

# Rural settlement in Grampian Region: approaches and sources

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## INTRODUCTION

There have been several approaches in recent years to the problems of recording and assessing the field evidence for Scottish rural settlement which still survives today from many periods of the past. In this work the methods of selecting a fruitful study area are of crucial importance. Scholars studying the more recent past have emphasised the value of locating areas for which the surviving documentary sources are rich (eg Parry 1975, 24; Morrison 1980, 35) in order to illuminate the 'general processes of settlement history irrespective of place' (Dodgshon 1980, 46) while Fairhurst has called consistently for detailed regional studies of the morphological elements of later settlements (1967, 143; 1968, 165). Most of the recent work carried out on behalf of the state archaeological bodies on rural settlement has had a different emphasis, being largely concerned with area-specific surveys of differing sizes and time-scales.

The Ancient Monuments Branch of the Scottish Development Department has commissioned intensive surveys of areas under catastrophic threat from forestry (eg *DES* 1976, 23–4; 1977, 3, 28–9; 1978, 32) whose remit has generally been to identify and record all surviving features of archaeological potential with a view to establishing priorities for preservation or excavation (Mercer 1980; Mercer & Howell 1980, 1). The methods developed depend on the availability of a sizeable pool of labour and are best applied over a short period to a unitary block of country. The work of the Royal Commission on the Ancient and Historical Monuments of Scotland is not threat-determined and covers, with considerable resources, a larger area on a different time-scale. All available sources of information are utilised in preliminary research while intensive site-specific field work is intended to lead to definitive descriptions (Steer *nd*, 3) which are published in the well-known Inventories (eg *RCAMS* 1980). The Society of Antiquaries of Scotland's Archaeological Field Survey, which from 1977 to 1981 was funded by the Scottish Development Department and attached to the Royal Commission, aimed to survey selected areas rapidly and to compile and publish lists of monuments swiftly (Archaeol Field Survey *SAS* 1978). While the work of the three Field Surveyors has led to many new discoveries – for example 23% of all the sites listed in the Upper Eskdale list are newly discovered medieval and post medieval sites (Archaeol Field Survey *SAS* 1980, 3, 20–5) – their labours are indebted, as are those of all Scottish field archaeologists, to the site index cards produced by the Ordnance Survey Archaeology Division.

These cards formed the basis for the Sites and Monuments Record established between 1975 and 1977 by Grampian Regional Council. Development of the Record of this archaeologically under-prospected region relies on continuing field surveys for which the limited resources

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available demand the definition of a series of priorities. (This problem, of verifying and expanding field data, which faces most SMRs many of which are better endowed than Grampian's, was noted but not faced in the *Survey of Surveys* (Taylor & Aberg 1979, 3-4).) The following paper represents, in the context outlined above, an attempt to refine a method of selecting the most productive areas for survey in the southern and eastern sectors of the Grampian Region.

Its starting point was the impression that features of early settlement survived best in areas which became wooded (or otherwise unavailable for agriculture) in the late 18th century and thus were preserved from the destructive agricultural practices of the Improving Movement 'so drastic and widespread were (whose) changes . . . that few signs of previous settlements and land use systems are visible today' (Kay 1962, 100). This model was based to a large extent on the c 180 hectares of Bellmuir on the S facing slope of the river Ythan (NGR NJ 870 365) where the Ordnance Survey Archaeology Division recorded an impressive sequence of burial cairns, hut circles and stone clearance heaps, and rig and furrow (OS cards Nos NJ 83 NE 32-36, 40) on land which had been wooded during the 19th century and is currently used for rough grazing (LUC categories 4 and 5).

It must be emphasised that this study does not concern itself primarily with furthering our knowledge of the Improving Movement, but rather utilises the already rich literature on Scottish rural settlement (eg Caird 1964; 1980; Gailey 1962; Kay 1962; Parry & Slater 1980; Smout & Fenton 1965; Turnock 1977; Whittington 1973; 1975) to aid the recognition of surviving field systems and settlement. Indeed Parry's work on the phases of abandonment of upland settlement in the Lamermuir (1976a; 1976b) is of great potential assistance in establishing a chronology and has important implications for work in other upland areas, which will be considered later in this paper.

### PROJECT SUMMARY

A period of approximately 20 man weeks in the late summer and autumn of 1980 was spent by the present authors in combining cartographic, photographic and field survey data in an attempt to identify areas which had survived the impact of the agricultural improvers.

### CARTOGRAPHIC SOURCES

An attempt was made to correlate over time land use and settlement information from a variety of maps. In addition land use capability mapping gave in two areas indications of present cultivation limits, while place name evidence provided some indication of the time of abandonment of settlement.

Timothy Pont, *Buqhan from Ythan River to Duverne* 1581-96 (Cash 1907, 579 No 10). This early map shows the NE knuckle of Scotland from the mouth of the Ythan to Banff at a scale varying from 1 in to 1½ miles to 1 in to 3 miles.

Robert Gordon, *Aberdeen, Banf, Murrey &c to Invernes* 1640 (Cash 1907, 586 no 25). A detailed, although small scale (1 in to 6 miles) early map of the whole NE of Scotland.

General William Roy, *Military Survey of Scotland* 1749-1751 (Skelton 1967, 7; Roy Scot Geog Soc 1973, 103-12). A detailed study was made of the maps of General Roy by transcribing at the same scale all the land use and settlement information for the whole Region. Rivers, areas of cultivation, marsh, rough pasture, enclosed fields, woodland, settlements and roads were all re-drawn, but topographic information was omitted, in re-creating Roy's 'historic landscape transect' (Skelton 1967, 5). The value of the *Military Survey* as a source has been admirably summarised by Parry:

