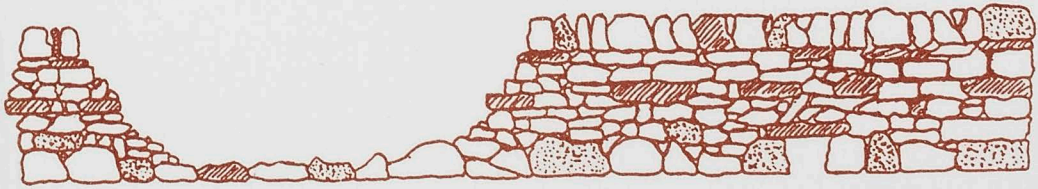
VERNACULAR BUILDING 17

Scottish Vernacular Buildings Working Group

1993



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Cover: The logo of the Pentlands Dyking Group (see article by Norma Campbell p1).

Contents

PREFACE

The Scottish Vernacular Buildings Working Group was set up in 1972 to provide a focus for all those interested in the traditional buildings of Scotland.

To some, Scottish 'vernacular' may mean cottages, croft-houses and farmsteads; to others, its essence may be urban tenements and terraces, industrial watermills and smithies, or even the older traditions of tower-house buildings. All - and more besides - find a place within SVBWG.

The Group embraces those whose interests are centred on general settlement and social patterns, as well as those who have a specialized interest in building function, or in traditional building trades and crafts. The subject brings together architects, surveyors, archaeologists, historians, geographers, ethnologists, and above all, those who simply want to know how and why the traditional buildings of Scotland have such variety and character. The Group thrives on this refreshing blend of interests and attitudes, all of which are quite clearly evident in its activities.

Members of the Group are invited to attend annual conferences, held at different venues in Scotland each year. In the Spring of 1993 the 21st Anniversary Conference was based at Douglas on the Isle of Man and the autumn meeting at Fasque House, Kincardineshire. The 1994 Spring Conference will be based in Newton Stewart, Wigtownshire from 29 April-2 May.

The Group's publications include **Vernacular Building** an annual miscellany of articles published free to members and to which members and interested readers are invited to contribute.

Articles, reports on work in progress and reviews for the next issue of **Vernacular Building** are now eagerly awaited and should be submitted to the new editor by the end of June 1994 at the address below.

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DRYSTANE DYKING IN SCOTLAND

Norma Campbell

Although thousands of miles of drystane dykes were built as field boundaries in Scotland in the eighteenth and nineteenth centuries, by the 1970s the number of people earning a living from the rebuilding and repair of such dykes was in single figures. Since then a revival of the craft has been stimulated by interest in conservation and by the introduction of government policies to encourage less intensive farming methods and growth in rural economies.

This article, which traces the development of dyking in Scotland, is adapted from the introductory section of a Business Studies degree dissertation. The Library at Napier University, Edinburgh, has a copy of the full paper, *Rebuilding The Walls: An enquiry into the small-business potential of drystane dyking in Scotland*.

Drystane dyking is the ancient craft of building a wall without mortar by the skilled placing of various sizes of stones. While a mason relies on 'the binding quality of his mortar or cement' a dyker relies 'entirely on the mutual gripping by weight and surface of his stones'[1].

The Old English word 'dyke' (or 'dike') means to dig out. In Medieval English the word became linked to the ditch which digging created, but in Scots it was transferred to the stones and earth which were dug out[2]. Thus the structures which are called dry stone walls in England are known as drystane dykes in Scotland.

Dyking predates the discovery and use of mortar, probably before 5000 BC, and goes back to Palaeolithic and Neolithic times. The craft has persisted through the centuries, especially where stone is plentiful and lime, sand or water is scarce or difficult to transport.

Scotland still has remnants of very early drystane structures. Some of the finest and most massive examples are the Iron Age brochs, notably those in Shetland, Orkney and the outer Hebrides. The building techniques of these circular fortifications are found on a smaller scale in many late Bronze and early iron Age settlements in the north. In contrast, further south, the round stone-walled houses, built between the second and the sixth century AD, are often enclosed by walls like eighteenth century field dykes.

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[1] F Rainsford-Hannay; *Dry Stone Walling,* (London, 1957), Faber & Faber, 11.

[2] Robin F Callander; *Drystane Dyking in Deeside* 2nd ed., (Finzean, 1986), 9.

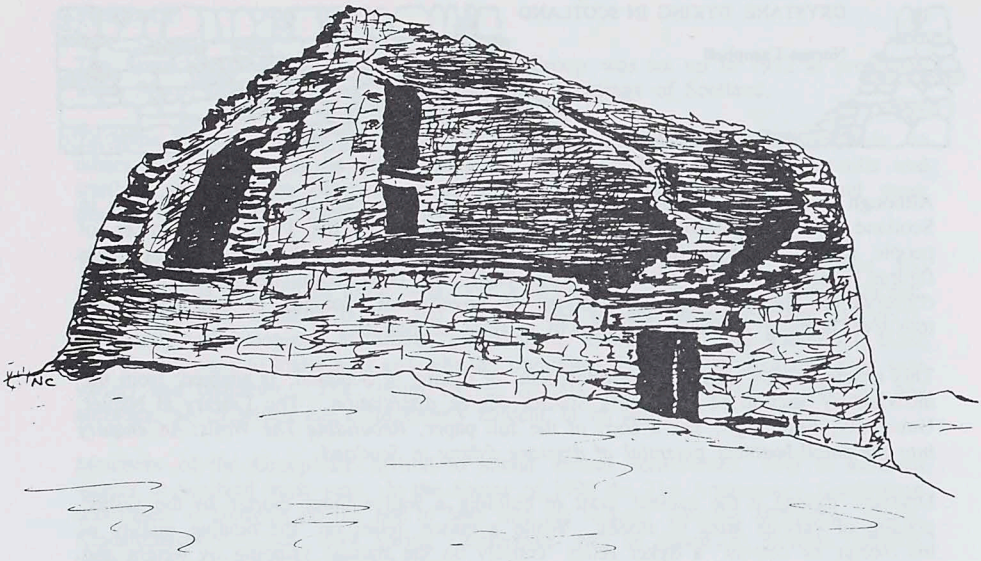

figure 1: Carloway Broch, Isle of Lewis

G S Maxwell in *Excavations at Drumcarrow, Fife: an Iron Age Unenclosed Settlement*[3] describes these Roman-influenced dwellings as 'regular, well-built structures with solid walls, varying between 4 and 7 feet in thickness, with an inner and outer face of fairly massive boulders enclosing a rubble core'.

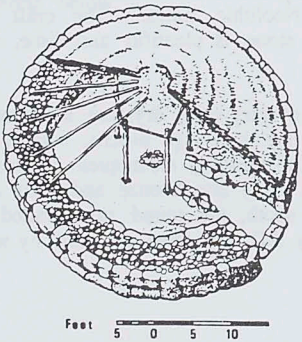

figure 2: Reconstruction of the Drumcarrow house, Fife

[3] G S Maxwell, *Excavations at Drumcarrow, Fife: an Iron Age Unenclosed Settlement* in *PSAS*, vol 100, (1967-8), 100-8.

Although drystane dwellings continued to be built in the remoter areas of Scotland, by the seventeenth century the three main uses of dykes were to surround the yard beside a dwelling, to mark territorial boundaries and to pen stock in small enclosures. Many of the latter were 'feal dykes' of turf, or turf and stone, which were temporary and broken down each year for extra manure. In addition, the growth of the cattle trade with England in the 1680s led to a few dyke-enclosed cattle parks being built in Galloway and near Edinburgh for the drovers and their beasts, en route from the north.

Other dykes were unnecessary since, in the run-rig system of agriculture, small groups of families, working together in a 'township' of shared tenancies, continuously cultivated scattered strips and patches of arable land (the 'infield') and used the more extensive 'outfield', with its naturally regenerating meadow grass, for common grazing and marginal cultivation. In spring and summer they moved with their surviving stock to grazing on the 'commonties' in the distant hill pastures. Herding the animals on these 'summer shielings' in the growing season kept them away from the crops, so there was no need for stock-proof fencing[4].

This old style of farming was adequate to supply a small population with its own food, fodder for its beasts, and timber and peat for construction and fuel, but the population growth and dwindling natural resources of the late seventeenth century exposed its weaknesses, and led to severe famines. This gave the impetus for legislation to improve the productivity of the land which, in turn, brought about the ending of the peasant economy of Scotland and the drastic reorganisation of the countryside during the following century[5].

As arable and grazing land was integrated, the twisting strips of fixed crops became straight-sided fields with a set pattern of crop rotation. Yield from the land was increased by the introduction of root crops, the sowing of grass and technical advances in threshing equipment. Improvements in manuring techniques, technical innovations in ploughing, stone clearance from both the marginal land and the well-fertilised shieling grounds, and later the development of land-drainage systems, all created a huge increase in land under the plough. With livestock now on grass beside growing crops the task of herding was almost impossible and some form of stock-proof fencing, such as a stone wall, was needed to separate the fields.

Landowners' power and position, economically based, grew as production and the rent collected from their land increased. With the new farming methods, rents were doubling every ten years in the latter half of the eighteenth century. The old shared tenancy townships began to disappear. They were replaced by single-tenancy farms, with the farmer and his family living in a farmhouse set in the midst of his own fields. The farm lands were extended to include the old hill pastures, and were worked by paid farm labourers who had formerly been the independent small landholders of the township. 'Within any estate the new husbandry tended to be

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[4] Alexander Fenton, *Country Life in Scotland - Our Rural Past,* (Edinburgh, 1987), John Donald, 9.

[5] T C Smout, *A History of the Scottish People 1560-1830* (London, 1969), Collins, 288-289.

implemented on the home farm first. It would then be extended over the range of other holdings on the estate as leases became due or were brought to an end. As the changes gradually diffused ... so the dykes spread to enclose the fields'.[6]

In England, agricultural improvements, the notorious Acts of Enclosure and the disappearance of common land were closely linked with the spread of dry stone walls. The situation was different in Scotland where there were no Acts of Enclosure. A single Act of the Scots parliament, in 1695, had already given landowners control of the common ground, which was mostly hill or mountain land, useful for sheep, forestry and sport rather than enclosed cultivation. The building of dykes came with farm enlargements and enclosures, but was a consequence of them and not a method of enforcing them, as in England. The violent English peasant protests against enclosures had few equivalents in Scotland, apart from the Levellers Revolt in Galloway in the summer of 1724, and some subsequent sporadic and uncoordinated throwing down of dykes and uprooting of hedges. The revolt was against specific ruthless evictions which had preceded farm enlargement, rather than against the enclosures themselves, and was dealt with fairly leniently by the authorities [7].

The enclosure of individual properties, individual farms, and the fields they contained was essential for agricultural improvement. Natural resources, available locally, provided the material for these land divisions and boundaries. Wooden fencing was seldom a viable choice since timber was scarce in most areas. Thorn or beech hedges were often planted, sometimes in combination with ditches, but in many districts the climate and ground conditions were too harsh. Where the soil was too thin to grow a hedge, stone was close to the surface, or could be quarried nearby. Indeed, stone clearance was a necessary part of land improvement and often a prerequisite for cultivation. Dykes absorbed the stones from these clearances and provided substantial, permanent, stock-proof field boundaries. The availability of stone was seldom a problem. In Aberdeenshire there are still several examples of 'consumption dykes', which were built after massive field clearances. The largest, the Kingswell West Dyke at Monymusk, is a solid roadway rather than a wall, measuring 27 feet across its top, 6 feet high and 500 yards long[8]. With the vast amount of stone in such constructions, it is not surprising that country mythology includes tales of field levels falling by over a foot when stones were removed.

Stones were readily available in many districts and mortar was expensive to bring on site. There were existing examples of old dyking to copy. Dykes were therefore the logical choice for the new enclosures and, before long, they had become the most permanent and visible feature of the new era in farming.

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[6] Callander, op cit, 12.

[7] Smout, op cit, 304-306.

[8] Rainsford-Hannay, op cit, 70-72.

The first systematic enclosure by dykes was begun in 1710 by two brothers, named McKie, who were landowners in the Stewartry of Kirkcudbright [9]. They offered free tenancies on their land in exchange for summer work, under their foremanship, building dykes to enclose moorland and rough pastures. This example was followed by some other landowners, but most paid squads of dykers directly, recouping from tenants through higher rents, or compensated tenants at the end of the current lease for any dyking. Some crofters were given low-rent leases conditional on enclosing land and bringing it into cultivation. Subsequently, when the leases expired, many were unable to afford the increased rents on properties improved by their own labours [10].

The vast majority of farm and estate dykes were built between 1770 and 1870, with the main phase in the first fifty years. In the later period, railways and new road developments were flanked by many miles of dykes. Col Rainsford-Hannay [11] gives an estimate of over 7,000 miles of dykes in Kirkcudbrightshire, while Robin Callander [12] calculates that there are over 3,000 miles in Aberdeenshire. Such figures help to convey the impact of dykes on the landscape of Scotland.

The early dykes were rough and sometimes unstable, or with too gentle a slope to deter livestock. Eventually the most effective dimensions were established, namely 4.5 feet high with a base of 30 inches tapering to a width of 18 inches at the top. Each yard of such a dyke contains a full ton of stone. Since the accepted work-rate for a skilled dyker is six yards per day, the task faced and accomplished by these dyking pioneers was immense in terms of physical labour alone. [13&14]

For hill dykes, rock was often quarried from the hillside and rolled or 'slyped' on sledges down to the line of the dyke. (No dyker will ever willingly move stone uphill). Boulders too large to be shifted were left till winter, then slid over the snow and placed ready for use in the foundations when building restarted. Hand barrows were also used, as was a long, stout, two-inch board for levering heavy stones into position.

Dykers usually worked in pairs, one each side of the wall, and this pairing was normally maintained, because of its efficiency, even when squads of ten or twelve men were working on long stretches of dyke.

The skills of these squads of dykers were much in demand until the agricultural recession and economic depression of the late nineteenth century. Other factors

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[9] ibid, 23.

[10] Callander, op cit, 15.

[11] Rainsford-Hannay, op cit, 31.

[12] Callander, op cit, 80.

[13] Rainsford-Hannay, op cit, 74

[14] Callander, op cit, 29

contributing to the decline of dyking included the availability of fencing wire (which provided a cheap and quick alternative to dyking), the discovery of the superior properties of Portland cement (which made 'modern' masonry fashionable) and, finally, the fact that there is no built-in obsolescence in dykes. A well-built dyke can last over a hundred years with only routine attention. Soon only wealthy landowners, like Queen Victoria at Balmoral, were having new dykes built 'as an indulgence rather than a pragmatic choice'[15].

