the W.M.A. in his National Charter Association.[44] There were even cheers for the French revolution in March 1848[45] — hardly the behaviour of bourgeois-influenced disciples of "moral force."

Despite the fragmentary nature of local Chartism and its dormant periods, the movement was a strong and significant body, particularly in the peak years 1839-42. Its greatest triumph was perhaps the presentation of Andrew Wardrop as a candidate

38. These three were frequently cheered at Chartist meetings throughout the land, more probably because they had become martyrs of a sort than because they had led a violent insurrection.
39. Wilson *The Chartist Movement in Scotland* p. 109.
40. For information on the life of Andrew Wardrop I am indebted to the late Mr Robert Wardrop of Dumfries, a descendant of the Chartist leader. See also the *Gallovidian* Magazine, winter 1905 and Autumn 1910.
41. *Dumfries Times* 12/10/1842. The middle class was beginning to bite.
42. ibid. O'Connor was virulently opposed to the C.S.U.; he considered it to be a middle-class trick to divert the energies of the Chartists and keep them under control. So did Engels. See Hovel!, p. 240 et. seq. and Engels p. 260.
43. ibid.
44. Wilson *The Chartist Movement in Scotland* p. 206.
45. ibid., p. 222.

for the parliamentary election of June 1841. He won at the hustings by a show of hands, but declined to go to the poll because, obviously, he could not hope to find favour with a sufficient number of the enfranchised citizens of Dumfries. Nevertheless he had caused the public to sit up and take notice of Chartism and had once again attracted the attention of the successful candidate, William Ewart, who was not entirely unsympathetic[46].

The Chartists were also most conscientious in attending nearly every public meeting that was held between 1839 and 1842 on the burning questions of Church patronage, Corn Law Repeal and the state of the nation generally; Wardrop with his denunciation and direct questioning was omnipresent. When Chartism slumbered in 1846 he turned his energies into pertinent questions about the abuse of public funds and the unsuitability of a high-ranking police-officer; he even published a pamphlet on these questions.[47] The South of Scotland Association like its parent the C.S.U. flared briefly into prominence and then disappeared, but Wardrop was still asking questions at the general election in August 1847.[48] In the same month, the Dumfries and Maxwelltown Co-operative Society began its long career, absorbing some of Wardrop's limitless energy as it did so.

The Dumfries Chartists did much that is unfortunately beyond the scope of this dissertation. Gradually the movement faded away, although the memory lingered on: Wardrop was still encouraging reformers in 1866 but as a government servant (he was then in the Post Office) he was forbidden to have anything further to do with agitations.[49] What he had done was not forgotten, however. Without him the Dumfries Chartist group would have been much less significant.

46. For 1841 election, see *Dumfries Times* 5/7/1841 and *Dumfries and Galloway Courier* 5/7/1841. Ewart and the Dumfries Chartists had exchanged letters when he was proposed as a prospective parliamentary candidate for Dumfries (see *Courier* 5/2/1840). Ewart was non-committal about the Charter, but respectfully offered his co-operation.
47. *Peeps Behind the Curtain*. Both of these problems were local.
48. See *Courier* 3/8/47 and *Dumfries and Galloway Standard*, 4/8/47. Wardrop does not seem to have stood for election in 1847, although he had stood previously in council elections.
49. *Gallovidian*, Winter 1905.

APPENDIX

Selected verses from Roger Quinn's poem:

"To the Scotch Representatives, During the Prorogation of Parliament, previous to the Presentation of the Chartist Monster Petition, 1839."

. . . . . .

v.5 Our Gasstown coofs are loudly crying
Out 'gainst sage Dan [1] for no daft flying:
Puir hirpling deevils mair like dying
O' broken heart,
Than in a national struggle trying
To act a part.

1. Daniel O'Connel, the Irish politician.

v.10 Ilk Lowrie[2] here sae gaunt and tall is,
A weaver's pittance now owre small is,
Tae reconcile sic side-clung bellies,
Wi' stenting ware,
I ferlie na though sic like fellows
Grip in a snare.

. . . . . .

v.11 Whan the petition is presented
And Gasstown heroes richt behint it,
Although yer hearts before ne'er dunted,
Wi' fear ye'll shake,
Sic figures gaunt before ye planted,
Will gar ye quake.

. . . . . .

v.12 Their meagre looks yer sauls will foun'er,
And trouth twill be nae ither won'er,
Ye'll trow they've crawled the mools frae un'er,
To seek redress;
To say them nay, ilk spark o' honour
Wad quit its place.

. . . . . .

v.13 War Scotia's bairns ranked in a row,
She cou'dna wale frae mang them a'
A squad mair fit to send awa
To London city,
For gin they'll no fricht into awe
They'll move to pity.

2. One of the weavers who did not understand Wardrop (see *Supra.*)

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MOTHS TAKEN AT EASTPARK FARM, CAERLAVEROCK, DUMFRIESSHIRE, From February 1975 to February 1977 Using a Rothamstead Light Trap — By L. T. Colley

The Rothamstead light trap runs each night throughout the year and uses a 200 Watt clear tungsten bulb. As the light source is only a tungsten bulb rather than a mercury vapour or ultra-violet light it only attracts moths from a small radius around the trap.