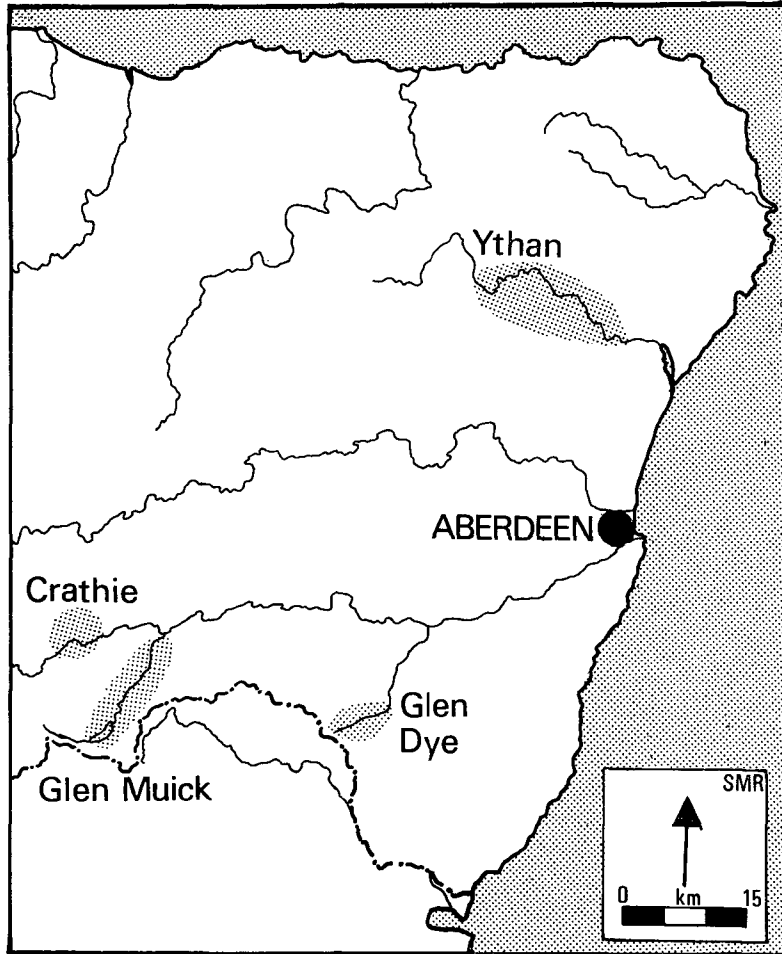


FIG 1 Location of survey areas selected from cartographic analysis

In SE Scotland a comparison of the *Survey* with other county maps and estate documents revealed only 35 farmsteads omitted in error, these amounting to less than 5% of the total then in existence. In addition there was close correspondence between the location of aerially mapped abandoned farmland and the cultivation symbols of the *Military Survey*. Thus the cultivation limits marked on the *Military Survey* apparently reflect with a reasonable accuracy the cultivation limits of the mid-18th century (1980, 181).

while Coull has recently emphasised the accuracy of the drainage and settlement pattern (1980).

James Robertson, *Counties of Aberdeen, Banff and Kincardine* 1822 (Roy Scot Geog Soc 1973, 122). This map depicts with great clarity, roads, settlements, and woodland (within and without estate policies) at a scale of 1 in to the mile. This land use and settlement information was compared with the *Military Survey* in an attempt to establish the continuity or discontinuity of information on locations throughout the three former counties.

*Map of the Estate of Glenmuick and Pananich belonging to Lieut Colonel Farquharson of*

*Invercauld* 1868 (printed by W & A K Johnston, Edinburgh) (Aberdeen University, Dept of Geography Folio No H392). The drainage pattern, woods and settlements in Glen Muick and the Crathie area are shown at a scale of 1 in to the mile.

*OS 6 inches to the mile 1st edition of Aberdeenshire* (1871–3 principally, 1871–1901/2) and the *2nd edition* (1902) were used in a similar manner to Robertson's map.

The *Military Survey*, Robertson's Map and the early OS editions were valuable in providing complete coverage of much of the Region, while their chronological spacing was sufficient to reflect significant landscape change.

*Land Use Capability Maps* (1976). The relevant coverage of the most recent LUC maps only extended to the Ythan and Glen Dye areas. These maps were used to define current marginal land.

### PHOTOGRAPHIC SOURCES

*Low level aerial photographs*. Regular aerial survey in the Region by Aberdeen Archaeological Surveys (*DES* 1977, 19; 1978, 10–11; 1979, 12; 1980, 12; *Aerial Archaeol*, 2 (1978), 81–2) had, prior to 1980, identified certain sites where traces of early cultivation survived. These sites and their surrounding areas had not however been the subject of systematic aerial surveys. Detailed low level photographs, taken in differing lighting and vegetational conditions, formed an important part of the subsequent recording of the areas and site complexes discovered during this project. 1:11000 *vertical stereo aerial photographs*, taken in 1976–7 and held by Grampian Regional Council, were used principally to confirm the location and survival of features identified from the cartographic sources and the low level flying. As most of the prints had been taken during the summer, natural vegetation hindered clear identification in some instances. However it was possible to identify areas of rig and furrow and stone structures by examining the photographs through a stereoscope.

### SELECTION OF AREAS

Four areas were chosen (fig 1) for further research and limited field examination on the basis of information collected in the process of comparing the maps. The early maps were used both on their own (to identify areas, previously cultivated and settled, which apparently dropped out of agricultural use in the late 18th and 19th centuries) and in conjunction with the aerial photographs (to expand the area of search from the initial, often site-specific, aerial photograph lead-in). While this latter process, in an idealised format, ran from the individual low level photograph to the maps, where the possibility of further features could be confirmed, and on to the vertical stereo pairs which would attest the survival or otherwise of whole areas or rural settlement, these stages were often in practice conflated. The sample areas selected were the valley of the River Ythan between Fyvie and Ellon, the lower reaches of the Crathie Burn immediately N of its confluence with the River Dee between Braemar and Ballater, Glen Muick from Loch Muick to Ballater, and upper Glen Dye, running W from the B974, 8 miles S of Banchory.

### FIELD WORK

The aims of the field visits were to confirm the interpretation of the features identified in the map and photograph searches, to complete Sites and Monuments Record cards, and to assess the complexity of the surviving remains. This last process was based on indications of variety and phasing in the structures and features. Features confirmed in this work included hut circles,