Although some estates continued to employ dykers on repair and maintenance into the 1930s, and there were then still a few contract squads working on the construction of new roadside dykes, the numbers of those earning a living from dyking was declining rapidly. Concerned about this and, indeed, about the survival of the craft, a group of farmers and landowners in the Stewartry of Kirkcudbright organised a dyking competition which took place, after delays, during the 'Phoney War' in October 1939. The 28 entrants, an unexpectedly high number, included contract dykers, estate dykers, shepherds and farm hands[16]. Four further competitions were held in the next ten years, and thereafter it has become a biennial event. Until 1979 entrants usually numbered around 20. The steady growth of interest in the craft since then has been reflected in the increasing number of competitors, which had reached 67 by 1989.

In order to achieve its aim 'to revive interest in, and preserve the craft of dry stone walling' the Stewartry Drystane Dyking Committee also held two residential dyking classes in the late 1940s. Thus in both competitions and training courses it pioneered the work of the Dry Stone Walling Association of Great Britain, to whom it is now affiliated.

In the years from the 1930s to the 1970s, the craft continued to be practised by a few professional dykers who trained others and thus ensured that the skills and traditions of dyking in Scotland were preserved and handed on.

Despite the removal and destruction of dykes, which have accompanied modern farming improvements and the growth of forestry in Scotland, there is now a growing demand for the repair and reconstruction of neglected dykes. The common practice of running a fence along a fallen dyke (or even filling gaps with corrugated iron or old bedsprings) fits ill with present-day ideas about conservation and the environment.

EEC and central government pressure on farmers to cut down on food production has been accompanied by legislative encouragement, backed by grants, to improve the tourist and leisure potential of rural areas. The special ecology of much of Scotland's countryside has been recognised by the classification of certain districts as Environmentally Sensitive Areas (ESAs). These are mostly well-dyked areas which, as a result of their designation, now attract 100% grants for the repair and restoration of dykes. In addition, almost 90% of Scotland is classified as a Less Favoured Area (LFA) where dyking grants to farmers and landowners are around 50% of the cost.

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[15]ibid, 20

[16]Rainsford-Hannay, op cit, 62

In the 1970s when North Sea Oil interests were constructing gas pipelines to the south, it was a precondition of planning permission that damage to existing dykes would be rectified and new linking lengths of dyke constructed. Since then it has become fairly normal practice for planning authorities to insist on dyke reinstatement when approving plans for new housing developments, etc.

Despite the initial expense and labour-intensity of dyking, there is growing support for the view that, when the skills are available, dyke building and repair is economical in the long run, as well as being more aesthetically pleasing and environmentally sound. In the last ten years, the spread of this attitude, backed by government money, has renewed the demand for dykes, dyking and dykers.

Dykes

With Scotland so well-dyked in the period from 1770 to 1870, most job opportunities for present-day dykers are in the repair, reconstruction and realignment of existing dykes. Neglect over the last century has reduced many walls to rubble. However,the large number still standing not only demonstrate the skill of past dykers, but also provide today's dykers with the patterns which make the most effective use of local stone either in building new walls or in reinstating old ones.

The extreme complexity of Scotland's bedrock geology has resulted in a great diversity of dyking stone, even within limited geographical areas[17]. Granite, the toughest, predominates in the north east and, like other igneous rock, is also found in many other districts. Schists and gneisses are likewise widely distributed. Sandstone, which varies in hardness, colour and form (ie quartzite, grits and flags), is found in widely separated regions such as Dumfriesshire, Caithness and the east coast. Limestone, shale and slate, frequently made into walls in parts of England, are not typical components of Scottish dykes. A generic term, whinstone, is used in Scotland for any hard, dark stones which are not readily identified as being in any of the above classifications. The general dyking rule is to use local stone except where this is extremely fissile or weathers badly.

There are two major styles of dyke in Scotland:-

1. The Galloway dyke probably originates, as its name suggests, in the south west. Although it is typical of the west coast, its use has spread east and north as far as Forfar. Designed to fence sheep (especially the notoriously agile blackfaced breed) it discourages them from jumping by the height of its copes and by the two inch projection of its coverbands and rows of through stones. Known as a double dyke, because it has two faces packed with smaller 'hearting' stones, it is commonly made from whinstone, giving a varied irregular surface, or from sandstone which produces more evenly graded courses.

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[17] I T Bunyan et al *Building Stones of Edinburgh,* (1987), Edinburgh Geological Society.

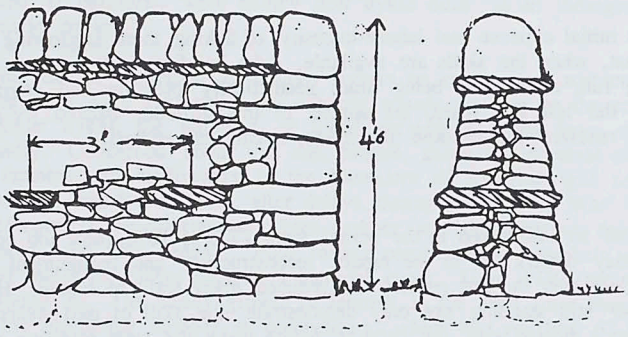


figure 3: Galloway double dyke

A rarer variation of the Galloway dyke is the single dyke, made from large rough boulders. It is a very stable structure but looks unsteady and, with the light shining through its gaps, is an effective deterrent to climbing sheep. A further variation combines a single dyke with a lower section of double dyking.

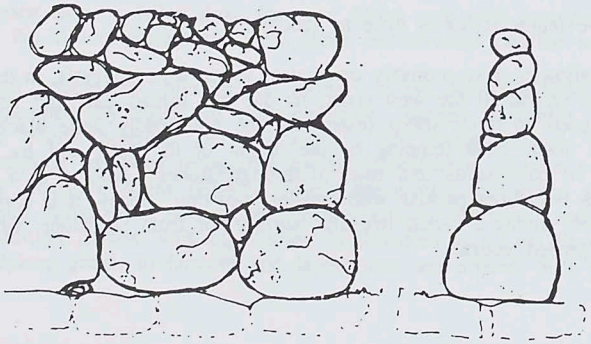
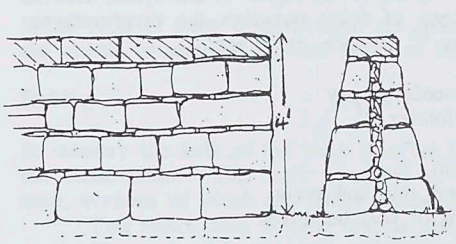
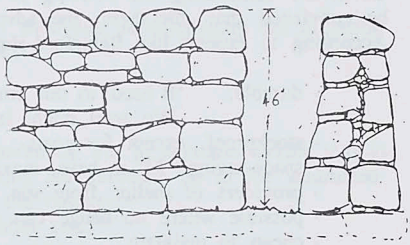


figure 4: Galloway single dyke

2. The Aberdeenshire dyke, typical of the north east, is designed to fence cattle. Again there are two forms, the 'course dyke' with trimmed quarry stones laid in regular courses, and the 'rough rubble' or 'dump and hole' dyke built from field stones. Both types use massive stones of the local granite. The dyke faces are smooth, with no projections for cattle or deer to rub or push against.





figures 5 and 6: Aberdeenshire course dyke Aberdeenshire rubble dyke

Other types of dyke found in Scotland include the Galloway hedge, a combination of dyke and thorn hedge useful for fencing along the contours of a hillside, and the Caithness flag fence, made from upright slabs stapled together at the top with metal clips.

The preceding figures also show the variations found in coping, ie in the stones laid along the top to finish the dyke. The Scottish speciality is the locked top, shown in figure 3, which was invented in the mid eighteenth century by John MacAdam of Craigengullich [18]. The large upright cope stones, usually whinstone, are locked firmly together by thin pinning stones driven between them.

Local building styles and stone availability are not the only factors which influence the construction and appearance of dykes. Topography may dictate that stretches of dyke are built against a bank as a retaining wall, or as part of terracing. Dykes may be built along the contours of a hill, or up a slope, or over undulating ground. Customer requirements, as well as terrain, may dictate special features, especially in a new dyke. Over a stream a grand archway may be wanted, or a simple smout (a small lintelled hole at the base). A right of way may require a stile, either one with staggered projecting footholds or a V-shaped 'squeeze stile'. Customers' specifications may stipulate gateways, the incorporation of large boulders, the circumvention of established trees, or the building of special features like a scuncheon (recess). Planting pockets or fancy coping may be required in garden walls. Amenity dykes,

[18]Rainsford-Hannay, op cit, 45

those visible from roadways or public paths, will have greater emphasis placed on appearance and blending with the surroundings since 'dry stone walls are a tourist attraction not so much in themselves as in the way they enhance the landscape' [19].

The dyke's function will have a large influence on its design, eg march dykes (boundary walls) are usually taller than sub-division walls. The need to keep stock in or out leads to design variations to counteract the climbing, jumping, pushing or burrowing skills of different animals. Occasionally it is necessary to provide extra height by inserting wired fence posts along the dyke top.

Customers considering the building of new dykes, or the repair of old dykes, need to be convinced that, for them, the advantages of dykes outweigh the disadvantages. According to experts like Rainsford-Hannay [20], drystane dykes are:

- durable: 'If heed to our sma' needs ye pay
  We weel micht last forever.'[21]
- stockproof, except for goats
- space-saving: 34" at base, maximum
- providers of shelter from sun, wind, rain and snow
- possible where no hedge can grow or post be driven
- cheap to maintain
- self-draining
- climbable without damage to dyke or climber's clothes
- made without imported material
- built with only a few tools: hammer, rough frame, string and foot rule
- fire-proof and can act as a fire-break unlike hedges or fences which may feed the fire[22].

To these merits the BTCV handbook, *Dry Stone Walling*[23] adds that dykes also provide:.

- windbreak for crops, helping prevent soil-blow
- valuable habitat for plants (especially lichens), insects, small mammals and other wildlife
- visual amenity, giving character to the agricultural landscape, even when neglected.

These same sources list the drawbacks of dykes, namely that they:

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[19]Lawrence Garner *Dry Stone Walls* (Aylesbury, 1984), Shire Publications, 4

[20]Rainsford-Hannay, op cit, 25-26

[21]John Wilson *Reflections of a Dry Stane March Dyke*, poem in The Galloway Gazette, (1951)

[22]Garner, op cit, 3

[23]British Trust for Conservation Volunteers *Dry Stone Walling,* (Wallingford, 1977), 29-37.

- shade and may inhibit the growth of immediately adjacent crops
- are not easily moved
- may block the efficient operation of farm machinery
- are laborious to build and, if stone must be bought, material and transport costs may be very high
- are subject to damage (as are cement walls, fences and hedges) by thoughtless, careless or deliberate vandalism, by animals digging or pushing on existing breaks, by vibration or direct hits from vehicles, by air pollution, by tree growth, by storm and flooding and by frost.

While most of these disadvantages are inherent in dykes, skilful dyking can minimise the effects of some of the last group of hazards.

Dyking

In masonry the bulk of the work is in the preparation, but in drystane dyking it is in the construction. The basic principles of dyking are summed up in the traditional song, versions of which are found throughout the country:-

Twa stanes abin a stane and ae stane abin twa,
Pin weel an' heart weel an' ye'll build a guid wa.

The first essential, as with any building, is a good foundation. For this a 'footing' of large flattish stones is laid in a trench dug along the line of the dyke, four inches deep and at least four inches beyond the wall width on either side. An A-frame is then set up and attached strings are stretched level to a second A-frame for new dykes, or to a broken section of dyke for repairs. These guide lines, moved up as the work proceeds, ensure that each course is level and that the correct inward slope of the dyke is maintained.

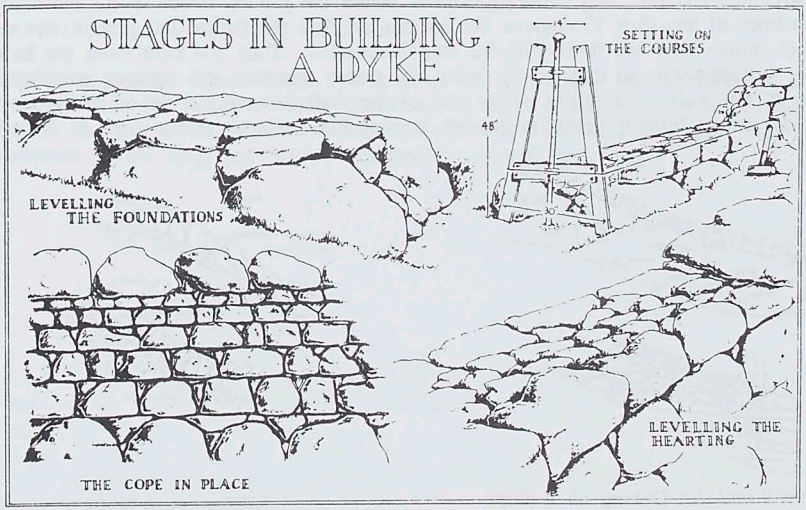


figure 7: Stages in building a dyke

Hearting, the invisible but essential component of any dyke, gives it strength. Small stones are wedged in to separate and support the facing stones on each side of the wall. In addition, they tilt the outer stones slightly so that water runs off and not into the dyke, thus preventing water and frost damage.

Throughbands, heavy stones at least as wide as the dyke, are built in at regular intervals, their weight straddling the wall to tie the sides together. Coverbands serve the same purpose at the top of the wall, where they provide a surface for the coping. The cope stones weigh down the courses below, bonding the sides together and protecting the facings and heartings from weathering.