The moth trap was situated in the farm garden next to a hawthorn hedge. The surrounding farmland was mainly arable, intersected with hawthorn hedges, also the Wildfowl Trust created additional habitat with grass-covered screen banks and pools and have planted rushes, gorse, willows and other shrubs. Adjacent to the arable land is the large expanse of saltmarsh or merse. Occasional moths may also have strayed from the nearby Lochar Moss.

Sphingidae			
Laothoe populi	Poplar Hawk-moth		
Notodontidae			
Lophopteryx capucina	Coxcomb Prominent	*Phalera bucephala*	Buff Tip
Pterosoma palpina	Pale Prominent		
Lymantriidae			
Dasychira fascelina	Dark Tussock	*Euproctis similis*	Yellow Tail
Lasiocampidae			
Poecilocampa populi	December Moth	*Philudoria potatoria*	Drinker
Macrothylacia rubi	Fox Moth		
Drepanidae			
Cilix glaucata	Chinese Character		
Nolidae			
Celama confusalis	Least Black Arches		
Arctiidae			
Spilosoma lubricipeda	White Ermine	*Arctia Caja*	Garden Tiger
Spilosoma lutea	Buff Ermine	*Callimorpha jacobaeae*	Cinnabar
Diacrisia sannio	Clouded Buff	*Cybosia mesomella*	Four-Potted Footman
Noctuidae			
Agrostis exclamationis	Heart and Dart	*Apamea monoglypha*	Dark Arches
Agrostis ipsilon	Dark Sword-Grass	*Apamea secalis*	Common Rustic
Diarsia mendica	Ingrailed Clay	*Procus strigilis*	Marbled Minor
Diarsia rubi	Small Square Spot	*Procus versicolor*	Rufous Minor
Ochropleura plecta	Flame Shoulder	*Procus fusciuncula*	Middle Barred
Amanthes baja	Dotted clay	*Procus literosa*	Rosy Minor
Amanthes c-nigrum	Setaceous Hebrew Character	*Euplexia lucipara*	Small Angle Shades
Amanthes sextrigrapha	Six Striped Rustic	*Thalpophila matura*	Straw Underwing
Amanthes xanthographa	Small Square Spot	*Celaena leucostigma*	Crescent
Axylia putris	Flame	*Hydracea lucens*	Large Ear
Cerastis rubricosa	Red Chestnut	*Gortyna micacea*	Rosy Rustic
Noctua pronuba	Large Yellow Underwing	*Gortyna flauago*	Frosted Orange
Diataraxia oleracea	Bright Line Brown Eye	*Cryphia perla*	Marbled Beauty
Ceramica pisi	Broom Moth	*Apatele psi*	Grey Dagger
Hadena suasa	Dogs Tooth	*Cucollia umbratica*	Shark
Hadena thalassina	Pale Shouldered Brochade	*Aporophyla lutolenta*	Deep Brown Dart
Tholera popularis	Feathered Gothic	*Allophes oxyocanthae*	Green Brindled Crescent
Tholera cespitis	Hedge Rustic	*Cirrhia icterita*	Sallow
Cerapteryx graminis	Antler Moth	*Conistra vaccinii*	Chestnut Moth
Orthosia gothica	Hebrew Character	*Eustrotia uncula*	Silver Hook
Orthosia cruda	Small Quaker	*Episema caeruleocephala*	Figure of 8 Moth
Orthosia incerta	Clouded Drab	*Plusia chrysitis*	Burnished Brass
Orthosia gracilis	Powdered Quaker	*Plusia bractea*	Gold Spangle
Leucania pallens	Common Wainscot	*Plusia jota*	Plain Golden Y
Leucania impura	Smoke Wainscot	*Plusia pulchrina*	Beautiful Golden Y
Leucania lythargyria	Clay Wainscot	*Plusia gamma*	Silver Y

Leucania conigera	Brown-Line Bright Eye	*Unca trigemina*	Dark Spectacle
Brachionycha sphinx	Sprawler	*Uncula triplasia*	Spectacle
Rhizedra lutosa	Large Wainscot	*Rivula sericealis*	Straw Dot
Caradrina morpheus	Small Wainscot	*Hypena proroscidalis*	Snout
Geometridae			
Chiasmia clathrata	Latticed Heath	*Hydromena furcata*	July Highflyer
Ausophila aesenlaria	March Moth	*Epirrhoe alternata*	Common Carpet
Sterrha dimidiata	Single Dotted Wave	*Chesias legatella*	Streak
Xanthoroe ferrugata	Dark Barred Twin Spot Carpet	*Orthonama lignata*	Oblique Carpet
Xanthoroe designata	Flame	*Oporinia dilutata*	November Moth
Xanthoroe montonata	Silver Ground Carpet	*Operophtera bromata*	Winter Moth
Xanthoroe fluctuata	Garden Carpet	*Chloroclystis rectangulata*	Green Pug
Nycterosea obstipata	Gem	*Lomaspius marginata*	Clouded Border
Colostygia didymata	Twin Spot Carpet	*Theria rupicapraria*	Early Moth
Lyncometra occelata	Purple Bar	*Erannis marginaria*	Dotted Border
Egrophila badiata	Shoulder Stripe	*Erannis defoliaria*	Mottled Umber
Anticlea derivata	Streamer	*Selenia bilunaria*	Early Thorn
Aerizoma alchemillata	Small Rivulet	*Colotois pennaria*	Feathered Thorn
Penzoma flavofasciata	Sandy Carpet	*Crocallis elinguria*	Scalloped Oak
Ecliptopera silaceata	Small Phoenix	*Opisthographs luteolata*	Brimstone Moth
Lygris testata	Chevron	*Phigalia pilosaria*	Pale Brindled Beauty
Lygris pyraliata	Barred Straw	*Colostygia multistrigaria*	Mottled Grey
Cydaria fulvata	Barred Yellow	*Perizoma albulata*	Grass Rivulet
Dysstroma truncata	Common Marbled Carpet	*Eupithecia exiguata*	Mottled Pug
Dysstroma citrata	Dark Marbled Carpet		
Micros			
Udea ferraigais	Rusty Dot Pearl	*Nomophila noctuella*	Rush Veneer Pearl