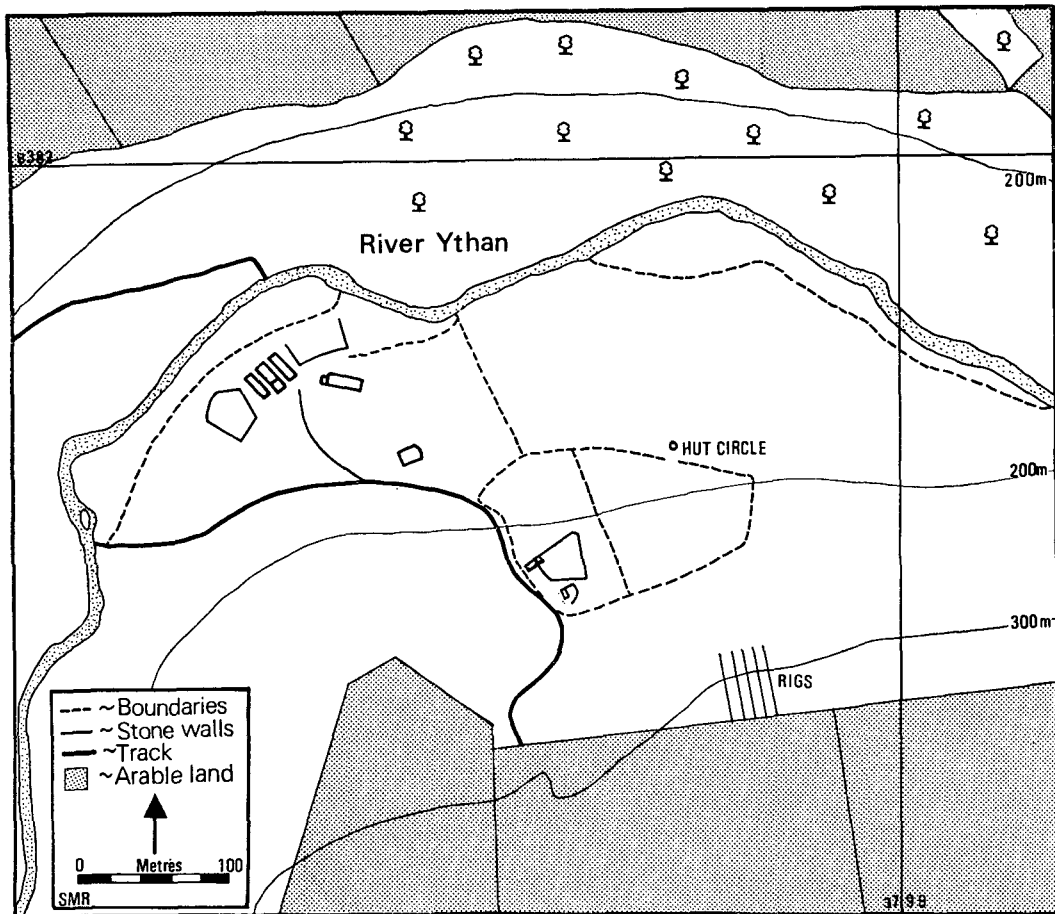


FIG 2 Settlement traces on the Ythan at Doolie Bridge (4). Based on OS map; Crown copyright reserved

stone clearance heaps, lynchets, rig and furrow cultivation, spade ridges, field dykes, sunken tracks, long houses of various types, corn-drying kilns and limekilns. The information entered on the record cards included form, condition, shape, dimensions, relief, aspect and land use, while in addition record photographs were taken.

Detailed interpretive plans were not produced at this stage of research. Rather it was possible to prepare some general site plans economically using details from the 1:2500 scale OS maps, if published, in conjunction with the various aerial photographs available (eg figs 2, 3). In the areas studied a high proportion of the turf and stone boundaries and stone structures had been surveyed in, even although they relate to land use patterns of previous centuries for which no antiquity record had been made. The inclusion of such features is left to the discretion of the individual surveyor (P Adams, pers comm).

#### GAZETTEER

The following gazetteer lists the principal sites identified in the survey of the four sample areas. Entries are arranged by sample area, and within each area by grid reference.

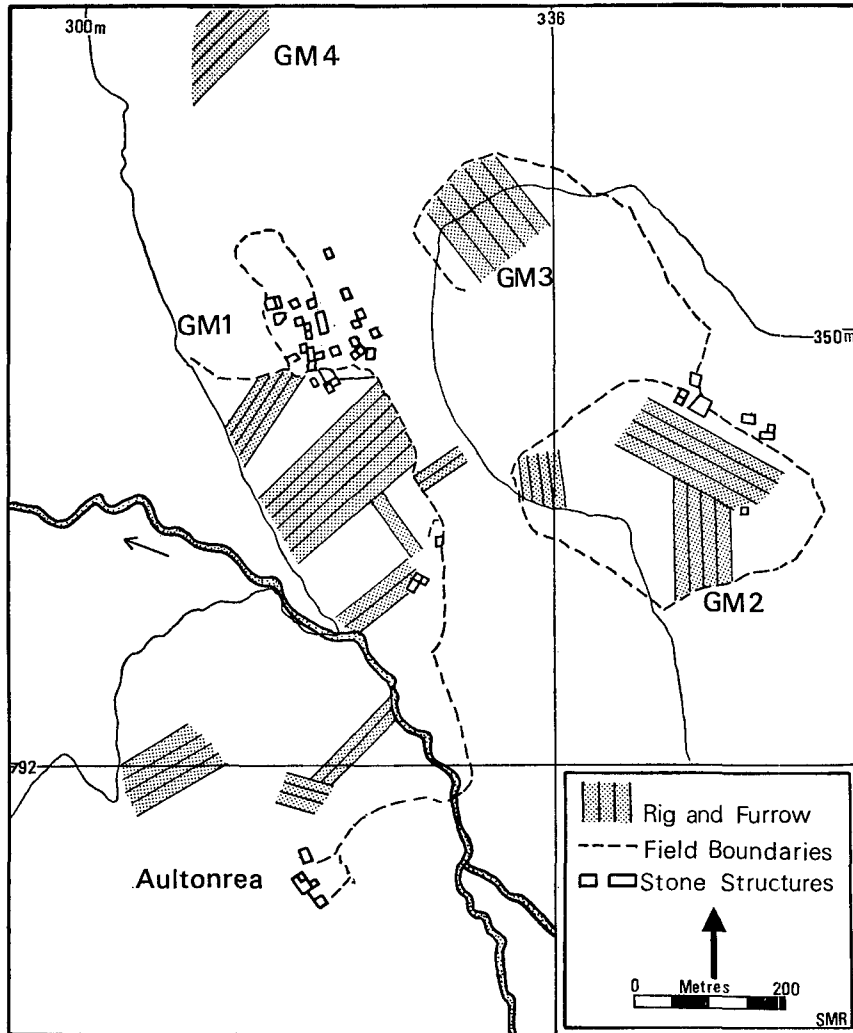


FIG 3 Cultivation and settlement traces at Glen Muick sites 1-4 (21-24) and Aultonrea (25). The symbol for rigs is stylised and reflects their area and orientation but not their spacing. *Based on OS map; Crown copyright reserved*

Information is laid out in the following order:

Gazetteer No. Category	Site Name	National Grid Ref.	Grampian Regional Council Sites and Monuments Record No
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Text

Earliest Map Ref.

In the descriptions of rig and furrow, the term 'wavelength' is used for the measurement of the distance between adjacent ridge crests, following Parry (1976b, 8): for a definition of rig and furrow

cultivation, see Fenton (1976, 5). Full details of each site are held in the Grampian Regional Council's Sites and Monuments Record.