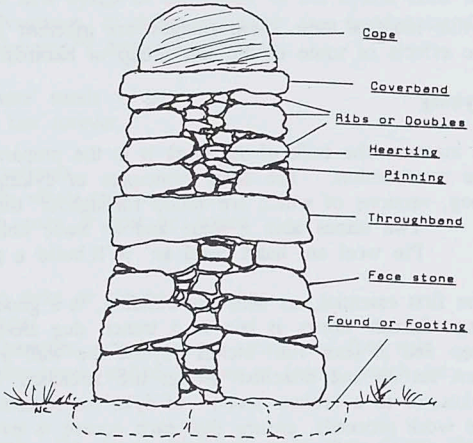
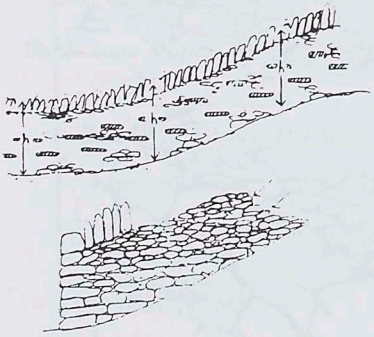
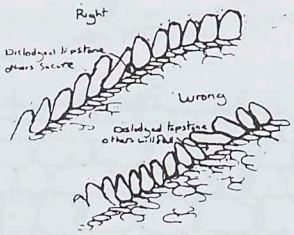


figure 8: Basic parts of a dyke

Construction methods may need adjustment where the ground is not level. Normally on inclines of less than 15 degrees the courses are laid parallel to the ground, but on steeper slopes they are level with the true horizontal. They are built from the base of the hill upwards, so that gravity holds the stones together and tightens completed parts of the wall as it settles. The top of the wall follows the lie of the ground, with the copes leaning uphill to prevent domino-like collapse if one cope is shifted.





figures 9 and 10: Dyking on a slope

Coping up a slope

Once built, a good dyke is there to stay, testifying to the quality of the workmanship. The dyking process is simple. An experienced dyker, describing his work, said:'Ye just keep yer heid doon and yer hauns gaun'. The skill lies in the selection and placing of stones. As in other crafts, it is speed and accuracy which identify the expert's performance.

In skilled hands drystane techniques can create structures far more complicated than walls. In recent years dykers have been involved in the recreation of a hill fort, in the restoration of a drystane village and in the creation of sculptures, the latter demonstrating drystane dyking's potential in art.

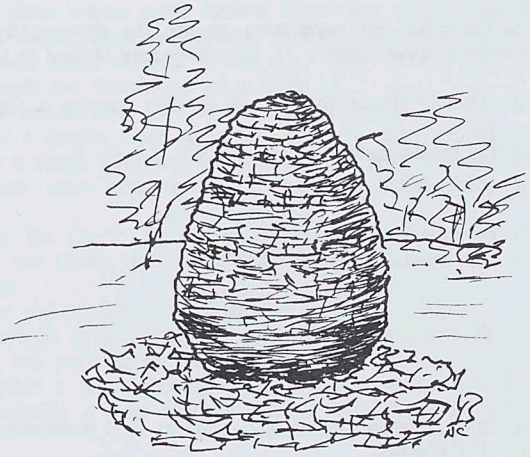


figure 11: 'Slate Cone' by Andy Goldsworthy

While there may be debate about dyking as an art form, there can be no doubt that it is a craft. In the words of Robin Callander, it makes: 'simple use of local natural materials in an enduring, functional and aesthetic way that relies on human skill and satisfaction, rather than any outside equipment, material or energy'[24].

[24]Callander, op cit, 71

Illustrations

Grateful acknowledgement is made to:

- The Society of Antiquaries of Scotland for permission to print figure 2, Reconstruction of the Drumcarrow house, Fife, from the article by G S Maxwell, op cit.

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- Robin Fraser Callander for permission to use the drawing by Dave Smith, Stages in building a dyke, (figure 7), from *Drystane Dyking in Deeside*, op cit.

- The Pentlands Dyking Group for the use of their logo as a page heading.

Figures 1, 8 and 11 are by the author.

Glossary reproduced from *Drystane Dyking in Deeside* by kind permission of its author and publisher, Robin F Callander.

[i] *Some words associated with drystane dyking*

Backit-dyke: a face of stones with earth piled behind.
Band: a binding stone or throughband (qv).
Batter: the slope or inclination of a wall.
Batter frame: wooden frame made to the shape of a section through a wall and used in the construction of a wall.
Beildie side: the sheltered side of the dyke.
Breaking joint: Placing one stone over the gap between two.
Buck and doe: alternating upright and horizonal cope (qv) stones.
Catchie: small mason's hammer.
Cheek: the end face of a length of wall.
Chipen: an uneven sided chisel used for putting batter on a stone.
Clonk: any large stone taking up the width of the dyke below the cope.
Clap dyke: earthen dyke so called as 'clapped' with spade to make it solid.
Cock and hen: see 'buck and doe'.
Comble-stane: the top stone of a pile.
Consumption dyke: a dyke built wider than normal to accommodate extra stones.
Cope: the larger stones that are locked together along the top of a dyke.
Coverbands: wide, flat stones laid across the dyke, in some districts, before the cope.

Cowan: a builder of drystane dykes.
Cundy: a small passage or drain under a dyke.
Cutting the found: reducing width of foundation when rebuilding a dyke.
Double dyke: the common dyke with two outside faces.
Dump and Hole: style of dyking that does not aim at courses.
Dyke inhauld: enclosed with dykes.
Dyke louper: a fence breaker, or an animal given to leaping fences.
Dykesheugh: a trench or ditch alongside a dyke.
Dyket about: enclosed with dykes.
Dyky: having many dykes.
Ell: a Scottish measure, equivalent to 37.6".
Face stone: a stone whose outer surface forms part of the face of the dyke.
Faced dyke: a single faced wall up one side of a ditch or trench.
Feal dyke: a wall made entirely of turf.
Foond, or Found: the foundation of a dyke.
Fleet dyke: an embankment to prevent erosion.
Galloway-dyke: a double dyke up to 40" in height, then capped with a 2" coverband and built with a single thickness for a further 22"; the light coming through the top, making it appear more insecure than it in fact is, deters sheep from trying to jump it.
Garadh droma: the Gaelic for a dyke of stone or turf between crofts.
Garadh dubh: the Gaelic for a turf dyke between outruns and moorland to protect autumn pasture.
Gate-head: the end of a dyke at a gate.
Gersty (or Gorsty): a ridge of earth and stones covered with grass, or just an old decayed dyke, left unploughed as a boundary.
Glip (or Glippik): a small opening or broken part in the top of a dyke.
Gorbak (or Garbak): a ridge of earth thrown up as a boundary between two patches of arable.
Greep (or Groop): a small drain, often beside a dyke.
Grit: the coarseness of a rock's grain.
Half-dyke: a single sided dyke, backed with settled earth and turf.
Ha-ha: a sunk-dyke (qv).
Head-dyke: the dyke separating off the hill ground.
Hearting: the small hard stones tightly packed into the centre of a dyke.
Jumper: a long pointed rod used for beating holes into rocks.
Lift: the point where a dyke comes above ground.
Lipped-dyke: a dyke dry in the middle but limed at the edge.
Lunky: a hole set in the base of a dyke to give a passage for sheep.
March dyke: a dyke between two properties, often more substantial than a normal dyke.
Mash hammer: a heavy hammer used for crushing stones for hearting.
Mett: a boundary stone, or, as a verb, to measure a boundary.
Pinnings: small stones used to fill gaps between the face stones of a dyke.
Poacher biggit: a piece of dyke roughly piled up. A poacher pulls down a piece of dyke to get a snared rabbit and then decides when he's leaving that he'd better quickly stack it up again.
Quarter: a measure. Refers to a quarter of a yard ie 9".
Random dyke: dyke built with no attempt at course. Also referred to as a random rubble dyke.
Redd out: to lay out or prepare the day's work.

Ribs: the external walls of a dyke.
Rickle dyke: just a pile of stones, with no structure to it, though firm at base.
Rood: measure of length reckoned equivalent to a day's work, (7 yards in limestone districts, 6 yards in granite).
Runner: long face stone in the end of a dyke.
Scarsement: extra width at the base, which is the difference between the width of the foundations and the width above ground, normally about 2".
Sconce: to make scuncheon (qv).
Scuncheon: an internal reveal or recess in a dyke or wall, such as in a house for a window or door. Also the open unfinished end of a dyke.
Scutch: to roughly dress a stone.
Slap: a gap in a dyke.
Sleek (or Sleekit): smooth, said of neatly built dyke. Such a dyke is said to be 'Weel-skinned'.
Slipe (or Slype): a wooden platform used without wheels as a kind of sledge, the side shafts being heavier at the end pulled along the ground and smaller where they were harnessed to a horse. So many 'slipe draughts' was used as a measure, with each being equivalent to three cwt or so. Also used as a verb ...'I was slyping stones to the dyker'.
Smout: a passage through a dyke, for water, setting rabbit traps, etc.
Sneck: to pin or fill gaps between large stones with small ones. Also a portion of wall built with single thickness of stones.
Sned: to hew off stones with chisel.
Stell-dyke: a circular dyke forming a sheep enclosure normally 20-40 yds in diameter and with a 3' entrance on the lee side. Mentioned in the Napier Report as being advocated after the disastrous winter of 1620. A flank or beild.
Stoop (or Stoup): a large monolith set into the ground against the head of a dyke.
Sunk-dyke: see 'faced dyke'.
Throughband: long, flattish stones slightly wider than the dyke, that are set through it at centres of 36" or less to help bind the dyke together.
Tie: a throughstone used in a wall head.

[ii] *Some sayings associated with dykes.*

'to be ower the dyke': to be dead and buried.
'gane to the bane-dyke': reduced to skin and bones, or fit only to be buried in the dyke; comes from the tendency of some to bury dead stock in old dykes as many bones testify.
'to loup the dikie': to die.
'a dyke louper': an immoral or loose person, a transgressor.
'to run the double dykes': to rove about or fool around.

Dinna lay a stane abuin a stane
Lay ae stane abuin twa
Cairry on daein' that
An suin ye'll hae a wa'. (Anon.)

THE HOUSE BOOK OF HOLM
AN ORKNEY MISSING LINK?

Alison and Paul Newman

Many commentators have noted that traditional buildings in Orkney differ from those in the Scottish mainland, even those in neighbouring Caithness, by having no trace in the extant buildings either of turf walling or of Highland couple, or cruck, roof construction. These are linked features; the purpose of the couple or cruck is to carry the weight of the roof on the timber legs, so allowing the walls to be made of materials such as turf which cannot bear the weight of the roof.

In Caithness there are still turf gables to be found. There is a group on Strathy point, which is directly opposite Orkney on the North coast, and stone buildings remain with couples, remnant timbers or cruck slots, depending on their state of dilapidation. Our recent extensive field work in Orkney produced no evidence of such timbers or slots and none of turf in walls. There is turf in roofs and the use of turf in roofs is well within the memory of older Orcadians who know how to cut pones and use them in roofs. We did meet one man in his nineties who told us of being taken when a small boy to look at a black patch in a field and being told that that was where his grandfather's *feal* (turf) house had stood but otherwise no recollections were forthcoming.

The questions arise: did Orkney always have a different tradition, or were there couples and feal in Orkney buildings at one time? And if there were, why are there no remains?

In the extensive archives from the Graemeshall estate, in Holm in the South East Orkney Mainland, which are now housed in the archive of Orkney Library is a small notebook which contains entries in a variety of hands from 1711 to 1762 noting the state of the farms as tenants came and went. It is titled in a contemporary hand *The House Book of Holm*[1]. There are three groups of entries, 1711-18, 1726-35, and 1750-1762. The entries follow a set style (see illustration) giving the name of the property, the date of inspection, the names of the lawrightmen carrying it out and the names of the outgoing and incoming tenants. The buildings are then itemised in a standard order, firstly the elements of the dwelling, *fyr house* and *sellar* with an occasional *chamber*, then the *steading*, *byre(s)*, *barn* and *stable(s)*. The inventory concentrates on the timber elements, particularly the roof timbers, and notes general condition. Constructional information has to be gleaned from occasional references, for example, to *thak* (thatch) , *strae* and *symmons* for roofs.

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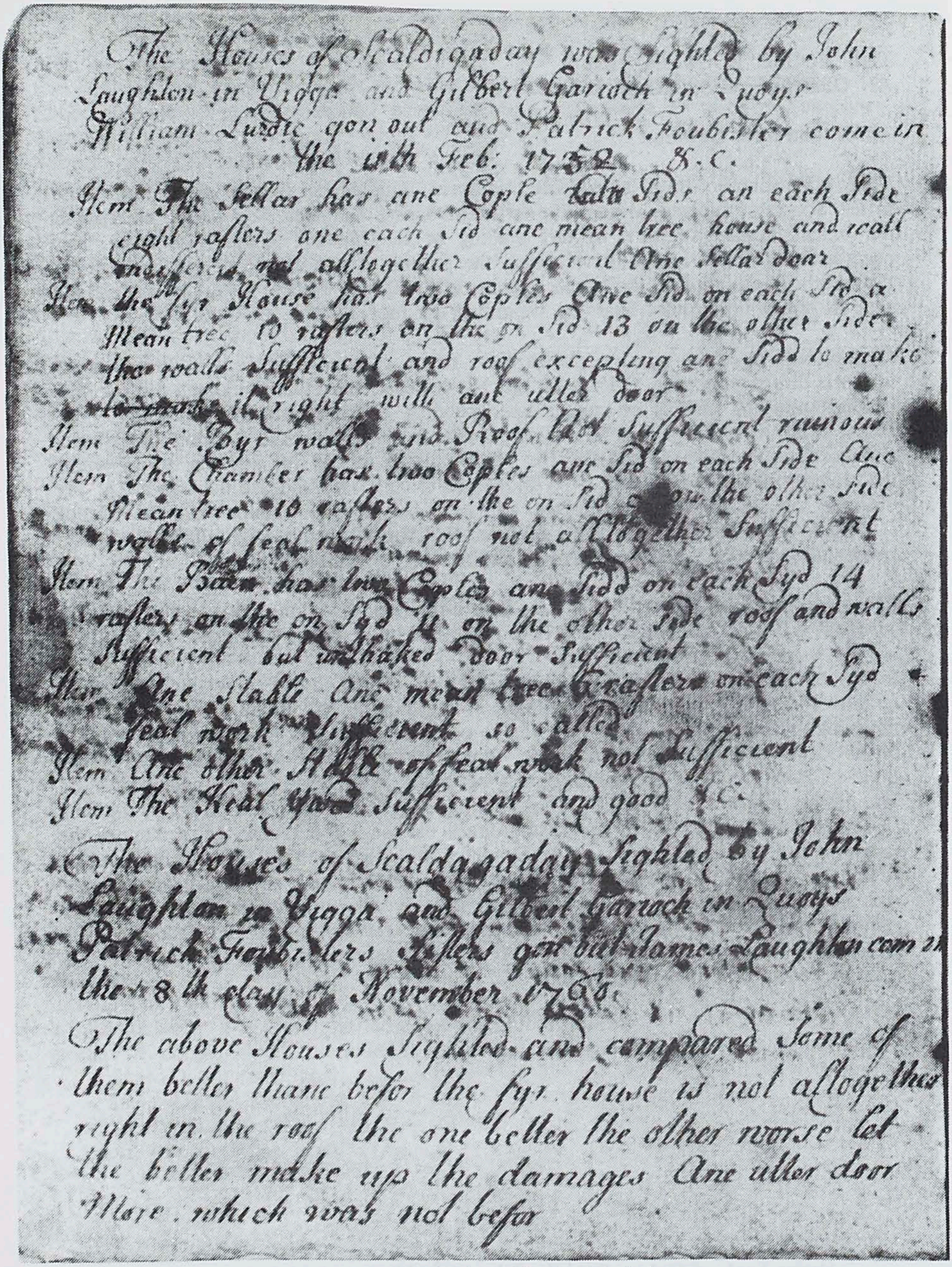
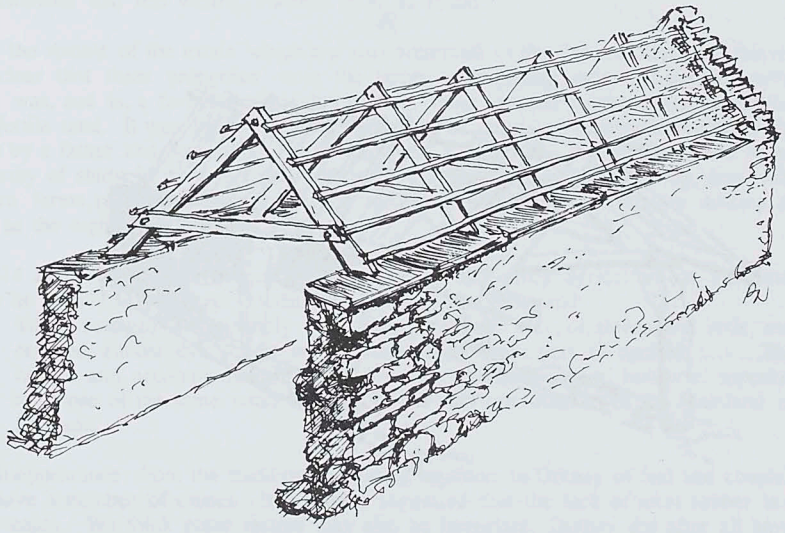
[1] ***House book of Holm***:- D/11/3 Orkney Archives, reproduced and discussed by permission of Kirkwall Library.