A MESOLITHIC HEARTH AT REDKIRK POINT, GRETNA, ANNANDALE AND ESKDALE DISTRICT

by Lionel Masters, MA, FSA, FSAScot.

In the course of fieldwork during May 1976, Mr Trevor Langhorne noticed a small patch of discoloured sand, containing burnt pebbles and charcoal, on the foreshore at Redkirk Point at a height of about 5m AOD, and some 2.50km SW of Gretna, Annandale and Eskdale District (NG Ref. NY 30056514). Its situation in relationship to the local Holocene coastal deposits suggested that it represented human activity prior to the maximum of the Holocene marine transgression. The feature had already been subjected to marine erosion and, as it was likely to be completely washed away by the next high tide, it was investigated immediately after discovery (Langhorne and Masters, 1977, 27-28).

The feature (Fig. 1) proved to be a hearth constructed within a shallow hollow cut into clean grey sand. The surviving limits of the hollow, taken on the basis of sand discoloration, measured 1.03m in length and 0.65m in width. Erosion had already removed the NW edge of the hollow, as well as the overlying coastal deposits, but the maximum depth appeared to be about 0.25m. Around the SE edge of the hollow a thin layer of organic detritus, less than 5mm in thickness, was discernable. Within the hollow the sand had been discoloured by the fire, being grey/black in colour, and contained numerous small fragments of charcoal, some up to 20mm in length, and fragments of twigs. The total dry-weight of charcoal and twigs collected from the hollow amounted to 600g. A number of burnt sandstone pebbles, averaging 200mm in length, were arranged in a more-or-less semi-circular setting towards the bottom of the hollow. The charcoal and twigs were found mainly within and under this setting, but also sporadically throughout the hollow. Due to lack of time, the SE edge of the hollow was not excavated.

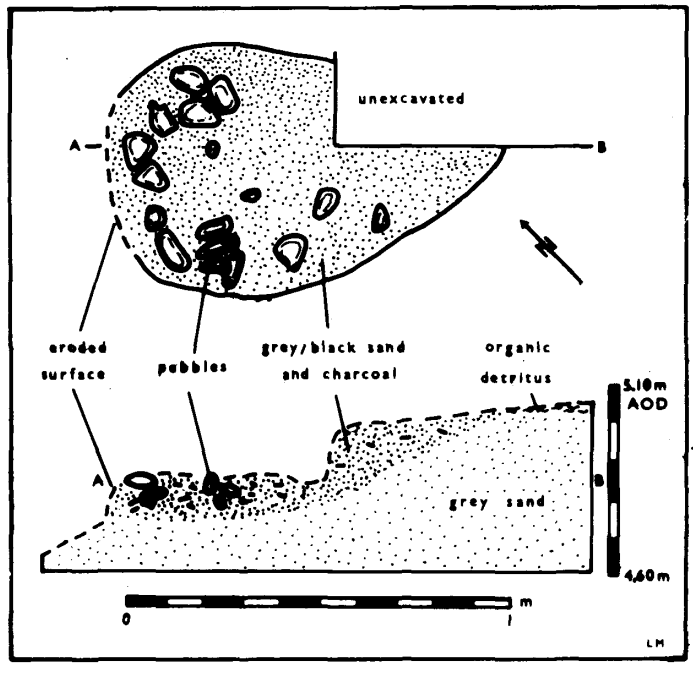

Fig. 1. Redkirk Point Mesolithic Hearth, Plan and Section

The collected contents of the hearth and samples taken from the layer of organic detritus were subsequently examined by Trevor Langhorne who, in a letter to Mr A. E. Truckell dated 13th October 1976, made *inter alia* the following comments:

"The sieving of the hearth contents yielded a large amount of charcoal along with a few twigs, and numerous reeds which probably grew through from above. The twigs were identified as being birch. The identification of charcoal is very difficult, those bits which could be identified were found to be either oak *(Quercus)* or elm *(Ulmus)*."