### Ythan Valley

The immediate environs of the 15 miles of the River Ythan between Fyvie and Ellon contrast strongly with the ordered agricultural landscapes which lie to the N and S of the river. In parts steep-sided and craggy, the river banks and the slopes above lie outwith the modern field boundaries and preserve a truncated pattern of former land use.

- 1 *Braes of Minonnie North* NJ 793 373 NJ 73 NE 39  
Rig and Furrow  
Low lying rigs running parallel to the River Ythan on a haugh on the E bank, with a wavelength of c 5.5 m and covering an area of 1 ha.
- 2 *Blackhillock* NJ 792 375 NJ 73 NE 40  
Rig and Furrow  
1 ha of low rigs with a wavelength of c 5 m, running in a N/S direction on a haugh on the W bank of the river.
- 3 *Braes of Minonnie* NJ 792 367 NJ 73 NE 41  
Longhouse and Enclosure  
Depleted footings of a longhouse c 9 m by 3 m, with a small enclosure or kailyard, on the E bank of the river, wedged between the river and a rocky cliff. In all the site covers 0.5 ha.  
*Military Survey 1750*
- 4 *Doolie Bridge* NJ 795 382 NJ 73 NE 42  
Depopulated Settlement and Earlier Features (fig 2)  
A sequence of settlement features established in two principal foci and covering an area of 2.5 ha. To the W, in rocky land bordering the flood plain, are three longhouses (middle house 17 m by 2.5 m internally) and two stone enclosures, while to the SE is a gently sloping terrace enclosed to the N by a substantial earthen bank and on the other sides by a low stone wall. It contains, in the SW corner, two longhouses and associated kailyards, the larger house being 15 m by 3 m. A hut circle, 7 m in diameter, lies immediately N of an entrance gap in the bank. A sunken track links the two foci and winds down to a former river crossing. Two enclosures and other banks and dykes lie within this area, which is on a N facing slope immediately above the river. Traces of rigs underlie the present field dykes immediately S of this complex.  
Gordon 1630-50
- 5 *Wood of Wardford* NJ 835 391 NJ 83 NW 16  
Rig and Furrow  
16.5 ha of well preserved rigs with a wavelength of c 4.8 m on a NW facing slope of 11°. The upper part of the slope has recently been improved, but rigs can still be detected as crop marks.  
*Military Survey 1750*
- 6 *Blairfowl West* NJ 808 386 NJ 83 NW 17  
Rig and Furrow  
1 ha of low rigs, wavelength 5.5 m, in pasture on a N facing slope, much of which has been taken into modern cultivation.  
*Military Survey 1750*
- 7 *Blairfowl East* NJ 814 384 NJ 83 NW 18  
Rig and Furrow  
Low rigs, similar to (6), on a N facing slope of 4°, above the flood plain of the Ythan, covering an area of 1 ha.  
2K

- 8 *Haddo Farm* NJ 825 385 NJ 83 NW 19  
Rig and Furrow  
Intricate pattern of long sinuous rigs, wavelength 11·4 m running in improved pasture from the farm down to the river on the NE facing, 5° slope, and covering an area of 42·5 ha.  
*Military Survey 1750*
- 9 *Bellmuir* NJ 870 365 NJ 83 NE 32  
Hut circles, stone clearance heaps, rig and furrow.  
A site complex, located within c 180 ha of unimproved pasture, recorded by the OS Archaeology Division (*see above* p 493) and consisting of a round cairn, five low round barrows, ten hut circles, stone clearance heaps, sunken tracks, an oval, stone-walled enclosure containing spade ridges and with a small circular enclosure at its centre, and an extensive system (c 30 ha) of various types of rig and furrow, part of which respects a low (?) head dyke.  
*Military Survey 1750*
- 10 *Wood of Schivas* NJ 902 353 NJ 93 NW 27  
Rig and Furrow and Associated Features  
Intricate pattern of different types of rig and furrow covering an undulating area of 27·5 ha of cleared woodland on the N bank of the River Ythan. Rigs vary from regular, narrow and straight (up to 80 m long) to moderately sinuous and in some areas are overlaid by depleted stone banks. A substantial trapezoidal enclosure contains 8 broad (?) spade ridges, while a stone walled hut circle, c 12 m in diameter, a field clearance heap and other field boundaries also survive.  
*Military Survey 1750*

#### Crathie

c 100 ha of hill slopes and ridges comprising the catchment area of the lower reaches of the Crathie Burn, just N of its confluence with the River Dee, between Ballater and Braemar. The following sites were found in under-utilised land adjacent to the present mixed farmland.

- 11 *Rintarsin* NO 264 965 NO 29 NE 7  
Depopulated Settlement  
Three longhouses situated on a SE facing slope at a height of 425 m, and covering an area of 0·5 ha.  
*Military Survey 1750*
- 12 *Knock of Lawsie* NO 263 963 NO 29 NE 8  
Depopulated Settlement  
Substantial longhouse, L shape in plan, 10 m by 2·5 m, footings up to 0·5 m high, on a S facing slope at an altitude of 400 m. An enclosure lies 100 m to the SW of the house. The site covers an area of 1·3 ha.  
*Military Survey 1750*
- 13 *Burn of Rintarsin* NO 264 962 NO 29 NE 9  
Depopulated Settlement (pl 57)  
Three longhouses, one standing alone and two backed together in an L formation, situated at 380 m, on the E bank of the Rintarsin Burn, and covering an area of 0·3 ha.
- 14 *Lawsie* NO 264 960 NO 29 NE 10  
Depopulated Settlement (pl 57)  
Settlement c 3 ha in extent, consisting of nine longhouses, two enclosures and a limekiln situated at a height of 370 m on a W facing slope. Wall footings survive to a height of 1 m.  
*Military Survey 1750*
- 15 *Crathienaird* NO 256 959 NO 29 NE 11  
Depopulated Settlement  
Remains of a small township covering an area of 1 ha, and consisting of 5 longhouses, with stone



footings surviving up to 0.5 m in height. Some houses are subdivided, and all vary in dimensions. A low bank runs beneath the enclosure of the present steading. There are also two enclosures and depleted field dykes to the N of the settlement. The site lies on a N facing slope at an altitude of 340 m.  
*Military Survey 1750*