The Houses of Scaldigaday was Sighted by John
Laughton in Viggo and Gilbert Garioch in Quoys
William Ludie gon out and Patrick Foubister come in
the 11th Feb: 1752 &c.
Item The Sellar has ane Cople tailt Side an each Side
eight rafters one each Sid ane mean tree house and wall
insufficient not alltogether Sufficient One Sellar door
Item the fyr House has two Coples One Sid on each Sid a
Mean tree 10 rafters on the on Sid 13 on the other Side
the walls Sufficient and roof excepting ane Sido to make
~~to make~~ it right with ane utter door
Item The fyr walls and Roof but Sufficient rainous
Item The Chamber has two Coples ane Sid on each Side Ane
Mean tree 10 rafters on the on Sid [illegible] on the other Side
walls of feal wark roof not alltogether Sufficient
Item The Barn has two Coples ane Sidd on each Syd 14
rafters on the on Syd 11 on the other Side roof and walls
Sufficient but unthaked door Sufficient
Item Ane Stable One mean tree [illegible] rafters on each Syd
feal work Sufficient so called
Item One other House of feal work not Sufficient
Item The Keal yard Sufficient and good &c
The Houses of Scaldagaday Sighted by John
Laughton in Viggo and Gilbert Garioch in Quoys
Patrick Foubisters Sisters gon out James Laughton com in
the 8th day of November 1765
The above Houses Sighted and compared Some of
them better thane befor the fyr house is not allogether
right in the roof the one better the other worse let
the better make up the damages One utter door
More which was not befor

Photograph of page of House book of Holm - Transcript below
This photograph is reproduced by kind permission of the Orkney Archive, Kirkwall

The Houses of Scaldiquday was sighted by John Laughton in Vigga and Gilbert Garioch in Quoys William Lurdie gon out and Patrick Foubister come in the iith day of February 1752 &c
Item The Sellar has ane Cople Ane sids on each side eight rafters one each sid ane mean tree house and wall indifferent not altogether sufficient Ane sellar door
Item the fyr House has two Coples Ane sid on each sid a Mean tree 10 rafters on the on sid 13 on the other side. The walls sufficient and roof excepting ane sidd to make it right with ane utter door
Item The Byr walls and Roof Not sufficient ruinous
Item The Chamber has two Coples ane sid on each side Ane Mean tree 10 rafters on the on sid 9 on the other side walls of feal work roof not altogther sufficient
Item The Barn has two Coples ane sidd on each syd 14 rafters on the on syd 11 on the other syde roof and walls sufficient but unthaked door sufficient
Item Ane Stable Ane mean tree 6 rafters on each syd feal work sufficient so called
Item Ane other Stable of feal work not sufficient
Item The Keal Yard sufficient and good &c

The roof structure in extant Orkney buildings is described in our article in *VB 16*[2]. The predominant type consists of A-frame couples resting on the wallheads and horizontal laths, either five or six per side which support the roof covering of thatch or flagstone.

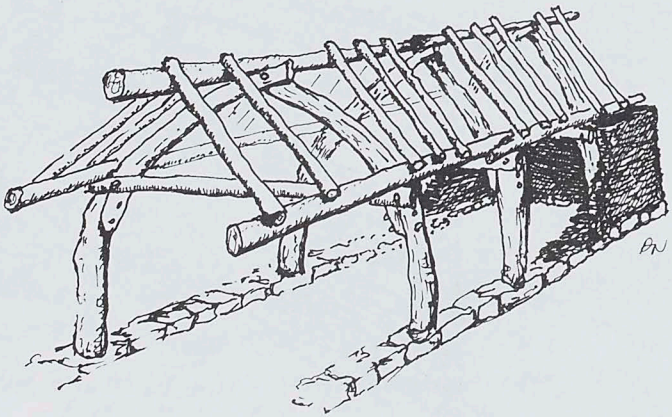


Typical roof timbers in extant Orkney traditional buildings

[2] Paul and Alison Newman; 'Roof types in the Traditional Rural Buildings of Orkney', ***Vernacular Building 16***, (1992)

Such roofs do not have a ridgepole or main (mean) tree, though we have heard the ridge of a roof of this kind referred to in conversation as the *maintree* - perhaps an interesting linguistic survival. It is also an unusual use of the word *couple* to apply it to an A-frame, this may also be a survival from the earlier form.

The description of the roof timbers in the *House Book of Holm* does not tally with the extant roofs. What are *sidds* ? A *mean tree* is presumably a ridge pole. Rafters today are timbers which run from the wall head to the apex of the roof, could these *rafters* be similar? The description is suggestive of the kind of structure found where couple/cruck construction is used, for example in the dwelling preserved at the Scottish Agricultural museum at Ingliston, the buildings at Auchendrain in Argyll, or the recently conserved building at Torthorwald in Dumfries where the couples are of an English type. We suggest that the structure being described might have looked something like this:-



Conjectured roof construction for the buildings in the House Book of Holm

There are some references at all periods in the book to a different roof construction with couples, meantree and *laths* or *lathin* without sidds or rafters. These are few in number. The structure sounds comparable to the structure in extant roofs, except that these do not contain a meantree as a structural member. Curiouser and curiouser!

The references to feal and feal work are scattered through the book. Most are to steading buildings, particularly to stables as in the illustration. There are two references to feal in dwellings, one in this example where the feal is found in the Chamber ie the housing of farm servants. The other reference occurs in the survey of Blomore in 1753:

> *Item Ane House there Margaret Sinklair put up upon her own proper charge It has ane Cople A mean tree 6 rafters on each syd an door All of it Feal work bestowed on by her Charity* (sic)

We do not know who Margaret Sinklair was. The outgoing tenant was William Sinklair.

There are also occasional references to roofs which are sufficient where the walls are 'falling' or 'not sufficient' indicating the roof is not dependent on the walls for its structural stability. Other than the scattered references to feal, many of which have the derogatory tone apparent in the examples given, there is no reference to the construction of the walls, no mention of stones or masonry. It is tempting to conclude that masonry was the norm and that the references to feal occur where this, by now old fashioned and less valued, material is to be found.

From the rentals of the estate which are also preserved in the Orkney Library Archives it is clear that these properties were the larger ones paying more substantial rents. Holm was, and is, a favoured agricultural area, lying exposed to the South and West with fertile land. It was one of the early estates to be improved comprehensively in the 1820s by a father and son called Petrie who were the factors - the story of these times is worthy of study in its own right- and today continues to be a prospering area with modern farms retaining few examples of traditional buildings and certainly nothing as early as the eighteenth century.

In 1814 John Shirreff[3] in an essay largely critical of Orkney agriculture at the time, which he clearly saw through southern improving eyes remarked:

> These cottages are generally built with stones and clay, or stones and sods, and covered almost every year with a little fresh straw very ill applied .....The houses and accommodation of the Orcadian peasantry seem, however, superior to those of the same ranks in some of the northern districts of the Mainland of Scotland.

The disappearance from the traditional building tradition in Orkney of feal and couples may have a number of causes. It is usually suggested that the lack of local timber is a prime cause. We think other factors may also be important. Orkney did after all have access to wrecks and driftwood and to Scandinavian imports, and Caithness and the Western Isles also have few natural resources in timber.

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[3] John Shirreff; *General View of the Agriculture of the Orkney Islands with observations on the means of their improvement: drawn up for the Consideration of the Board of Agriculture*, (Edinburgh, 1814), 10

Building stone is both accessible and easily worked in almost all of Orkney. When we consider the availability of feal we find that there was considerable pressure on this resource. Feal could be cut from the hill ground or from Township land. Cutting feal is a destructive process rendering the land scalped and muddy. The grazings were under pressure, particularly as the numbers of cattle kept rose in the nineteenth century, as did the population dependent on agriculture. Feal was in demand as fuel, particularly where no peat was available, it also served as byre bedding as well as in roofs. The estate records and the Sheriff Court records of the nineteenth century reveal steady pressure to prevent the cutting of feal and the consequent degradation of the land. We would suggest that the relative shortage of this material could well account for the development of the Orcadian needled thatch roof, where the turf in the roof is replaced by straw rope, and is possibly instrumental in the early disappearance of turf from wall construction - see our article in *VB 15*[4]. Once walls were made of loadbearing stone there was no need for couple legs to carry the roof and the A-frame couple and lath construction which is more economical in timber could predominate. It may be that the restriction on the availability of turf was a key factor in the accelerated change to the style of building we now think of as typically Orcadian.

Our conclusion is that the documentary evidence now suggests that there was a time when traditional buildings in Orkney were made using couples and turf walling as in the rest of Scotland. Their disappearance at an early period which can be attributed to a number of interacting forces and circumstances outlined above has led commentators to see the tradition in Orkney as more different for longer than it may be. We suggest that what is now thought of as the prevailing traditional Orkney form may be a product of the last two centuries and of the period of agricultural improvement in the mid nineteenthth century in particular.

[4] Paul and Alison Newman; 'Simmens and Strae: Thatched Roofs in Orkney', *Vernacular Building 15*, (1991)

QUANDAL; THE BUILDINGS IN A PRE-IMPROVEMENT AGRICULTURAL COMMUNITY ON ROUSAY, ORKNEY.

Paul and Alison Newman

The one area in Orkney which suffered a Highland style clearance was Quandal on the island of Rousay in 1845. It has not since been reoccupied, remaining rough grazing to the present day. The clearance and the troubles during the later lairdship of General Burroughs figure in the evidence to the Napier Commission. The history of Rousay in this turbulent period is to be found in WPL Thomson's *The Little General and the Rousay Crofters*[1]. Much of the historical information about Quandal in this article is drawn from Thomson's books[2].

Old farm buildings, many unoccupied and roofless, abound throughout Orkney. It is difficult to date these buildings and the subsequent alterations. The particular interest in Quandal is that the process of change stopped quite abruptly in 1845 and there is still sufficient evidence in the ruins to draw some conclusions about the design of the buildings and to see them in the context of a more cooperative style of agriculture which preceded the introduction of enclosure of common land, sub-soil drainage and long-term leases.

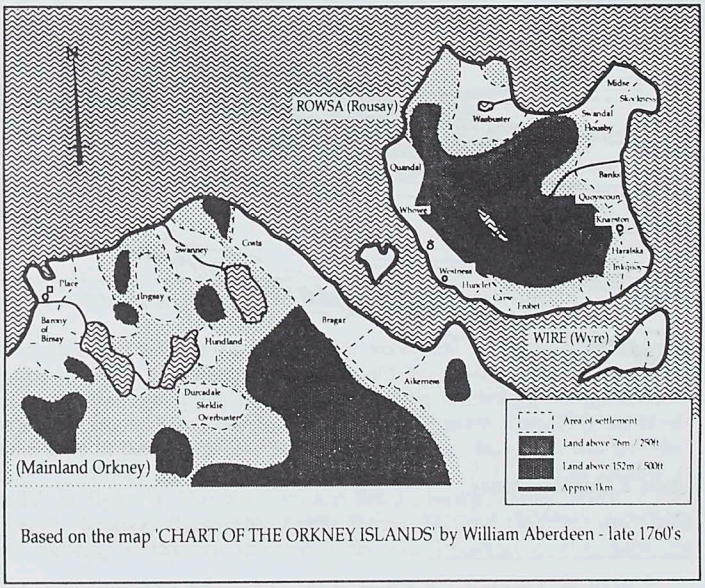

Figure 1 'Chart of the Orkney Islands'

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[1] William PL Thomson, *The Little General and the Rousay Crofters*, (Edinburgh, 1981) John Donald

[2] William PL Thomson, *History of Orkney*, (Edinburgh, 1987) The Mercat Press and also *The Little General and the Rousay Crofters*

Quandal is a district of some antiquity, figuring in sixteenth century rentals and appearing in *A Chart of the Orkney Islands with estate boundaries shown*[3] drawn by the Surveyor William Aberdeen for Lord Dundas about 1766. Figure 1 is based on a part of the Aberdeen map. It can be seen that settlements tend to occur around the coasts of the islands. This is particularly the case on Rousay where the land rises steeply in the centre. In pre-improved agriculture the cultivated land is on the lower slopes of hillsides with common land on the higher slopes and on any flat land. With modern agricultural land invisibly drained with sub-soil drains and with a level surface it is easy to forget the importance of drainage in making land cultivable. The dwellings and other farm buildings would typically be strung out along the contour between the lower slopes of arable land and the higher hill ground. This is evident at Quandal and in the Aberdeen maps for reallocation of land in the Barony district[4] on the mainland. Another example is the pre-improvement settlement at Redland on the mainland described in John Firth's *Reminiscences of an Orkney Parish*[5].