On the layer of organic detritus, Mr Langhorne reported that:

"The pollen density was low and much of the pollen was so badly corroded that identification was not possible."

The results of the pollen count are given in the following table:

Table 1

Tree Pollen		Shrubs		Herbs		Spores	
Betula	6	*Corylus*	7	*Cyperaceae*	9	*Sphagnum*	1
Pinus	7			*Ericales*	1?	*Filicales*	9
Ulmus	1			*Caryophyllaceae*	1		
Alnus	1			*Chenopodiaceae*	6		
Totals	15		7		17		10

Table 1: Pollen Counts from a Peaty Soil, Redkirk Point, 5.058m AOD

Commenting on the pollen, Mr Langhorne writes:

"The herb pollen indicates local conditions, *Cyperaceae* (sedge) indicating wetness, and *Chenopodiaceae* (Glass worts and Goosefoot) indicating salt marsh conditions nearby. The fern spores *(Filicales)* indicate wet woodlands."

Through the good offices of Mr Peter Woodman (Assistant Keeper, Ulster Museum) two radiocarbon dates were obtained on charcoal from the hearth. The uncorrected dates are 8000±65 BP (UB-2445) and 7935±110 BP (UB-2470).

Within a week of the discovery and excavation of the hearth, the Local Authority constructed new coastal protection barriers by covering the shore at Redkirk Point with large rocks, thus effectively preventing any further investigation of the environs of the hearth for some time to come.

Discussion

Redkirk Point is an area of particular interest in the elucidation of the history of post-glacial land and sea changes at the eastern end of the Solway Firth. These events have been the subject of a recent paper by Jardine (1980, 1-59), who includes in his discussion a record of a section exposed in a cliff at Redkirk Point (NG Ref. NY 30086511), only a short distance away from the hearth site (1980, 7-10). The thin layer of organic detritus preserved around the SE edge of the hearth can be equated with Jardine's "dark-brown to black organic detritus" and with Peat 2 of Bishop and Coope's (1977, 63-66) analysis of similar material in the same general area. Evidence as to the date of this layer is provided by a radiocarbon date of 8135±150 BP (Q-637) obtained from the stump of a tree located some 65m SE of the hearth. (Godwin and Willis, 1962, 59). The position of this layer within the local succession has been shown to pre-date the first deposition of grey laminated silt associated with the main post-glacial marine transgression. Jardine (1980, 10) considers that coastal marsh conditions may have prevailed at the easternmost end of the Solway during the maximum of the marine transgression, areas like Redkirk Point perhaps being subject to inundation only for short periods during flood tides.

Although erosion had already removed the superimposed layers of silt from above the hearth, the close correspondence between the radiocarbon dates from the hearth and the tree stump growing in the layer of organic detritus are strongly indicative of contemporaneity. This being so, the hearth was clearly in existence before the rise in sea level associated with the maximum of the marine transgression, an event which in any case has been shown to be diachronous along the northern shore of the Solway Firth (Jardine, 1975, 173-196).

The importance of coastal deposits and associated archaeological evidence in SW Scotland has recently been reviewed (Jardine and Morrison, 1976, 175-195). Certainly the evidence for human activity at Redkirk Point during the 7th millennium B.C. is considerably earlier than that at present documented for coastal Mesolithic sites in western Galloway, but is broadly contemporary with the earliest dated activity at such sites as Tentsmuir in Fife, and Lussa Wood on Jura. The sand dune location of the Redkirk Point hearth invites comparison with the coastal Mesolithic sites of Cumbria. It is, therefore, all the more unfortunate that the lack of any artefactual evidence from Redkirk Point, coupled with the dumping of rocks to form a coastal protection barrier (which precluded any subsequent investigation for structural evidence) must reduce the significance of the discovery to nothing more than an indication of human presence. Indeed, this is perhaps all it does represent, for the Redkirk Point hearth may have been no more than a camp fire lit by a group of Mesolithic folk travelling around the eastern end of the Solway Firth in the 7th millennium BC.

Acknowledgements

Particular thanks are due to Trevor Langhorne for his prompt reporting of the site and for undertaking the palaeobotanical work, and to Peter Woodman for obtaining the radiocarbon dates. The excavation of the hearth was undertaken by the writer, assisted by Messrs Cormack, Langhorne, McEwen and Truckell, on the evening of 12th May 1976, an evening which provided every variation in weather from brilliant sunshine to thunder, lightning and hailstones.

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Sir Hans Sloane, Founder of the British Museum — Legend and Lineage
William R. Sloan, M.D., F.R.C.S., F.R.C.O.G., 1981

To one who has read so many family histories this is something fresh and very attractive: no pedantry but a warm personal approach.

Unlike many family histories, Sir Hans Sloane, as the "famous" member, does not dominate the book: he gets attention but the traditions about his ancestry are looked at critically and without adulation.

The great bulk of the book, however, is taken up with what Dr. Sloan has been able to find out about the Sloane antecedents in South Scotland — especially the Sloanes of Dumfries and the Garroch (near Drungans ICI plant) in the sixteenth and early seventeenth centuries — and, at more length, on the Sloanes in Ulster, where his branch of the family has lived since the early seventeenth century — plus a good deal on Sloans across the Atlantic, where one Alfred Sloan became President of General Motors.