- 16 *Farm of Lawsie* NO 262 961 NO 29 NE 12  
Depopulated Settlement  
Footings of two longhouses with a small enclosure near the present steading. An old track runs N from the farm passing two more longhouses with internal partitions. On the W side of the track are the ruins of a limekiln. The site is situated on a S facing slope at an altitude of 350 m, and covers an area of 1.5 ha.
- Glen Muick**
- Of the 11 miles of glen which follow the River Muick N from Loch Muick to its confluence with the River Dee near Ballater, only the E side was surveyed, as the slopes on the W side are densely afforested. The sites recorded on the E side lie on the narrow flood plain and on the series of flanking hills and ridges predominantly used for rough grazing or grouse moor.
- 17 *Auchnacraig Hill 1* NO 336 893 NO 38 NW 3  
Depopulated Settlement and Rig and Furrow  
Small township, c 3 ha in extent, consisting of five longhouses and an enclosure, situated on the S facing slope of Auchnacraig Hill at 425 m. Broad rigs run in a NW/SE direction immediately N of the houses and are enclosed by field boundaries. Two isolated longhouses lie c 300 m E of the settlement.  
Robertson 1822
- 18 *Auchnacraig Hill 2* NO 339 889 NO 38 NW 4  
Depopulated Settlement and Rig and Furrow  
Small township, c 5 ha in extent, enclosed by a head dyke and consisting of four longhouses and an enclosure at an altitude of 430 m. Two plots of sinuous rigs, wavelength c 11 m, on the N facing, 3° slope, run NE/SW and NW/SE, focusing on the settlement.  
Robertson 1822
- 19 *Auchnacraig Hill 3* NO 346 894 NO 38 NW 5  
Depopulated Settlement and Rig and Furrow  
Two longhouses with enclosure lie at 350 m on the E bank of the Allt Cholzie. Two plots of rigs on a W facing, 5° slope run NE/SW and E/W and focus on the settlement. The whole site covers an area of 6.5 ha.
- 20 *Titabutie* NO 311 863 NO 38 NW 6  
Depopulated Settlement  
Two longhouses, covering an area of 0.6 ha, on the E bank of the river at 390 m.  
Robertson 1822
- 21 *Glen Muick 1* NO 357 925 NO 39 SE 4  
Depopulated Settlement and Rig and Furrow (fig 3)  
Substantial township of twelve houses, three enclosures and a corn-drying kiln, situated on a prominent ridge at 300 m. Footings of earlier buildings underlie the township. To the SW of the township, on a W facing, 8° slope within a dyke is an extensive system of well preserved rig and furrow with a wavelength of 12 m and stone clearance along the rig sides. There are indications of a change in orientation of the ploughing in the northern part of the system. The whole site covers an area of 8 ha. A sunken track runs to a similar settlement at Glen Muick 2 (22).  
*Military Survey 1750*

- 22 *Glen Muick 2* NO 362 924 NO 39 SE 5  
Depopulated Settlement and Rig and Furrow (fig 3)  
Five houses and two enclosures on a SW facing slope at 350 m. Sinuous rigs with a wavelength of 9.2 m run in a NW/SE direction within a head dyke. The site covers 8.8 ha in all.  
Robertson 1822
- 23 *Glen Muick 3* NO 360 927 NO 39 SE 7  
Rig and Furrow (Fig 3)  
2.5 ha of sinuous broad rigs, on a N facing, 8° slope, inside a dyke which runs in a N and W-ward curve from Glen Muick 2 (22). One longhouse overlies the rigs near the middle of the cultivated area.  
*Military Survey 1750*
- 24 *Glen Muick 4* NO 356 929 NO 39 SE 8  
Rig and Furrow (Fig 3)  
3.5 ha of sinuous rigs on an E facing slope of a ridge at c 325 m. Some small stone structures overlie the rigs.  
*Military Survey 1750*
- 25 *Aultonrea* NO 356 919 NO 39 SE 6  
Depopulated Settlement and Rig and Furrow (fig 3)  
Six longhouses and two kailyards enclosed by stone wall on an undulating ridge. One gable-end standing to 1.8 m and earlier walls still visible, but robbed. Indistinct rigs and six clearance heaps lie to the W of the settlement and pronounced rigs are on the N facing slope. The area occupied by these features is c 8 ha.
- 26 *Garlot* NO 356 932 NO 39 SE 9  
Rig and Furrow  
c 3.5 ha of rigs on an E facing slope at 320 m.  
Robertson 1822
- 27 *Balno* NO 348 912 NO 39 SW 3  
Depopulated Settlement  
A small township covering 0.7 ha and consisting of five longhouses and two enclosures. It lies on the flood plain of the E bank of the river, at an altitude 280 m. The longhouses vary from 10 m by 3 m to 8 m by 2 m internally, and are in varying states of decay.  
*Military Survey 1750*

### Glen Dye

The 3 miles of upper Glen Dye, through which the River Dye runs E/W before turning N at the Spital, contain, on the moderate hill slopes immediately above the river, the following series of depopulated settlements. The principal land use of this area at present is as a grouse moor.

- 28 *Waterhead* NO 625 836 NO 68 SW 1  
Depopulated Settlement and Rig and Furrow  
Six longhouses, and rig and furrow in nine enclosures, which cover in all 15 ha, are situated on a S facing, 6° slope at 250 m. A small enclosure backs on to one of the longhouses and contains pronounced spade ridges. Enclosures to the W of the settlement show distinct straight rigs, with a wavelength of 12 m, on which a later square stock enclosure has been built.  
*Military Survey 1750*
- 29 *Gauns Hill* NO 636 837 NO 68 SW 2  
Depopulated Settlement and Rig and Furrow  
A settlement covering 8 ha in all, with two distinct foci. S of the present track are four longhouses and c ten enclosed fields of rig and furrow on a S facing slope at 225 m. Several small enclosures near the houses contain distinct spade ridges. To the N of the present track are two longhouses and four enclosures. a possible corn-drying kiln and a substantial head dyke. A sunken track runs E through the settlement and crosses the river to the settlement at Little Stag Hill (30).