Figure 2 Quandal today

[3] William Aberdeen, *A Chart of the Orkney Islands with estate boundaries shown*, a map prepared for Lord Dundas in 1760s, held in the Orkney Archive, Kirkwall.

[4] Aberdeen maps for reallocation of land in th Barony district prepared for Lord Dundas, held in the Orkney Archives, Kirkwall

[5] John Firth, *Reminiscences of an Orkney Parish*, (Stromness, republished 1974) Orkney Natural History Society

As can be seen in figure 2, Quandal is today a rather bleak hillside of grass and heather providing grazing for cattle and sheep. From the road there is little sign of habitation apart from the dark walls of Tafts in the distance, a two-storeyed mansion house with walls 800mm thick and of considerable age (seventeenth or eighteenth century perhaps). The remains of turf and stone hill dykes are visible on either side of the road. In the distance above Tafts, can be seen patches of green above the heather and if the sun is shining, it may be possible to discern heaps of stones which mark the sites of some of the buildings which stood there in 1845.

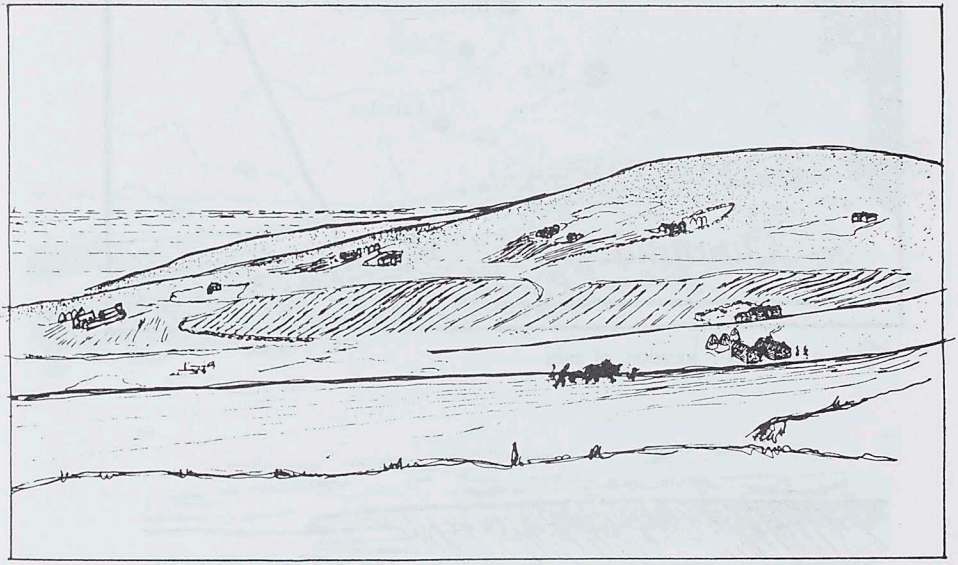

Figure 3 Quandal as it may have been in the early nineteenth century

Figure 3 shows the Quandal hillside from a similar viewpoint as figure 2, as it might have appeared prior to 1845. The flatter ground would have been very marshy. After clearance, 45 miles of drainage channels were cut taking advantage of government drainage loans available from 1846. Prior to 1840 there were more than 20 farms below the hill dyke. By the time of the clearances, some of the holdings had been amalgamated to around 13 farms[6]. Of these, there are recognisable remains at 10 sites as located on the map of Quandal in figure 4. The ten sites are Breck, Breek, Lower Breek, Cairn, Croolea, Dale (Deall), Hestival (Hestivall), North House, Starling (Stirling) and Tafts. The most obvious building is the two storeyed Tafts with its adjacent kiln, barn and byres - Figure 5.

[6] William PL Thomson, *The Little General and the Rousay Crofters*

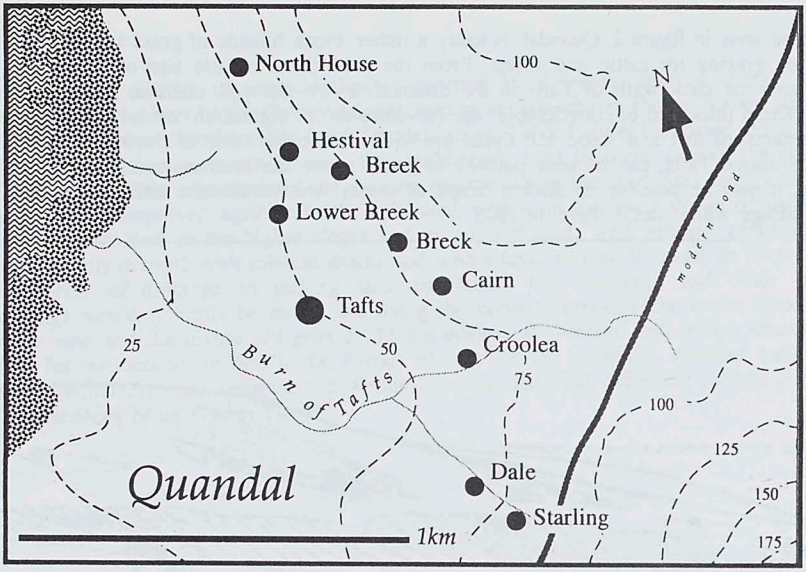

Figure 4 Quandal: location of sites

Figure 5 The ruins of Tafts

Figure 6 The ruins of Breck

The ruined buildings

Figure 6 is a view of Breck with the remains of the kiln at the higher end. The kiln adjoins the barn and a flagstone projects from the kiln wall which would have been part of the roof of the peat neuk beside the kiln. The winnowing door can be seen at low level in the wall of the barn. Figure 7 shows a view from inside the barn at North House looking at the remains of the kiln and the peat neuk. Also visible is the fire hole for the kiln and what is probably a *quern ledder* (triangular shelf for the quernstones).

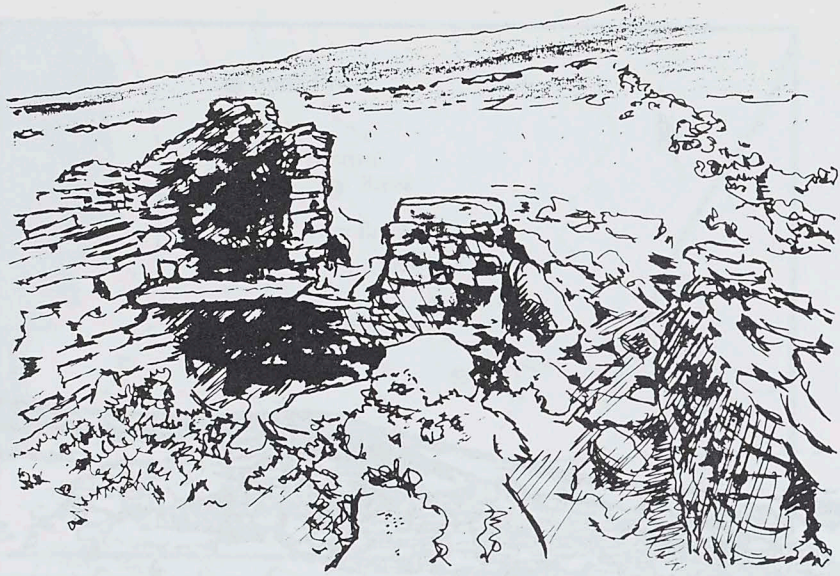

Figure 7 View from inside the North House barn looking towards the kiln

These views are of the Quandal ruins as they appeared in 1991. With the aid of an aerial photograph of the area together with the first Ordnance Survey and information about the estate in WPL Thomson's book[7] about Rousay in the nineteenth century, it is possible to identify field and hill dykes, and also to see the pattern of the old rigs and to distinguish them from the extensive drainage work carried out shortly after the clearance. This reconstructed map is shown in figure 8.

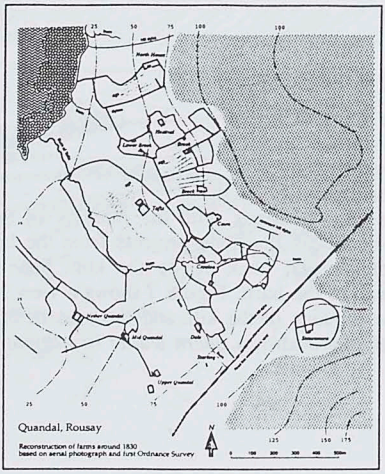

Figure 8: Farms around 1830

[7] William PL Thomson, *The Little General and the Rousay Crofters*

We have surveyed these ruins in rather summary fashion and photographed them. Plans and sketches of the ten groups of buildings are shown in figures 9, 10 and 11. Some features of the reconstruction are necessarily speculative. We were not able to find some of the doorways, so the expected locations of these are shown in a lighter shading than that of the walls. What remains are walls of stone about 600mm wide with clay packing up to about eaves height in a few places, but mostly broken down to a level about 1m or lower. There is the occasional flagstone cantilevered from the wall of a kiln to suggest a flagstone roof to a peat neuk.

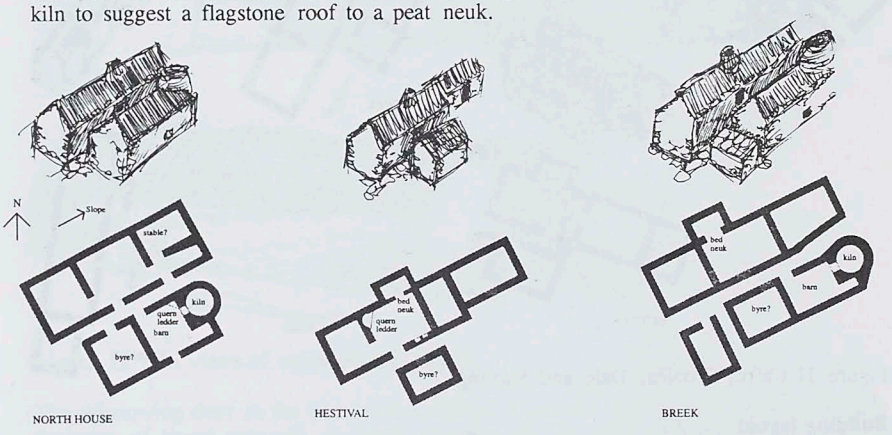

Figure 9 North House, Hestival and Breek

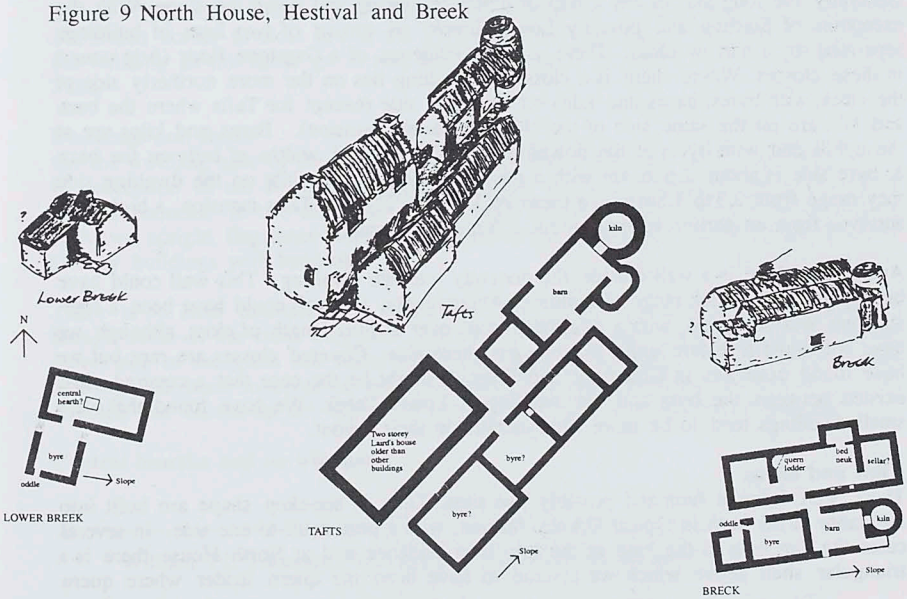

Figure 10 Lower Breek, Tafts and Breck

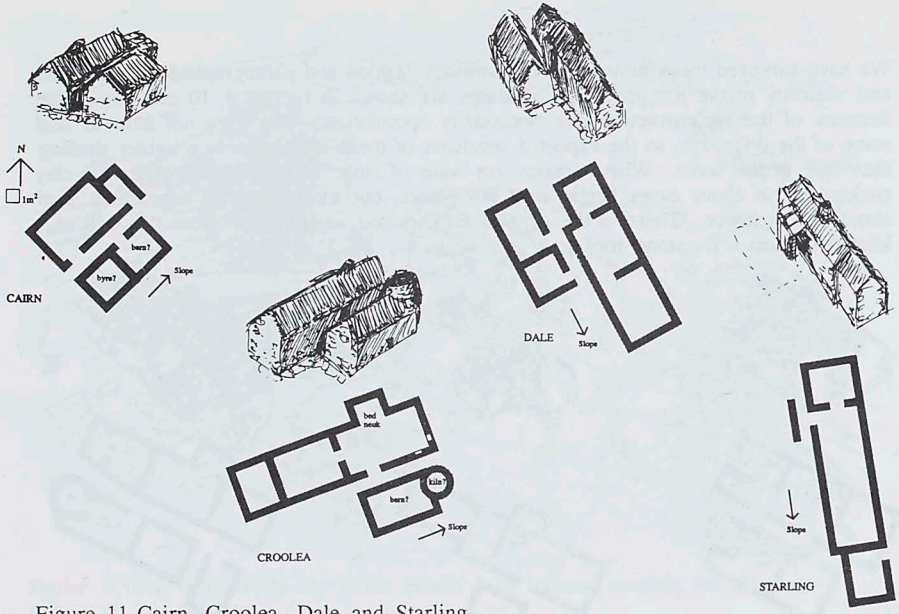

Figure 11 Cairn, Croolea, Dale and Starling

Building layout

Generally the long axis of any group of buildings lies up and down the slope. With the exception of Starling and possibly Lower Breek, all consist of two lines of buildings separated by a narrow closs. There is some evidence of a flagstone floor (*brig stanes*) in these closses. Where there is a closs, the dwelling lies on the more northerly side of the closs, with byres, barns and kilns on the other side (except for Tafts where the barn and kiln are on the same side of the closs as the old mansion). Barns and kilns are at the uphill end with byres at the downhill end. The internal widths of cells on the barn & byre side is about 2.6 to 4m with a mean of 2.9m (9'6"), while on the dwelling side they range from 2.3 to 3.8m with a mean of 3.1m (10'2"). The Tafts mansion, a high class survivor from an earlier time, is about 3.5m wide internally.