The book's 134 pages (plus many more of appendices and genealogical tables) are crammed with the result of many years of research, all expressed almost conversationally, as if one were chatting with Dr. Sloan himself — whose pleasant, enthusiastic personality much impressed the writer when the good Doctor — a retired medical missionary with many years in the Far East — was in Dumfries doing his research.

A must for Sloanes or Sloans — and a very pleasant read for anyone!

The book is published privately by Dr. W. R. Sloan at his home address, 31 Sheridan Drive, Helen's Bay, Co. Down, N. Ireland, and retails at £10.

A.E.T.

History of Luguen of Strathearn and his Children — Yselda of Abercairney, Countess of Strathearn, Ricardus of Kinbuck, Knight Dunblane, and Galfridus of Gasg. Trinity Gasg, Strathearn, Perthshire, Scotland, Robert Gass.

A formidable title, and not one to suggest links with Dumfriesshire! However, though the title is accurate, the family dealt with is that of Gask or Gass, centred in the area between Ruthwell and Dornock parishes since the 1400's — since it came down, as retainers to the Murrays of Cockpool — a family commemorated by Gasstown, named after Provost Joseph Gass of Dumfries.

I first corresponded with Robert Gass nigh thirty years ago and was glad to meet him in the flesh in 1970: born in Burntisland, he has spent most of his life in South Africa.

The late Dr. R. C. Reid of Cleughbrae, Alan Cunningham of Ecclefechan, Provost Bell of Dumfries, and the writer were all involved in the early stages of Bob Gass's research (he suggests in his introductory section that Dr. Reid and I worked for a fee — his memory betrays him — all of us did it for love, not money!) and Alan Cunningham and I eventually put him on to Robert Shannon of Eastriggs who — as Mr Gass gladly acknowledges and quotes at length — produced the vast bulk of the material used in this book.

While most of the book runs from the 12th to the early 19th century, the list of subscribers at the end, set down by countries, and covering five pages, shows how widely spread around the world the name Gass now is.

Made up as it is to a large degree of extracts sent in by correspondents the book is perhaps a little scrappy — Mr Gass in fact on the title page states simply that the book was 'assembled' by him — but this adds to its intimacy and its 'punch' — for it throughout bears the strong and amiable personality of Robert Gass himself, making it one of the more attractive works of family history the writer has read for a long time.

Its 228 pages can be consulted at the Museum or the Library; and Mr Gass indicates that a few spare copies are still available if one writes to — Robert Gass, F.S.A.Scot., 64 Mill Street, Paarl, South Africa.

A.E.T.

The Prehistoric Rock Art of Galloway and the Isle of Man — Ronald W. B. Morris (Blandford Press), 1979, hardback and paperback.

Mr Morris has followed up his first book the Prehistoric Rock Art of Argyll, with his splendidly complete and detailed study of the cup-and-ring markings of Galloway.

Of all types of archaeological research, cup-and-ring marks are one of the most difficult, because being on natural rock faces, often horizontal, some are always being overgrown by grass while others are bared by the feet of cattle or by changes in the land use: so what Mr Morris records is not only what was noted by the Ancient Monuments Inventory in 1912, and other references before and after, that time, but his own meticulous and painstaking yard-by-yard search of our wide and varied countryside over a good part of the sixties and early seventies: the writer was privileged to help him to some small degree in the earlier stages of his research.

The end result cannot be too highly commended: the standard of accuracy in the recording of sites, in the description of each marking, and in the drawings and tracings is phenomenally high — only one very minor slip appears on page 99, where what is recorded as Gal. 51, a cup mark, built into Elrig House, has already been published, eg. in the D.O.E. Guide to Whithorn and Kirkmadrine as a fragment of an early Christian cross-head of Whithorn type, which is the likelier interpretation but this, in 112 descriptions is nothing to cavil about! He in fact includes another early Christian stone at Craignarget as Gal. 43., but in this case knowingly.

There are many distribution maps of the concentrations of marks in the Machars of Wigtownshire, in the Creetown-Gatehouse area, and East of Kirkcudbright, divided according to the type of carving, and whether on native rock, large heavy boulders, small portable stones or on cist slabs, and showing the direction of slope of the carvings, whether on level surfaces, and so on — a wealth of information presented in small bulk.

Very precise locations are given, and cases where special permission is necessary to visit are mentioned. The purpose served by cup-and-ring markings has long been debated and Mr Morris records no fewer than a hundred and four explanations, from many sources, 'pointed' on a scale of 10 as to probability — for example the possibility that they have something to do with the utilisation of surface copper ores or gold by Bronze Age people (all but one of the Galloway examples being within 12 kilometres of places where copper has been worked, or 1 mile from streams where gold has been panned) is given 8 points on this scale.

The writer knows many of these cup-and-ring marks, and knows too how quickly they can weather away once exposed, so that many are blurred and incomplete: Mr Morris quotes many examples where a pattern drawn or photographed fifty, sixty or eighty years ago is now hardly discernible, and stresses the importance of the absolutely fresh examples which from time to time are revealed by agricultural operations — as at Broughton Mains — being given some form of protection.