- 30 *Little Stag Hill* NO 638 837 NO 68 SW 3  
 Depopulated Settlement and Enclosures  
 A substantial longhouse with three partitions and attached byre is situated on a N facing slope at 215 m. A semi circular embanked enclosure abuts the S side of the house. A small circular enclosure lies immediately to the E. The depleted remains of a possible additional longhouse and other enclosures lie to the N and W. The whole site occupies 1.5 ha.
- 31 *Spitalbank* NO 647 841 NO 68 SW 4  
 Depopulated Settlement  
 Two enclosures and three longhouses, substantially depleted, are situated on a W facing slope at 215 m, covering 2 ha.  
*Military Survey 1750*
- 32 *Charr* NO 617 830 NO 68 SW 5  
 Depopulated Settlement  
 Two foci of settlement in the valley floor, at 250 m and covering 6.5 ha. On the N of the river are three enclosures, one longhouse with three partitions and a small rectangular kailyard, and a stone walled enclosure. S of the river are one longhouse and two small patches of rig and furrow.  
*Military Survey 1750*
- 33 *Bog of Luchray* NO 629 835 NO 68 SW 6  
 Depopulated Settlement  
 Three subdivided longhouses and two enclosures are situated on a N facing slope at 250 m. The site in all covers 2 ha.
- 34 *Paton's Heugh* NO 605 833 NO 68 SW 7  
 Depopulated Settlement and Rig and Furrow (pl 58)  
 Complex system of rig and furrow, enclosed and subdivided by low dykes into six fields. The rigs have a wavelength of c 9 m and run down a S facing 7° slope from a substantial longhouse with kailyard, while there are also two longhouses further upslope. A square, stone walled sheepfank overlies the NE corner of the system while a substantial longhouse overlies rig to the W. The site complex covers an area of 15 ha, at 275 m, and appears to mark the limit of settlement in the glen.

## ASSESSMENT

The first and most obvious feature of the sites identified in the survey is their comparative homogeneity. There are, it is true, differences between the areas, but all contain predominantly evidence of settlement from the more recent past. So, to the extent that the gazetteer is dominated by occurrences of rig and furrow and longhouses rather than by hut circles and stone clearance heaps, it might be considered that the original model for the survey has not been fully sustained. Conceived from one site complex on the Ythan, the role of woodland as a factor in the preservation of cultivation evidence can be seen at other Ythan sites such as Schivas (10), Wardford (5), Blairfowl West (6) and part of Haddo (8) (fig 4). However, the model does not seem to apply in the other areas studied, where different factors were in operation: these are reflected in the differences which can be perceived between the areas. The Crathie sites, for example, (with the exception of Lawsie (14)) are surrounded by land still actively farmed. To the extent that their landscape contexts have been largely destroyed, they contrast strongly with such site complexes as seen in Glen Muick. It is therefore exceptionally difficult to make comparisons between, or to attempt chronological or functional deductions from, these two groups of sites.

Similarly, the craggy slopes above the Ythan, which are outwith the reach of most modern farming practices, have preserved an albeit truncated series of features which are difficult to interpret, while again contrasting with the apparent completeness of other sites such as those in Glen Dye.

Throughout this project the examination of a variety of cartographic sources was undertaken. Some attempt should now be made to comment on the value of this work. All available maps for the sample areas were consulted and the information then correlated in tables, of which fig 4 is an example. Pont's map of c 1600 was the earliest available and ensured that a three hundred year period could be examined (cf Parry 1976a, 50-60; Morrison 1980, 35). There are, however, several problems associated with this technique, which arise from the (obvious) fact that a map is the product of a surveyor's own interpretation, the basis for which is not always clear. For example it was discovered that several of the sites were shown on the early OS maps but were not named. It can be argued that such settlements were uninhabited by the time the map was drawn up. However, the only maps consulted during the survey which gave some direct indication of the condition of the structures were the OS 1st ed (1809) and 2nd ed (1904) for the Crathie area where the terms 'OLD LIMEKILNS' and 'RINTARSIN IN RUINS' were used.

A further example of the problems associated with using place-name evidence in this fashion is seen in Glen Muick. The OS 1902 map suggests that all the settlements, with the exception of BALNO, were in use in 1902. However the Estate map of 1868 shows only TITABUTIE and BALNO. It would seem reasonable to assume that the relatively large scale estate map would include all thriving, or rent-producing settlements. Therefore those remaining settlements might be assumed to be out of use by 1868, and that the OS in 1902 mapped the structures, the lack of names suggesting that the buildings were not inhabited.

Fig 4 summarises the information for the newly discovered sites on the Ythan. The role of woodland in covering areas of rigs has been noted at Wardford (5), Blairfowl West (6), Haddo Farm (8) and Schivas (10). In some cases, for example Schivas (10), it was difficult to establish the exact location of the rigs due to local cartographic distortion. A further problem is that the symbol used on the *Military Survey* to depict areas of rig appears, almost invariably, to be a stylistic convention. Therefore it would be unsound to draw conclusions on the orientation and dimension of rigs solely from the depictions on the *Military Survey*.

It is striking that only one site, Doolie Bridge (4), revealed direct evidence for continuity of settlement over a long period of time. Indeed the correlation of the field and cartographic evidence is not always straightforward. For example several inferences could be drawn from the fact that the sites of Auchnacraig Hill 1 and 2, which today display extensive cultivation and settlement evidence, do not appear on the *Military Survey* of 1750 but do appear on Robertson 1882. The first and most obvious inference would be that the cultivation was indeed post 1750. Alternatively, the rigs could represent pre-1750 cultivation which had gone out of use by 1750 and that the sites were reoccupied by 1822. A possible support for this second solution may come from the place name itself, Auchnacraig, the first element of which derives from the Gaelic 'Ach' (*Achadh*) meaning field (Small & Coull 1969, 50). The appearance of this name on Roy without any associated settlement or cultivation symbols suggests the antiquity of cultivation at these sites. There is of course a third option, which in this particular case is unlikely, namely that the sites were occupied at the time of the *Military Survey*, but were omitted from the map. This disturbing element of uncertainty has been shown by Parry (1980, 181) to apply only to a relatively tiny (5%) proportion of sites.

## DISCUSSION

The sample areas considered in this survey do not consist of prime agricultural land, neither are they readily accessible in modern terms. Furthermore the uses to which these areas have been put are of low intensity, such as rough grazing or grouse moor, which have been

<u>SITES / SOURCES</u>	PONT 1581-96	GORDON 1630-50	ROY 1750	ROBERTSON 1822	OS 1873	OS 1901
1.BRAES OF MINONNIE (N)						
2.BLACKHILLOCK						
3.BRAES OF MINONNIE			●		●	
4.DOOLIE BRIDGE		●	●	"MINNONIE" ●	●	
5.WOOD OF WARDFORD			●			
6.BLAIRFOWL WEST						
7.BLAIRFOWL EAST						
8.HADDO FARM			●			
10.WOOD OF SCHIVAS			●	●		
<u>KEY</u> —	~ woodland    ●~settlement        ~rig and furrow    "DOOLIE"~settlement named <span style="float: right;">SMR</span>					

FIG 4 Summary of land use information obtained from early maps for sites discovered on the Ythan

compatible with the survival of these important and hitherto unappreciated enclaves in this Region. Nor should modern concepts of accessibility colour our interpretation of the potential importance of those sites in the rural economy of the past. For example the Crathie, Glen Muick (Haldane 1952, 117) and Glen Dye (Fraser 1921, 78–80) sites all lie on or close to well established 18th-century drove roads. Indeed, in the early 18th century, as many as 6,000 cattle were recorded crossing the Cairn o' Mounth (immediately S of Glen Dye) in one summer (Small & Coull 1969, 51).