At Starling there is a wall outside the doorway into the dwelling. This wall could have been part of a parallel range of building. Alternatively, the wall could have been a free-standing weather break with a flagstoned roof over a short length of closs, although we have not found a feature quite like this anywhere else. Covered closses are rare but we have found examples in Graemsay and Eday. It might be the case that a covered closs existed between the byre and the dwelling at Lower Breek. We have found that very small dwellings tend to be more idiosyncratic in their layout.

Kilns and barns

There were kilns at four and possibly five sites. Kilns of bee-skep shape are built into the gable of the barn in typical Orkney fashion, with a peat neuk to one side. In several cases the fire hole to the base of the kiln is in evidence and at North House there is a triangular shelf above which we assume to have been the quern ledder where quern

stones were located. The kiln and barn at Tafts are larger than the others. This will be the kiln and barn referred to by Thomson as being built in 1842[8].

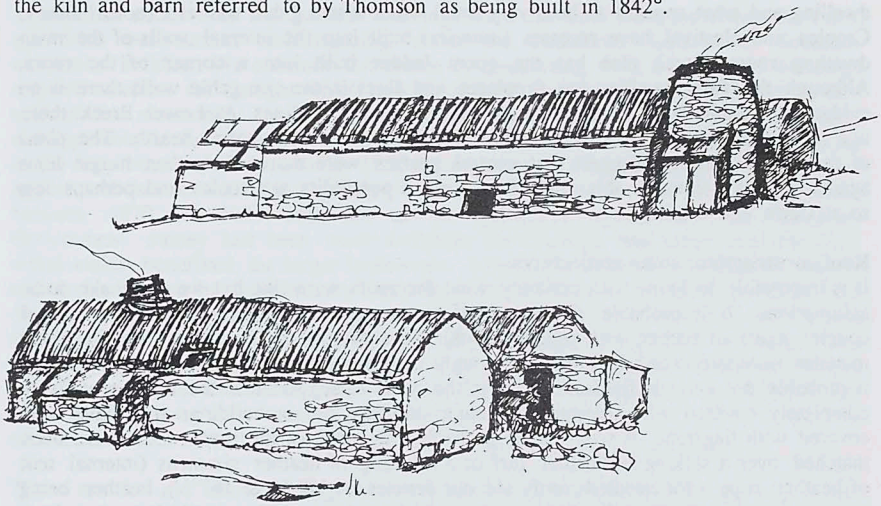

Figure 12 Two views of reconstructed Breck

The winnowing door in the barn wall is evident in several cases and an oddle hole (for drainage of liquid manure) at Breck confirms the downhill location of the byre. A feature frequently found in traditional farm buildings in Orkney is a rounded or chamfered corner to closs side of the byre to reduce the damage done to the corner of the building as the cattle go in and out. This feature is present at North House and Tafts.

Dwellings and Byres

On the dwelling side of the closs is a three- or four-celled building or buildings, with the exception of the single cell at Lower Breek. In four of the dwellings there is an outshot bedneuk. In two cases the interior wall and opening to the bedneuk is formed with two upright flagstones with a gap between them, a feature to be found in other Orkney buildings with bedneuks.

There is no clear example of a single door into dwelling and byre shared by cattle, though some of the ruins may have had such a feature, particularly if the byre on the other side of the closs had been added later. By 1846 Cairn, Croolea, Hestival and Starling had been involved in amalgamations with neighbouring farms; and in 1841 Croolea and Cairns do not appear to be inhabited, unlike Hestival and Starling[9].

Central hearths and no windows

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[8] William PL Thomson, *The Little General and the Rousay Crofters*, 47

[9] William PL Thomson, *The Little General and the Rousay Crofters*, 47

None of the dwellings appears to have windows in the walls, apart from the Tafts dwelling and what appears to be a very small window in a gable wall at Croolea. Breck, Croolea and Hestival have recesses (*aumries*) built into the internal walls of the main dwelling room. Breck also has the quern ledder built into a corner of the room. Although the Tafts dwelling has fireplaces and flues in the two gable walls there is no evidence of gable wall fireplaces in any of the other dwellings. At Lower Breek there is a large rectangular stone in an appropriate location for a central hearth. The plans of the other dwellings suggest that central hearths were more likely than hingin lums against a gable, although this might have been a possibility at Croolea and perhaps less so at Cairn and Starling.

Roof construction: some conjectures

It is impossible to know with certainty what the roofs were like but we can make some assumptions. It is probable that the roof structures throughout would be A-framed couples made of timber with pegged joints. The surviving gable chimney stalk at Tafts includes *waterberges* and this feature strongly suggests a thatched roof. Generally, there is probably not enough flagstone lying in the ruins to suggest that the main roofs were completely covered with flagstone, although outshots and outbuildings may have been covered with flagstone. It seems most probable that most of the roofs would have been thatched over a sarking of heather turf or a needling of heather simmens (internal tent of heather rope - for needled roofs see our articles in *VB* 15 & 16[10,11]), heather being abundant on the nearby hills. Flagstones would have been used as wall plates and there would probably have been a row of flagstones resting on edge on the wall plates if the roofs had been needled with simmens.

Whether roofs were sarked with turf, needling or flagstone, they would also be covered with thatch (probably straw in the Quandal situation) and then secured with an outer layer of heather or straw ropes weighted with bendlin stanes along the eaves. It is possible that some light would be admitted into the dwellings and other buildings with small rooflights framed by pierced flagstones just above the eaves.

The flues for the central hearths would be constructed on a wood framework, thatched and lashed with simmens. We would expect the kilns to be capped with an annulus of turf, with perhaps a barrel or wooden box as a chimney.

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[10]Paul & Alison Newman, 'Simmens and Strae: Thatched Roofs in Orkney', in *Vernacular Building 15*, (1991), 27-40

[11]Paul & Alison Newman, 'Roof Types in the Traditional Rural Buildings of Orkney, in *Vernacular Building 16*, (1992), 39-55

Conclusion

These ideas about what the Quandal buildings were like stem from inspecting the ruins, and from our current understanding about the traditional features of Orcadian vernacular building. We conclude this article by considering what the Quandal buildings may tell us about the changes which took place after the agricultural reforms in the first half of the nineteenth century. Agricultural reform in Orkney, despite some early developments in the eighteenth century did not sweep the islands until after the collapse of the kelp boom around 1830. By 1850 the economy had started to grow again in the agricultural sector with the expanding export of beef cattle. The boom years were between 1870 and 1883, after this period agriculture again went into recession. Government money had been made available for drainage and other improvements which mainly benefitted the larger landowners. Farm tenants would now occupy enclosed and drained farms in single tenancy from the principal landowner on longer leases (the tenants in Quandal had been tenants-at-will subject to annual renewal). This would encourage the building and improving of dwellings and other farm buildings. The conditions of such leases could prohibit the cutting of turf for building and might sometimes prohibit the use of thatch for covering roofs. The repeal of the Window Tax about 1851 must be a factor in the appearance of windows in the walls of dwellings built or altered in the second half of the nineteenth century.

There are few old farm buildings surviving in Orkney which do not have one or two windows in the dwelling. This suggests that a very large proportion of the dwellings in farm buildings were reconstructed or substantially altered during the second half of the nineteenth century. At this time the dwellings incorporate sliding sash casements in the windows and the internal space in the dwelling becomes subdivided with box beds and wooden partitions. Outshot bedneuks disappear.

In this article we have considered the ruined buildings of Quandal as examples of the traditional rural buildings of Orkney. The full story of the Quandal community drawing on the historical and archaeological record has yet to be written.

Acknowledgements

We would like to acknowledge the help given to us by the following people:

William PL Thomson, author of *The Little General and the Rousay Crofters* and *History of Orkney*, for the historical background to Quandal and the clearance,

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SALMON LODGES ON THE TAY AND EARN

Roger Leitch

Historical Background

The River Tay has a stronger flow than the Thames and Severn put together and has always been a more important river for salmon than the Earn, which is a muddier, siltier river since it largely comes off agricultural land. Salmon fishing rights on the Tay have existed for centuries and provided an important source of income for the medieval religious houses. The monks of Lindores Abbey were conveyed the island of 'Redinche' (now Mugdrum Island), opposite Newburgh, with the whole of the fishing rights around it. The charter which conveyed this grant was confirmed by the Pope in 1198, and it contains one of the earliest references to fishing by yairs in Scotland[1].

Yairs are thought to have been introduced by the monks of Tongland Abbey. These early fish-traps took the form of an enclosure, formerly of close wicker-work and often also with a net[2]. The modern stake nets in the sea are somewhat similar in construction, though by no means identical.

It was not simply the ecclesiastical houses bordering the River Tay which had fishing rights on that river. The monks of Arbroath Abbey and the Priory of the Isle of May also derived revenue from fishing rights on the Tay[3].

As early as the fourteenth century the Scottish Parliament passed an act regulating the size of nets and the imposition of a close season for salmon[4]. Towards the later part of the sixteenth century came an act which demanded the removal of 'cruives and yairs'[5]. But Sibbald, writing as late as 1803 about the parish of Balmerino in Fife, states that there were eight salmon-fishings in that parish and these included 'yairs or scaffolds with poke-nets, and in summer ...sweep and toot nets'[6].

By the end of the seventeenth century there was increased competition between the upper and lower proprietors of the Tay, although the fishing essentially remained for home consumption. On the good authority of the *Old Statistical Account* (OSA) we learn that the fishings were let, along with the contiguous farms, and up until the middle

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[1] Alexander Laing, *Lindores Abbey and its Burgh of Newburgh* (Edinburgh, 1876), 70

[2] *The Concise Scots Dictionary*

[3] Laing, *Lindores Abbey*, 71

[4] Robert I 1318 c.11 [*Acts of the Parliament of Scotland*]

[5] James VI 1581 c.15 [*APS*]. For a description of cruives on the River Forth, see *OSA* Culross (1793-6), 109-10

[6] Sir Robert Sibbald, *The History ... of Fife and Kinross* (Cupar, 1803), 413

of the eighteenth century, were of very little value either to the proprietors or tacksmen[7]: 'They did not begin to fish till the seed-time was finished; and, by consequence, the most valuable part of the season was entirely lost'[8].

Various factors in the later part of the eighteenth century led to the salmon-fishings assuming a much greater importance. The market for fresh early season salmon in London had previously meant that the fish had to be shipped raw during cold weather, but at the suggestion of George Dempster of Dunnichen, ice was introduced as a method of keeping these early fish fresh, Moreover, there was now a demand from the Catholic states on the continent for salmon pickled in salt and vinegar during the summer season, and this greatly boosted trade, with the City of Perth assuming an important role[9]. According to the OSA, the rental of the Tay fishings had leapt to 'not below £7000 Sterling. This is a great sum, when it is considered how rapidly it has arisen almost from nothing'[10].

The most valuable part of the river was from its confluence with the Isla down to Newburgh on the south bank and Errol on the north. The lease for the fishings on Kinfauns estate alone, was valued at over £2500 in November 1793, employing between 70 to 80 men[11]. The method of fishing was by net and coble[12]. That said, different methods co-existed at different times.

Once more on the authority of the *New Statistical Account*, (NSA), we learn that stake nets were introduced into the Firth of Tay during the year 1797[13]. Unlike the Solway

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[7] *OSA* XIV Kinfauns (1793), 266-7

[8] Ibid

[9] Ibid. A R B Haldane, *The Great Fishmonger of the Tay: John Richardson of Perth & Pitfour (1760-1821)*. Abertay Historical Society Publications No. 21 (1981), 22.

[10] *OSA* XIV Kinfauns (1793). 266

[11] Ibid, 267

[12] Haldane, *The Great Fishmonger*, 10

[13] *NSA* IV Balmerino (1838), 591. In the Solway, a kind of net was formerly used, called raise-nets, which worked with the tide, and which was constructed so as to capture salmon when coming down the firth with the ebb of the tide. The Quaker Geddes, in Sir Walter Scott's novel *Redgauntlet* (1824), was the proprietor of such nets, and the working of them is there described. The novel is set in the summer of 1765. As legal evidence of the existence of these nets at the time when the events of *Redgauntlet* are supposed to have taken place, Scott's novel is probably insufficient. That they were known at the time the novel was written is certain, and from the author's well known historical accuracy, it seems highly likely that they were in existence at the date to which his story referred. Stake nets are still legal in the Solway and it is thought that they were introduced from there to the Tay.

Firth, stake netting in the Tay estuary had a relatively short existence, and is thought to have been banned around the 1830s after a flurry of activity in the law courts. Legal disputes continued all through the nineteenth century as proprietors sought to exploit loopholes in the law relating to the type of nets which could not be defined as 'fixed engines'. Ordinary net and coble fishing involved the net being taken out into the river by rowing cobles, and then once the shot was made, drawn in to the bank; hang nets were partly fixed to the shore, and a popular method on the Tay known as toot-and-haul nets, involved keeping the boat out in the river, with the net held in place, until fish were seen entering it. A fisherman in the boat would then signal to those on shore - sometimes by 'tooting' on a bugle - that they should haul int the net. As late as 1898, the toot-and-haul method was still being disputed in the courts[14].

When 56-year-old salmon-fisher George Melville was cross-examined in March 1898 during a case brought by the Duke of Atholl, he had this to say: 'There have been toot-and-haul nets on the Tay during all my time, and long before it. I have known a great many old fishermen, and they have always told me about toot-and-haul nets being on the river in their time'[15].

There used to be over 200 fishing stations on the Tay and Earn. A fishing station is the part of the river swept by the net and it often includes a hailing, or gravel beach, which is used for bringing in the net. There might be a bothy or lodge beside the station where the men could sleep and prepare their food in between shifts governed by the tide. Each year the stations used to be sold by public roup to the highest bidder, and some fetched hundreds of pounds in rental, depending on the previous year's catch. For instance, in October 1860, the stations belonging to the Earl of Wemyss were rouped, and ranged in price from £35 to £484[16].

My oldest informant, Tom Logie, born in 1904, was able to reel off the names of certain stations on the Tay down from Perth: 'For the summer fishing there was the Cock, the Girnal, Abernethy, Kerwhaup [Kerwhip], Carpow, the Reekit Lady, the Haggis, the Doocot, Back Beach, Deil, the Scamp, Dominie Den, Taes, Flisk Point, Corbie Den and Birkhill'[17].