One point noted — as with many Bronze Age cairns and burials — is that a great many of the sites are in sight of the sea — one reason for feeling that the majority probably fall within the Bronze Age.

The much smaller section (6 examples) on the Isle of Man, so long linked culturally with Galloway shows equal care in research and presentation.

For anyone with an interest in the remoter past of our area this book is a necessity.

A.E.T.

The Wigtownshire Hearth Tax Collection Lists (Compiled by William ffullartoun)
Transcribed and Annotated by H. C. Jones; v, 95pp.

This is a work of particular interest; the author not only gives us the Hearth Tax lists, which makes a partial census of Wigtownshire in 1691, but compares the information given with the Parish Lists of 1684, identifying many people and places appearing in both and putting us much nearer a real census of Wigtownshire in the late 17th century — a volume of information greater than that for any other area of the South-West relating to the district with by far the greatest number of surnames — and the most "Gaelic".

Much can be deduced from the distribution of people, and of specific surnames, geographically about the Shire, and the density of population in different types of landscape: especially do we have a record of the now almost totally deserted moorlands of the North of the Shire— where dwelt Andrew Symson's Moormen with their many distinctive customs — for it is a lucky accident that his "Large Description of Galloway" dates also to 1684 and deals in most detail with Wigtownshire, where he was minister of Kirkinner, during the Episcopal interlude of Covenanting times.

Copies available from Colin Jones, P.O. Box 16, Gembrook, 3783, Victoria, Australia. Price including postage, £5.00. (Society Members £4.50).

Part 1 — William Jardine Papers — Natural History 7 — February 1981 — Information Series. Manuscripts in the Royal Scottish Museum, Edinburgh.

This booklet, by Joy Pitman, gives a most attractive picture of Dumfriesshire's most noted natural historian and first President of our Society, following his long career as a naturalist and populariser, giving his friends and first associates in the scientific world.

The fine collection of Jardine papers in the Royal Scottish Museum must obviously form the basis of any full life of this attractive and vigorous Dumfriesshire laird, whose character comes out clearly in his Presidential Address to our Society — one of the best in the long series — an address notable for hard-hitting views — including his quoting, with evident approval, a writer who holds that Negroes are not men, but brute beasts without souls!

The booklet can be obtained free, if available, from the Librarian of the Royal Scottish Museum.

A.E.T.

PROCEEDINGS 1980-81

10th October, 1980

The Annual General Meeting was held in the Education Offices, 30 Edinburgh Road, Dumfries. The President Mr Alex Anderson was in the Chair. The Speaker was the former President Mr Alex Robertson and his address was entitled 'Aegean Atlantis'. The earliest mention of Atlantis, by Plato in 360 B.C., said that violent floods and earthquakes had destroyed it in a day. This evidence suggested that Crete was its location, and 1500 B.C. the date. Around that time there was a gigantic earthquake in the Island of Thera, 65 miles North of Crete. Thera itself had been changed from one island into an island cluster, covered in white volcanic ash to a depth of 65 feet. When this was quarried to construct the Suez Canal, the remains of a town was found, containing some remarkable frescos and pottery. Crete too was affected by the falling ash, which probably destroyed the agricultural system, and perhaps also the Minoan Navy. The great capital city of Knossos was also devasted, but was re-established before its final destruction, possibly by the Mycenaeans, about a century later. Mr Robertson's talk was well illustrated with slides of the four great Minoan palaces, and the excavation at Thera.

24th October, 1980

The Speaker, Mr Downs-Rose spoke on the 'Social and Economic Aspects of Wanlockhead'. The first recorded settlement at Wanlockhead was in the early 17th Century when George Bowes built 22 houses. Bowes was looking for gold, but not with sufficient success, for the settlement was abandoned until Sir John Stansfield began lead mining operations in 1675. A pictorial map, of 1744, showed that 'Long Row' the oldest street in the village, was already built. There were at that time 350 people employed in the mines, and perhaps a total population in the village of 800. In the 19th Century there were periods of boom and slump, depending on the demand for lead. In the middle of the century 100 miners emigrated to California. Nevertheless, the population did not decline seriously until the present century. The Pickmen were normally paid by contract — at so much per fathom of rock cut. They worked in teams of six to eight. Should one of them die, his widow would be paid a proportion of the earnings of an apprentice. Then, in the late 1860s, a new system was introduced whereby a deduction was made, for widows and dependents, from the wages of all the employees. Recreation included fishing, curling and reading. The Curling Club was reckoned among the best in Scotland, and won many local trophies. The Library was opened in 1756, and had a continuous existence until it was taken over by the County.