Turning to the physical characteristics of the sites, a major variable is the morphology of the traces of rig and furrow. The variation in morphology was observed not only between sites but also within the larger sites, as for example at Schivas (10) where both narrow and broad, enclosed and unenclosed, rigs were noted. Again, in the Ythan valley, the rigs at Wardford (5) were narrow and straight (4.8 m in wavelength and c 2.5 m wide), while those at the adjacent site of Haddo (8) were broad and sinuous (11.4 m wavelength, c 8 m width). At Glen Muick 2 (22), distinctly curved rigs with a wavelength of 9.2 m and a width of c 7.2 m were found within a head dyke, which were mirrored at Auchnacraig Hill 2 (18). However these contrast with the straight rigs to be found at Waterhead (28) (c 7.5 m wide and 12 m wavelength), which are enclosed in rectilinear fields. At both Gauns Hill (29) and Waterhead (28) small kailyards contain densely packed and well defined spade ridges.

These clear variations reflect differences in agricultural techniques, which have a potential chronological value. The detailed working out of the implications of these observations in the manner of Parry's work (1976a; 1976b) (on a very much larger sample) is clearly outwith the scope of this paper, although some deductions can be made from the characteristics of the rigs. In general a distinction can be made between the narrow straight rigs of Wardford (5) and the broad sinuous ridges of the four Glen Muick sites (21–4) on the one hand, and the broader, straighter and more regular enclosed rigs of Glen Dye on the other; the former being a product of pre-improvement cultivation techniques and the latter the product of improved techniques. Such a distinction as is made here should not be taken as a firmly established statistical artefact in the way in which the distinction made by Parry may be (1976b, 9, figs 4 & 5). Broad straight rigs similar to those found in Glen Dye (28, 32) have been attributed (Parry 1976b, 13; Fenton 1976, 39) to the introduction of James Small's iron 'swing plough'. However to use this introduction as a single horizon in dating these techniques is a hazardous process as there was a considerable time lag in the adoption of the new techniques in different areas (Parry 1976b, 14; Alexander 1877, 38; Carter 1979, 44).

For example Parry (1976b, 14) dates the introduction of the 'swing plough' in East Lothian to 1767, it coming into widespread use in the 1770s; however some upland areas continued to be cultivated by the old methods up to the 1830s. In Aberdeenshire the swing plough was not introduced until approximately 1800 (Alexander 1877, 38) on the large lowland farms (Carter 1979, 44) and was in use widely by 1850. This apparent time-lag between the North-East and East Lothian would have been reduced by the introduction in some cases of 'expert ploughmen' from East Lothian to Aberdeenshire 'to set an example in working them' (Alexander 1877, 39).

The suggestion that rigs such as those at Wardford (5), Haddo (8) and Blairfowl West (6) belong to pre-improvement times would seem to be confirmed by the change in land-use shown by the mapping of trees at these sites by 1822 (fig 4).

It is clear from this short discussion that precise dates cannot be attributed to the abandonment of the sites listed in the Gazetteer. However there are indications from the Ythan of a relative chronology which comprises pre-improvement curved rigs of varying dimensions, and improved rigs which are broad, straight and enclosed in separate fields.

A further possible fixed point in this discussion of chronology is the pair of sites, Auchnacraig Hill 1 and 2, (17 & 18) which have been suggested (see page 504) as belonging to pre-*Military Survey* times and, hence to pre-improvement times. There, curved rigs can be compared with the Glen Muick sites (21-4), which therefore also can be considered pre-improvement. The structural remains at these sites however should not be interpreted as being contemporary with the cultivation evidence. By the same token, Glen Dye illustrates the characteristics of improved rigs: regular, broad, straight and enclosed.

Several cases of a possible sequence in the visible settlement features have been noted in the *Gazetteer*. These features and the suggestions of pre-improvement date for some of the cultivation evidence suggest that such sites demonstrate a greater 'time depth' than might be assumed from such archaeological work which has been undertaken on comparable sites. For example, at Lix, in Perthshire, the excavator did not feel confident to attribute any structure to before the mid 18th century (Fairhurst 1969, 191-2). However it should be noted that this dating has been criticised as an overcautious interpretation of the possibilities (Dodgshon 1980, 62; Alcock 1980, 2). Therefore, as has already been mooted, the beginnings of several of these sites could conceivably lie in post, or late, medieval times, possibly as part of a system of shieling sites (Turnock 1977, 332) similar to the N Welsh *Hafod* settlement, which was the summer base of a transhumance circuit (Allen 1969), or to shielings seen in Scotland from the end of the 18th century, in Perthshire, Avonside and Assynt (Fenton 1980, 101-2).

On the other hand, other aspects of some of these sites should be interpreted in the light of factors such as the late crofting boom based on the cattle industry (Turnock 1974, 346) and small scale squatter reclamation (Kay 1962, 104-6). Confirmation of these possibilities at a site-specific level will require detailed documentary research, which is outwith the scope of this initial survey.

## CONCLUSIONS

It must be emphasised that the approach to the study of rural settlement described in this paper is valuable essentially as a first phase in that it identifies areas which are rich in field evidence. However a second phase should follow up the rich documentary records such as *Statistical Accounts*, estate papers, rent books, etc. The combination of field and documentary evidence can only lead to a fuller understanding of these historical landscapes. Detailed surveying would also be a valuable contribution to further research.

Indications of considerable time depth at several of the sites identified encourage the belief that the elucidation of the pre-improvement settlement pattern is not an impossible task.

The apparently mute evidence of cultivation which is presented in this paper represents fragments from a pre-industrial farming landscape, whose challenges and problems have probably never been better summed up than by the eponymous Johnny Gibb of Gushetneuk, who, looking back over 30 years of toil, says

'Takin't as it is, there's been grun made oot o' fat wasna grun ava; an there it is, growing craps for the eese o man an beast. - Ou ay, au ken we've made weel aneuch oot upon't; but it's nae i the naitur o' man to gyang on year aifter year plewin, and del'in, an earin, an shearing the bits o' howes an knowes, seein the vera yird obaidient till's care, takin' shape, an sen'in up the caller blade in its sizzon, an aifter that the 'fu' corn i the ear, as the *Scriptur* says, onbeen a kin and thirl't to the vera rigs themsels.' (Alexander 1871, 244).