The fishing stations in the Tay estuary shifted with the shifting of the sands, and their names changed accordingly, unlike those further up river which in instances such as the 'Stock', down from Perth, have been fished continuously for over 800 years[18]. Down river, most of the fishing stations on the Tay were on the south side, because the salmon

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[14]Duke of Atholl v Wedderburn IF 651

[15]Ibid. Proof, 5

[16]*Perthshire Courier* 25 October 1860, 3

[17]RWL/121 [Personal Tape Ref]

[18]Laing, *Lindores Abbey*, 71. In AD 1178-80, William the Lion bestowed on Arbroath Abbey: 'one net upon his water of Pert [Perth] called the Stoc' [Stock]. *Arbroath Chartly*, 11

took the deep water channel close to the Fife shore. Some of these stations were on sandbanks, as Angus Morrison recalled:

> I was down on Newburgh based at a bothy there, and we worked the sandbanks. The sandbanks could only be worked at a certain state of the tide, and we had to row from Newburgh out onto the sandbanks once they became exposed. We worked the sandbank until the tide came in and covered it again, and of course, it was a bit dicey. It was never a good posting. People who went down to Newburgh knew that they were not going to the best part of the River Tay for fishing. But against that, you also had the knowledge that they considered you good enough to send you down to work the sandbanks because there was a lot of rowing involved and, as far as the gaffer was concerned, there was also a lot of sound judgement needed. If he left it too late you were up to your knees in water before you drew in your last net, so he had to judge it very fine indeed [19].

The Bothies during Last Century

Little, if anything, has been published about the condition of the salmon bothies in the nineteenth century. Writing in 1939, local historian Lawrence Melville states: 'A gentleman in Newburgh, closely connected with fishing about 50 years ago informed us that the bothies in those days, bad as they were, were nothing compared with the dens of former years, when the huts were not erections but excavations by the side of the river'[20]. Independent corroboration of this point was provided by my best informant, Tom Jarvis of Ferryfield House, Carpow, by Abernethy. I asked Tom if he had ever found out what the fishers did before there were proper bothies:

> Well, Ah've heard them saying that - like ma father; he used to tell me that the old boys used to tell him that they just burrowed into the bank and roofed it over at a station where there wasn't a bothy at that time. They just burrowed into the bank and roofed it over with any timber they could find, and then reeds on the top o' it, and that kept them dry at least. That was what happened before there was bothies, because they were sometimes up to ten miles from home, maybe further, and they were only off four hours, so they had to get some place under cover. An a lot o' them as the years went by they were enlarged and enlarged. [21]

According to Tom Jarvis, proper structures evolved from these excavated dens. The early bothies were mostly built with stones from the fields and originally had thatched roofs, then red pantiles and finally slates. There used to be a tile and red brickworks down at Ferryfield, still marked on older maps, and to this day, certain of the older bothies such as Balmerino have pantile roofs, although the vast majority are slated. Tom believes most of the pantiles came from Fife, or in the vicinity of Port Allen on the Perthshire side of the Tay.

The insanitary condition of the bothies on the Tay and Earn was raised in the House of Commons after being revealed by the reports of medical officers for several parishes

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[19]RWL/100

[20]Lawrence Melville, *The Fair Land of Gowrie* (Coupar Angus, 1939), 42

[21]SA 1987/122/B (Sound Archive of the School of Scottish Studies)

bordering the rivers. The Board of Supervision then instructed a certain Alexander Carmichael of Lochgilphead to visit the area and report in detail on the condition of the bothies. Carmichael visited about 50 bothies in three days during April 1889 and his report condemned them on six counts: insufficient air space, inadequate ventilation, earth flooring, lack of privies, inadequate storage space, and the dumping of rubbish in their vicinity[22].

The lodges Campbell inspected were in the parishes of Rhynd, St Madoes, Kinfauns, Kinnoull, Abernethy, Dunbarney, Errol and Perth. His six-page report and accompanying notes makes very interesting reading as a piece of social history. 'The life is a hard one. They [the salmon-fishers] are said to be very rough in their habits but as a rule there is nothing in the lodges to civilize them. The want of space is such that, as one of the fishermen remarked to me: 'they lie like herrings in a plate'.'[23]

The average air space in the bothies was found to be about 250 cubic feet per man, some of the lodges affording more and some a good deal less. Some of the smaller bothies on the Earn contained only four or five men, but those on the Tay averaged seven: four boatmen, two towmen and a foreman. Carmichael recommended that the minimum air space should not be less than 300 cubic feet per man, and held the view that many of the lodges were of such a character that they should be pulled down and remodelled entirely. He was scathing about windows being fixed and offering no means of ventilation, as well as the condition of the flooring - 'a matter of importance as where partly earth it is riddled by rats'[24]. The best protection against rats was concrete flooring, and the report mentions that some of the lodges belonging to the City of Perth had lately had this installed.

The Perth lodges also had beds of a better description - composed of rough boarding raised above the floor - than those bothies in the landward areas. Little or no shelving was provided, there were no pegs for hanging wet clothes, and no forms for seating. Carmichael had been told that 'the men were so rough in their habits ...everything of wood would be burned'[25].

Carmichael's notes for each of the lodges he inspected are grouped according to their parish and provide information about dimensions, cubic air apace, number of men in each lodge, ventilation, flooring, storage facilities (if any), and a brief comment about their general condition. For instance, Draiglie, the most profitable station on the Earn, was 20ft by 14ft by 7ft in size, with an estimated 1960 cubic feet as air space for its six-man crew. The floor was partly earth, there was no storage, and the general condition was described as 'ruinous'[26].

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[22]SRO (West Register House,), AF56/1422. Report by Alexander Carmichael, 'Fishing Lodgings on the Tay and Earn', dated 11 May 1889

[23]Ibid

[24]Ibid

[25]Ibid

[26]Ibid, Notes for 'Parish of Abernethy'

The bothies in Kinfauns parish extending down to Cairnie Pier, and even beyond, were built on the river side of the Perth to Dundee railway line within the high water mark. Most of them were either on pillars or piers, and the water flowed in and out[27].

It is difficult to assess the results of the Carmichael report. A certain amount of upgrading was carried out, but it varied according to individual proprietors on different parts of the river. In Kinnoul, the only remaining portions of the old lodges were the outer walls. The floors were all lifted and a good bottom of stones put down preparatory to their being laid with concrete. The old timber ceilings were replaced with lath and plaster, raised to increase the air space with the addition of a skylight. In certain cases, separate storage areas were constructed from wood with slated roofs, in order to house nets, boots, straw etc[28].

Bothy Life as viewed through Oral History and Tradition

Social history aspires to treat the history of society as a whole, not just the rich and articulate. Oral history - the first-hand recollections of informants - tries to give social history a human face and allows the voice of ordinary people to be heard alongside the careful marshalling of social facts in the written record. It should be distinguished from oral tradition - where narratives and descriptions of people and events in the past have been orally transmitted through the generations. Oral sources can provide a vivid insight into working conditions and the domestic routine, but they are not infallible. Nor for that matter are written sources. The mirror of memory can confuse, distort, or even suppress. That said, the immediacy and colour of the spoken word can provide an additional tool towards understanding the past and serve as a corrective to the bias and dryness of official written sources. As we shall see, it can often complement the written source, although the passage of time can play tricks with accurate chronology. Furthermore, the more colourful events tend to be recalled better than the more humdrum events of everyday life.

Cecil Powrie (b. 1913):

> About 1880, maybe 1890, the Tay Salmon Syndicate was formed of people who were just salmon fishers, and they started outbidding the rest of the people for the best stations. There are good stations and not so good stations... more to the movements of the fish. Actually, the Salmon Syndicate, round about the 1920s, started buying the stations from the landlords and they own most of the stations now.[29]

There used to be about 25 fishing stations on the Earn from its confluence with the Tay, right up to Forgandenny. Tay Salmon Fisheries Company, established in 1898, bought over most of the Earn stations and fished them on a part-time basis until World War II. Since then they have not been fished very much; the low returns from the Earn

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[27]*Dundee Advertiser* 8 August 1889, 7

[28]SRO, AF56/1422. 'Fishing Lodges on the Tay and Earn: Kinnoul'

[29]RWL/119

stations not justifying the amount needed for wages, and with neglect the Earn bothies gradually fell into decline.

Stewart Powrie (b.1918):

> When I was about seventeen or eighteen, I went in cahoots with an old man from Perth called MacDonald. He had the fishing at Carey Hole on the Earn. It belonged to the farmer, Gray of Carey. A dirty, clarty, muddy hole it was. However, Macdonald and I fished that, and the bothy we slept in was just an old thatched hovel with an earth floor. It was built with caussie blocks and rubble, and you had to bend as you went in the door.[30]

I asked Tom Jarvis (b. 1936) if he could recall what the bothies were like in his father's day:

> Initially, they were just four walls and a door; a fire on either end for cooking on; pretty small, considering there was seven or eight men in each of them. There was just room for bunk beds for them all, and earth floors ... And they were usually infested wae rats, being on the river bank. There wasn't much control over rats in those days, and once they got in, you'd never get them out.
>
> I've heard ma wife's father talkin about the Abernethy fishing station in the twenties. Their bothy was on Mugdrum Island and there was no way they could get rid o' the rats because Mugdrum Island was infested wae rats at that time. He's wakened up in the morning and counted over forty running about the floor in the bothy. It was riddled wae holes. You see, it was just the earth floor into the bank o' the river. They blocked up one hole and ten minutes later there was another one burrowed through. All their foodstuff had to be kept in glass jars, and even when they were sitting eating at the table, there was often a rat would jump up on the table to get to the food.[31]

John Barrie (b. 1912):

> There was seven in a crew at that time - four boatmen, two towmen, the foreman and the ropey. And especially in the lower reaches [of the Tay], there were old-fashioned double wooden beds and they slept in twos. The ropey, he slept along wae the foreman.[32]

Tom Logie:

> There was no table or nothin. You brocht a fish box in and there was a big kettle sat at the fireside steady; one of these gun-metal lads, an the water was always burning. And maybe an hour or so gaun on shift time again, ye got up and it was always ham and eggs, ham and egg, or sausage and egg or somethin like that. But there was no tinned meat in those days. Ye got nothin like that, nor soups or anything.[33]

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[30]RWL/122

[31]SA 1987/122/B

[32]RWL/102

[33]Ibid

John Barrie:

> Some o the fishin stations had no piped water. You went out an got the water from springs. If you wanted a toilet you had to go round the back o' the bothy intae the wood. But we'd lots o' good fun at that time. You made yer ain fun. It wasnae an unusual thing for some o' your opposite crews gaun climbin up on the bloody roof an puttin a wet bag over the bloody chimney: that was good fun. One thing we were never short o' was coal. By God, they kept you wae a plentiful supply o' coal. That was aa taken down tae the bothies. They'd load up a coble wae maybe a ton and a half, an took it down tae yer bothy.[34]

John Scobie (b. 1920):

> You washed in the burn at the side o' the bothy ...Oh it was very basic when you look at the bothies nowadays wae electric light, cookers an everything in them ...Thir wisnae any motor transport or motor cobles then. It was the push-bike or walk. Ye cycled down five miles maybe, down through the fields an that's how ye got down to the waterside. The ropey - that was me - always usetae get away early to have the kettle boiled before the other ones finished, or maybe the fryin pan heated.[35]

Jim Davidson (b. 1934) can't recall as far back as the previous informants but gives a useful description of the bothies in his younger days on the lower reaches of the Tay.

> Well, the bothies weren't that big for the amount of men that were staying in them. I would say an average bothy was roughly thirty feet by fifteen feet, and that had to hold anything up to eight men. There was only one door and that normally faced the water, with a window at each side of the door. Once you were in through the door, the dividing wall ran from the door to the back wall, with a big coal fire on each side of the dividing wall. That was basically the lay-out. Then there was the wooden bunks round the inside wall, a stone floor and a couple of wooden tables for to eat off, and benches - form seats actually. And each man had his own locker for all his food, and round about the fire there were pins or nails knocked into the wall for drying off the wet clothes. All the cooking utensils you had was one great big black kettle, and maybe a pan or two which you used for your own cooking. Things were pretty basic.[36]

Local seasonal labour at the salmon fishing was supplemented by the engaging of Hebrideans who knew how to handle boats and traditionally left the likes of Harris, Scalpay and Lewis if they could not find work on the islands. These men might spend the entire summer season at the Tay fishing.

Angus Morrison (b. 1925):

> When we arrived in Perth about 1942, the Tay Salmon Fisheries' lorry met us at the railway station and I was taken along with the rest of the people from Scalpay down to the Pyerod. Now, this station was at the water's edge and

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[34]Ibid

[35]Ibid

[36]SA 1987/122/A

there's a railway line between it and the main road. I remember that the lorry set us down at the side of the road and we had to hump our gear. A point here is that we had to take everything with us from home. We had to take our bedding, crockery and cutlery, cooking utensils - in fact, the only thing that was supplied in the bothy was a big cast-iron kettle, and that kettle was never off the boil.

I was put into one end of the bothy with three others. There were four beds in pairs - bunk beds, one on top of the other. The mattress was a straw mattress - that was supplied, and this big black kettle. That I think was all that was waiting for us in the bothy. There was in front of the bed a bench, and below the bench some lockers. But I can't remember there being any furniture in the bothy at all ...We not only slept there, we lived there as well: there was no other place to go. I would say it was adequate. We had another set of Scalpay lads next door, and one of the lads next door had a button-key accordion ... so from time to time we had our moments there too.[37]

Jim Davidson:

The special clothes were rubber waders in my time. I do mind o' clearin oot a bothy and there was quite a lot o' leather waders wae the tackety soles. I would think they would have to be soaked in water before they were watertight. And something else - even in my time you wore what they cried buit-cloots and that was only bits o' hessian. You'd a pair o' thin socks that you wore to go to the fishing, and on top of these you wrapped long lengths o' canvas round about your feet, an then you put your feet in the waders.[38]

Angus Morrison:

But it was dreich coming in off a shift, when more often or not, you were soaked through, not only with rain but with hauling in the net. You had oilskins supplied but they were totally inadequate because you were soaked through once you'd hauled in the net two or three times.[39]

The Tay and Earn fishing season originally was from 5 February to 20 August. Sometimes at the start of a season there would be ice formed across the width of the river and the men couldn't sweep net until there was movement with the ice. Men such as Tom Jarvis' late father were out netting in the winter, for lengthy shifts, with little in the way of protective clothing. These men were truly a breed apart, working with heavier nets and other gear, for very little money.