7th November, 1980

The Speaker, Miss Lisbeth Thoms, Field Officer for Dundee Museum gave an illustrated talk on 'Medieval Scottish Pottery'. One of the great problems was dating, for although there was an abundance of medieval jugs and cooking pot fragments to be seen, there were only two known kiln sites — at Culston (near Haddington) and Stenhouse (near Falkirk). Furthermore, most pottery was locally made, so that Dumfries pottery from 1200 might well resemble say, Lanark Pottery from 1250. In South East Scotland, from the Tay to the Borders, the characteristic pottery was whitish and gritty (because of the amount of quartz in the clay). Further North, excavations in Aberdeen, for example, showed a much redder colour, but the potters had attempted to put a white covering, perhaps in imitation of the Southern ware. The use of the potter's wheel came late to Scotland, along with Normanisation, around 1100. By 1200 there was apparently a flourishing industry in Aberdeen, and presumably in many other areas. As well as local pottery certain amounts of Continental and English (Scarborough) pottery had been imported, and where these were found in conjunction with local ware a dating sequence might be built up.

21st November, 1980

Mr Michael Stenhouse, a member of the Chemistry Department of Glasgow University spoke on the 'Process of Radio Carbon Dating'. This relies on the presence in the atmosphere of the radio isotope Carbon 14. Its presence was confirmed by the late Willard Libby who received a Nobel Prize in 1960 for his pioneer work in developing the dating technique. Carbon 14 is ingested by living organisms through the biological carbon cycle. After death, the intake ceases, and the amount present at that time decays at a known rate measured by the length of the half life, which is 5730 years. The ability to use this knowledge depends on the assumption that the quantity of Carbon 14 in the atmosphere is constant. The dating process measures the level of the residue in the article being tested. Sampling revealed discrepancies between the known age of objects and the calculated age, demonstrating that the original assumption was

incorrect. With the science of Dendrochronology, using samples of Bristlecone Pine, a correction factor was derived. A confident prediction of age can now be made with a standard deviation of 60 years, which allows for what is known as the 'wiggle effect' whereby two different dates might have the same Carbon 14 reading. The Glasgow Laboratory was established in 1967, mainly to serve Scottish Archaeological Research. One area of investigation was the Mote of Mark where a 6th Century date had been expected, but a 5th Century date given suggesting that the site was earlier than equivalent discoveries in England.

5th December, 1980 (Members' Night)

The first Speaker, Mr W. Ogilvie gave a talk about birds he had seen when he and his wife were the teacher, missionary and nurse in the Island of Fetlar, between 1964 and 1967. In October, 1964 he saw from the School window a fantastic fall of thrushes. The field outside was completely covered with, what he estimated to be, 35,000 thrushes, which had apparently been caused by freak winds. In 1967 a pair of snowy owls started to breed in Fetlar. Mr Ogilvie was warned that an English collector was willing to pay £1,000 for one of the eggs, but a vigilant watch was kept, and at least 5 eggs were hatched. The pair continued to breed until 1975, but there has been no nesting since.

Mr Cormack gave an illustrated lecture on an excavation of a corn drying kiln at Port William, a report of which is included in this volume.

Dr Harper then spoke on the 'life of Sir Andrew Halliday', the Dumfriesshire Doctor who was for many years personal physician to King William IV. Halliday's chief interest lay in the treatment of lunatics, and he was responsible for a number of reports on conditions in asylums, and also for the gradual liberalising of public opinion towards the insane, who, he insisted should be regarded as invalids. He was closely associated with the foundation of the Crichton Royal.

9th January, 1981

The Speaker, Mr Stuart Martin, a past President, gave an illustrated talk on 'Alien Plants in Dumfriesshire'. The plants were now growing wild but were 'Alien', that is to say they had been introduced since neolithic times, many deliberately. Bishop Weed, for example, was prized for its medical value in the Middle Ages. The Opium Poppy was valued for its oily seeds. Alsike Clover was widely sown to improve pasture for livestock. Fairy Foxgloves and Dusky Cranesbill were probably originally garden plants, and in an age when paper was expensive Monks' Rhubarb leaves were used to wrap the monastic butter. Chrysanthemum Parthenium had gone the full circle — a medieval cure for fevers (as its popular name of Feverfew indicates), it became simply a wild flower, but is now enthusiastically recommended by those who regard Feverfew sandwiches as a cure for migraine. Other plants have been introduced by accident. Thanet Cress came with the straw which filled the beds of fever stricken invalids who were brought back from the Walcheren Expedition of 1809. Mimulus guttatus (Monkey flower) and Canadian Pondweed could be regarded as stowaways on trans-Atlantic ships. An infertile hybrid of saltmarsh grasses, one American and one British, eventually produced a fertile derivative — Spartina Anglica, which is leading the fight against the encroaching Solway at Powfoot.

23rd January, 1981

An interesting talk on Butterflies and Moths was given by Mr D. J. Clarke of Tullie House Museum, Carlisle. He began by looking at the differences between butterflies, moths, and other insects. For example, butterflies and moths never had jaws, but sucked up nectar or other juices with a long proboscis. Their wings had a dense covering of tiny scales which made them colourful and opaque. There was however, no single rule defining which was a butterfly, and which a moth. The former tended to fly by day resting with open wings, while the latter flew by night and closed theirs on alighting. The antennae of butterflies usually had club shaped endings, while those of moths tapered to a point. Butterflies nearly always found their mates by sight, moths by scent. Moths also tended to have larger bodies, but to each of these rules an exception could be found. We were taken, by slides through the life cycle of these insects from their mating to the egg, then through various stages of larvae until the adult butterfly or moth appeared. A selection of the 2,000 British moths and 70 butterflies was shown. The Large Blue Butterfly was mentioned as now considered to be extinct in this Country, although efforts were being made to re-introduce it. Other butterflies had almost disappeared due to spraying or reduction of normal habitat. Mr Clarke laid particular emphasis on the various protective devices used. A number of caterpillars