## REFERENCES

- Alcock, L 1980 'Early Historic Settlement Problems in Scotland', in Morrison, A (ed), *Rural Settlement Studies, Some recent work*, Glasgow, 1-6.
- Alexander, W 1871 *Johnny Gibb of Gushetneuk in the Parish of Pyketillum* (1979 ed). Turriff.
- Alexander, W 1877 *Notes and Sketches Illustrative of Northern Rural Life in the Eighteenth Century* (1981 ed). Finzean.
- Allen, D 1979 'Excavations at Hafod y Nant Criafolen, Brenig Valley, Clwyd, 1973-74', *Post-Medieval Archaeol*, 13 (1979), 1-59.
- Archaeol Field Survey SAS 1978 *The Archaeological Sites and Monuments of Clackmannan District and Falkirk District, Central Region*. RCAMS. Edinburgh.
- Archaeol Field Survey SAS 1980 *The Archaeological Sites and Monuments of Upper Eskdale, Annandale and Eskdale District, Dumfries and Galloway Region*. RCAMS. Edinburgh.
- Caird, J B 1964 'The Making of the Scottish Rural Landscape', *Scot Geogr Mag*, 80 (1964), 72-80.
- Caird, J B 1980 'The reshaped agricultural landscape', in Parry and Slater 1980, 203-22.
- Carter, I 1979 *Farmlife in North East Scotland 1840-1914*. Edinburgh.
- Cash, C G 1907 'Manuscript maps by Pont, the Gordons and Adair in the Advocates' Library, Edinburgh', *Scot Geogr Mag*, 23 (1907), 574-92.
- Coull, J R 1980 'The district of Buchan as shown on the Roy Map', *Scot Geogr Mag*, 96 (1980), 67-73.
- Dodgshon, R A 1980 'Medieval settlement and colonisation', in Parry and Slater 1980, 45-68.
- Fairhurst, H 1967 'The Archaeology of Rural Settlement in Scotland', *Trans Glasgow Archaeol Soc*, N ser, 15 (1967), 139-58.
- Fairhurst, H 1968 'Rosal: a Deserted Township in Strath Naver, Sutherland', *Proc Soc Antiq Scot*, 100 (1967-8), 135-69.
- Fairhurst, H 1969 'The Deserted Settlement at Lix, West Perthshire', *Proc Soc Antiq Scot*, 101 (1968-69), 160-99.
- Fenton, A 1976 *Scottish Country Life*, Edinburgh.
- Fenton, A 1980 'The traditional pastoral economy', in Parry and Slater 1980, 93-113.
- Fraser, G M 1921 *The Old Deeside Road (Aberdeen to Braemar). Its Course, History and Associations* (1980 ed). Aberdeen.
- Gailey, R A 1962 'The Evolution of Highland Rural Settlement', *Scot Stud*, 6 (1962), 155-77.
- Haldane, A R B 1952 *The Drove Roads of Scotland*. Edinburgh.
- Kay, G 1962 'The Landscape of Improvement: A case study of agricultural change in North-east Scotland', *Scot Geogr Mag*, 78 (1962), 100-11.
- Mercer, R J 1980 'Field Survey and Settlement Location in Northern Scotland', in Morrison, A (ed), *Rural Settlement Studies. Some recent work*, Glasgow, 21-34.
- Mercer, R J & Howell, J M 1980 *Archaeological Field Survey in Northern Scotland, 1976-1979*, Univ of Edinburgh, Dept of Archaeol, Occas Paper 4.
- Morrison, A 1980 'Some Recent Research on the Rural Settlement of Lochtayside', in Morrison, A (ed), *Rural Settlement Studies. Some recent work*, Glasgow, 35-9.
- Parry, M L 1975 'County Maps as Historical Sources', *Scot Stud*, 19 (1975), 15-26.
- Parry, M L 1976a 'The Abandonment of Upland Settlement in Southern Scotland', *Scot Geogr Mag*, 92 (1976), 50-60.
- Parry, M L 1976b 'A Typology of Cultivation Ridges in Southern Scotland', *Tools and Tillage*, 3 (1976), 3-19.
- Parry, M L 1980 'Changes in the extent of improved farmland', in Parry and Slater 1980, 177-99.
- Parry, M L & Slater, T R (eds) 1980 *The Making of the Scottish Countryside*. London.
- RCAMS 1980 Roy Comm Anc Hist Mon Scot Argyll: *an inventory of the monuments*, 3. Mull, Tiree, Coll and Northern Argyll (excluding the Early Medieval and later monuments of Iona). Edinburgh.
- Roy Scot Geogr Soc 1973 *The Early Maps of Scotland to 1850*, (3rd ed). Edinburgh.
- Skelton, R A 1967 'The Military Survey of Scotland', *Scot Geogr Mag*, 83 (1967), 5-15.
- Small, A & Coull, J R 1969 'The Prehistoric and Historic Heritage', in Walton, K (ed), *Royal Grampian Country* (1969), 47-52. Dept of Geogr, Univ of Aberdeen, Rep for Scot Tourist Board. Aberdeen.
- Smout, T C & Fenton, A 1965 'Scottish Agriculture before the Improvers: an Exploration', *Agr Hist Rev*, 13 (1965), 73-93.



- Steer, K nd *Recording Scotland's Heritage. The Work of the Royal Commission on the Ancient and Historical Monuments of Scotland*. Edinburgh.
- Taylor, C C & Aberg, F A 1979 *Survey of surveys 1978: a review of local archaeological field survey and recording*. London, Roy Comm Hist Monuments (Eng).
- Turnock, D 1977 'Stages of agricultural improvement in the uplands of Scotland's Grampian region', *J Hist Geogr*, 3 (1977), 327-47.
- Whittington, G 1973 'Field Systems of Scotland', in Baker, A R H and Butlin, R A (eds), *Studies of Field Systems in the British Isles*, Cambridge, 530-89.
- Whittington, G 1975 'Was there a Scottish Agricultural Revolution?', *Area*, 7 (1975), 201-6.

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Settlement traces, principally longhouses, in the Crathie area at Burn of Rintarsin (13) (background) and Lawsie (14) (foreground). Aberdeen Archaeological Surveys



Complex of rig and furrow and overlying features visible under snow at Paton's Heugh (34), Glen Dye. Aberdeen Archaeological Surveys