were frightening to look at, others matched their backgrounds or had hairs on them making them unpalatable. The Emperor Moth caterpillar is green with pink spots like heather coming into bloom. This deception was repeated in the butterflies and moths, some of which were difficult to see against their chosen resting places. The Hornet Clearwing imitated the appearance of a wasp. The Burnet moths were unpleasant to taste. The wings of a number of butterflies were marked with eye-like patterns, which distracted birds from pecking at the body, where more harm could be done. The Knotgrass Moth was so hairy that the Cuckoo was the only bird which would attack it. Nature had used many devices to keep predators away.

6th February, 1981

Mr Jim Young, one of our Members, gave an illustrated talk on the 'People and Wildlife of India and Nepal'. Starting at Delhi, we were shown slides of many exotic birds, such as the Purple Sun Bird, wild peacocks and cranes, also various parrakeets, kingfishers and woodpeckers. Many of our local birds could be found there, but all appeared much tamer. For instance, he was able to walk right up to a Redshank, which seemed to pose for its photograph. Mr Young also showed a number of slides of social interest. There were begging children, women carrying heavy stones on a building site, immaculately dressed young ladies from a girls school in Delhi, clothed in the old Academy colours of Maroon and white. We saw Ox-carts with wooden wheels, and the equivalent of the British coal-merchant, selling quantities of baked cow dung for fuel. Special slippers had to be put on to tour the Taj Mahal. There was a flight over Mount Everest to see the summit, and a bumpy ride by 'elephant taxi' to a Katmandu hotel. Cows and other animals roamed the streets happily.

20th February, 1981

Miss Naomi Tarrant, Curator of European Costume and Textiles at the Royal Scottish Museum, spoke on 'The Shambellie Dress Collection'. This had been started in 1946 by Mr Stewart to assist him in illustrating a book set in the 1840's. The Collection grew so large as a result of gifts and purchases, that in 1976 Mr Stewart decided to hand it to the Royal Scottish Museum. Shambellie House, which he inherited in 1960, has been made available for storage and display. Miss Tarrant used colour slides to show children's clothes and lady's dresses, spanning the last two centuries, and including some from other countries, such as Greek folk costume and Chinese robes. She described many in detail, revealing her enthusiasm and knowledge of the variety of designs and different fabrics used, mainly satin, muslin, silk, wool and cotton. Also shown were costume jewellery, combs, pins, belts and shoe buckles. Shambellie House was built in the middle 1800's for William Stewart, the architect being David Bryce, known for his design of Fettes College and the Royal Infirmary, Edinburgh. The cost of the house, £3,000, exceeded the original estimate, leading to an acrimonious correspondence, and the eventual replacement of Bryce by Barbour, a Dumfries architect and antiquarian. The collection should be on view to the public in 1982, many of the items being displayed on life-like fibreglass figures.

6th March, 1981

Mr Bill Brydson gave a talk on the History of Terregles. The Parish name was believed to be Welsh (*tref yr eglwys*) meaning the place of the church, and a Welsh derivation was accepted also for Cullochan, originally Caer-lochan, one of three fortified sites in the parish. Another fort, probably earlier was on Beacon Hill, while a medieval motte had been built at Chapel Knowe. According to his grandfather, stone from the chapel had been used to build the farm steading at Mainshead. Near Chapel Knowe was the Lady Well from which he remembered fetching water in his boyhood at Bowhouse. The barony of Terregles was established by a charter to the Herries family in 1365. At that time there were two roads, one following, more or less, the present route from Dumfries, the other from Newbridge to the Glen. In 1550 the barony passed, by marriage into the hands of the Maxwell family. Until the Reformation much of the land belonged to Lincluden College (hence names like Friars Island). The Maxwells continued loyalty to the old faith did not prevent them from seizing the former church land. It was about this time that the famous Terregles Quair (or Quire) was built. In recent years it has become in urgent need of repair, but no-one wishes to take the responsibility. Mr Brydson touched on many other aspects of the Parish, it's legends and history.

20th March, 1981

Our Speaker at this Special Extra Meeting was Dr Ronald Cant, President of the Society of Antiquaries of Scotland, who were celebrating the 200th anniversary of its foundation. The founder was the Earl of Buchan, a radical politician and one of the few who supported the Americans in the War of Independence. On 14th November, 1780 he addressed an invited audience of 87 people on the need to form an organisation to ensure that scholars' work on Scottish History was not lost. The first official meeting was in January, 1781 — the secretary being Mr William Smellie, who had started the Encyclopaedia Brittanica ten years before. Buchan himself refused to be president, standing down in favour of the Earl of Bute. Buchan was also a notable agricultural improver of his Estate at Kirkhill, near Broxburn. He bought Dryburgh Abbey, where he undertook restoration work. In his later years he became highly eccentric.

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