Tom Jarvis:

It was a hard, hard life they had in those days. And especially in the spring o' the year, in February and March, when it was hard frost an blowin a blizzard. Ah've heard ma father sayin he'd come in after a shift, an your jacket would be frozen solid. If you tried to take the buttons out it just broke. And the next

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[37]RWL/101

[38]SA 1987/122/A

[39]RWL/101

morning when it thawed out, there was just a big tear across where it broke ... And in the bothies, even although they had a fire on either end, if they went to sleep during the night an somebody didn't stoke up the fire, the kettle sittin beside the fire would be frozen solid in the morning. A different world.[40]

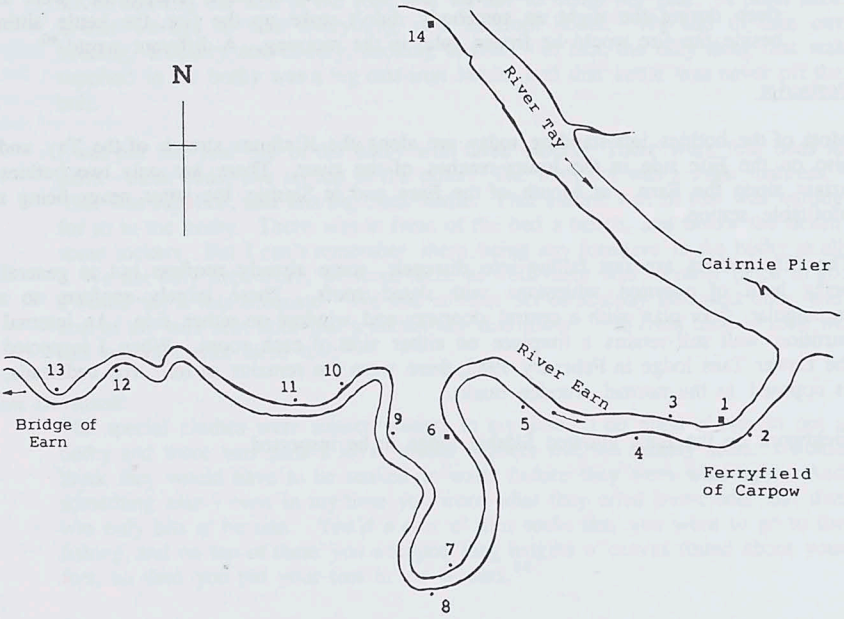
Postscript

Most of the bothies left standing today are along the Kinfauns stretch of the Tay, and also on the Fife side in the lower reaches of the river. There are only two bothies extant along the Earn - at Mouth of the Earn and at Slashie, the latter never being a profitable station.

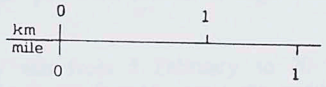
The Fife bothies are fast falling into disrepair, some already roofless but in general being built of quarried whinstone with slated roofs. These largely conform to a rectangular floor-plan with a central doorway and window on either side. An internal partition wall still retains a fireplace on either side of each room. When I inspected the Lower Taes lodge in February 1988, there were the remains of four iron bedsteads, as opposed to the normal wooden bunks.

Fieldwork on the Earn allowed Slashie lodge to be inspected.

[40]Transcript 23/11/87



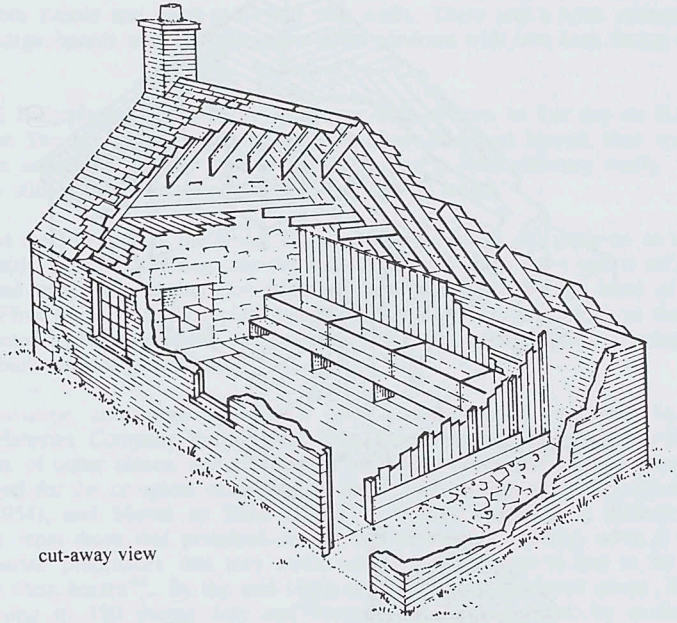
1 Mouth of the Earn
2 Draiglie
3 Steinshaugh
4 Innernethy
5 Cordon
6 Slashy
7 Fittiehaugh
8 Carey Hole
9 Wester Rhynd
10 Kinmonthford
11 Wardgreen
12 Wallacetown
13 Daffick
14 Balhepburn Island



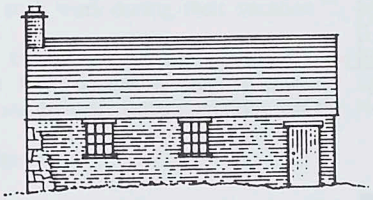
No. 1,6 & 14 still standing.

GJD '93.

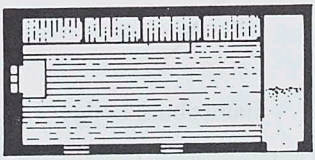
figure 1: Location map for salmon lodges on part of the rivers Tay and Earn.



cut-away view



elevation



plan

Slashie Lodge

figure 2

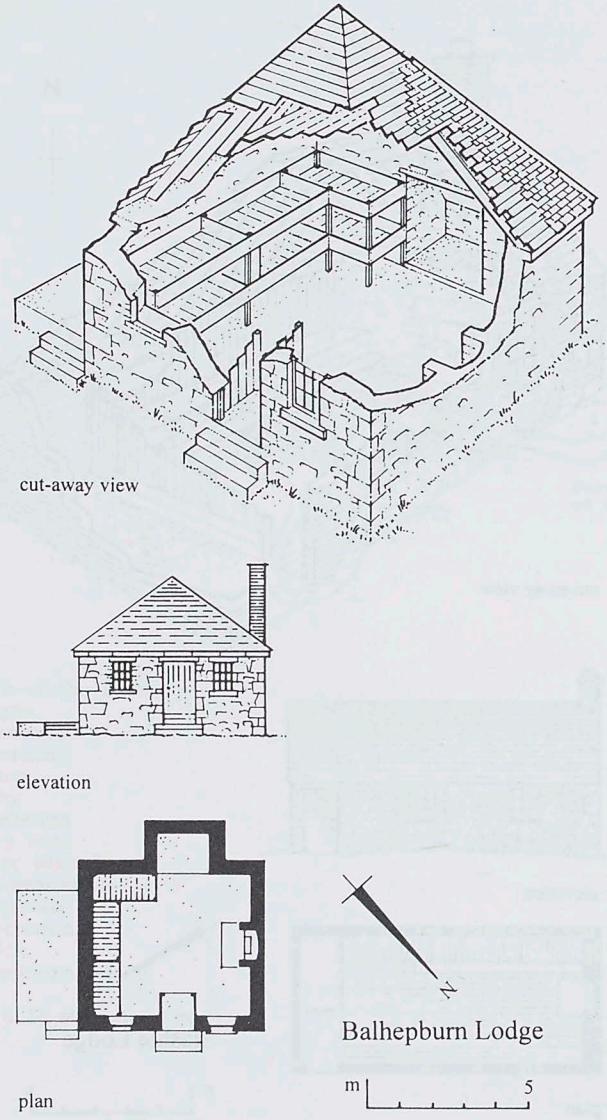


figure 3

This was rebuilt in the 1920s with a narrow storage area off one gable. The interior living area had a sagging timber floor and redwood panelling round the walls, four wooden box-beds down one side and attic space for nets above. The walls were built with random rubble and brick-and-a-half side walls. There was a brick chimney stack, wooden barge boards and two nine-pane glass windows with iron bars facing onto the river.

The small Balhepburn Island bothy which can still be seen to this day on the Rhynd side of the Tay is unusual in having a square floor-plan and hipped slate roof. The walls were uncoursed random rubble with lime, and a brick chimney stack. Wooden bunks are still *in situ*, one being just over five feet in length.

Birkhill on the Fife side of the lower Tay is unusual in that it sits gable-on to the river. It is a double storey bothy dug into the hillside to avoid high tides and is still used as a store and temporary shelter for salmon-fishers who work for the laird of Birkhill House. Flisk Point is fairly typical but its former function is unusual in that it was formerly used by river watchers. Deil-ma-care and Doocot lodges are interesting in that they are built on stone platforms.

A re-organisation and upgrading of their bothy accommodation was made by the Tay Salmon Fisheries Company during the 1950s. Improvements largely consisted of the installation of water closets and erection of net-drying sheds and storage areas. Plans were lodged for the complete rebuilding of some, such as Pyreod (1952), Stock (1952), Lymie (1954), and Mouth of Earn (1955)[41]. It was altogether a different set of conditions from those that pertained in the late nineteenth century, when it was said of the riparian proprietors that they would not allow their dogs to stay in the bothies, much less their horses[42]. By the mid-1960s the net fishing employed about 70 men in spring, rising to 180 during July and August, the total boosted by students who undertook such work during their vacation[43].

Since then the salmon netting industry has withered to a point of near extinction due to pressure from competing angling interests up river, pollution, and interception of salmon at sea by drift netters working off the Northumbrian coast.

Acknowledgement

With thanks to the following for the illustrations: Keith Logan, Ian Parker and Graham Douglas

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[41]'Town and Country Planning Plans: Perth and Kinross County'. Sandeman Library Archives, Perth. Refs 52/329; 52/389; 54/450 and 55/472

[42]D B Taylor, ed, *The Third Statistical Account of Scotland* XXVII (Coupar Angus, 1979), 54

[43]Ibid

A NOTE ON STONE SHIELING HUTS

Roger Leitch

Shieling huts connected with former livestock activities in the Highlands and Islands have received a good deal of attention since Captain Thomas' pioneering paper on those of the beehive type in the Long Island during the mid nineteenth century.[1]

The oldest type of shieling hut was known as the 'both' in Gaelic, a drystone corbelled structure resembling the shape of a bell and packed with a thick covering of turf to keep it wind and weatherproof. The floor plan was usually circular or oval and examples of this type of stone structure have been found in Canna, Harris, Lewis, North Perthshire, Sutherland and Wester Ross. According to the Swedish ethnologist Ake Campbell, shieling huts of the 'bothan' type had completely disappeared from use by 1939, although shieling huts with wooden construction in the roof, 'àiridhean', could still be studied at that time as living buildings.[2] It would be interesting to know exactly when the 'bothan' type structures fell into disuse.

Captain Thomas visited over 40 'bothan', mainly in the Lewis parish of Uig on the western seaboard. About half of these corbelled huts were still inhabited during the period of his fieldwork - 1857-66. Thomas says that they were valued by their occupants more than the timber-roofed shieling huts, partly because timber was scarce and had a tendency to be dislodged during gales. In most cases the origins of the 'bothan' went back beyond living memory, although one example was said to have been built about 1776.[3]

In buildings of the 'bothan' type the walls are not vertical but inclined from the ground up to form a vault, in that every stone is laid somewhat overshot in relation to the stone beneath. The walls comprise comparatively large stones and they converge quite significantly although they do not form a closed vault. A smoke hole ('farlas') is left at the apex, about a foot in diameter, and could be closed in inclement weather by covering it with a flat stone or piece of turf. The smoke hole, along with the doors, also admitted light into the 'both' as well as allowing smoke from an open fire to escape.

The general dimensions of a 'both' were roughly as follows: external diameter, 12-18ft, internal 6-8ft, external height, 9ft, internal height 6ft. The doors were only about 2ft 6ins high and involved kneeling to gain entry. The practice of 'bothan' having two doors seemed to Thomas to be a more recent device by which one or other of the doorways could be blocked with turves, according to the wind direction; this helped control the elimination of smoke from the chamber. The fireplace could be mid-floor,

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[1] F. W. L. Thomas, 'Notice of Beehive Houses in Harris and Lewis', ***Proc Soc of Antiqs of Scot*** III (1857-60), 127-144

[2] Ake Campbell, 'Keltisk och Nordisk Kultur I Mote Pa Hebriderna', ***Folk-Liv*** 7-8 (1943-4), 246

[3] Thomas, 'Beehive Houses', 127-144

but it was usually placed between the two doors in a shallow wall recess.[4] Peat, unlike coal, does not require an air-space to provide an under-draught.

Similar to the blackhouses, some 'bothan' had wall-beds known in Gaelic as 'crub'. Those huts which possessed these and only one door as opposed to two, were thought to be the oldest examples. Many stone shieling huts had small recesses in the walls for storing such items as milk vessels. These recesses were simply formed by leaving out a number of stones and were capped with a small lintel. The presence of ground level recesses for beds and the high standard of vernacular construction proves that the 'bothan' were intended for residence rather than occasional day-time shelter. It was usually two young girls who were sent to look after the cattle at the summer shielings and they would also milk, churn butter and make cheese.

The Gaelic folklorist, Alexander Carmichael, has written that the apex of the dome of the 'both' was capped with a circular flagstone, holed like a mill-stone to allow the smoke to escape through the roof of the 'both'. This may have been too elaborate a feature to have prevailed generally.

Drawing upon local oral tradition, a newspaper article for 1901 gives a clue as to how a 'both' was constructed:

> 'Three poles are tied together at one end and raised in the spot where the hut is to be erected. At the free end they are pulled out as far as practicable, and thereafter around these a wall of rough stones is built with a narrow doorway for the entrance. This is lined externally with turf and the top thatched with heather.'[5]

Formally, shielings were usually sited together in groups, although some single shielings were also found. Each village had its own shieling sites. Some were by lochs, some in glens and some on the sides of quite steep hills. It was necessary for there to be access to running water so as to keep dairy utensils clean.[6]

A marvellously intact example of a small 'both' still survives at Glen Meavaig in the hills of north-west Harris (NB 090075). A few miles from this spot, the place-name feature *'Lag an Tigh-chloiche'* (Hollow of the Stone House) is marked on maps. The Glen Meavaig 'both' is deeper into the hills than might be expected, lying on top of a ridge below crags which rise steeply above it, making it rather difficult to pinpoint since the stonework merges in perfectly with the surrounding landscape. Standing on high ground to the west, I first caught sight of its distinctive bell shape by using binoculars. Upon reaching the structure I felt as though here was something very old, a structure far removed from the present day.

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[4] Alexander Fenton, ***Country Life in Scotland : Our Rural Past*** (Edinburgh, 1987), 64. D. MacDonald, 'Lewis Shielings', ***Review of Scottish Culture*** 1 (1984), 29

[5] D. W. W., 'The Shielings of Auchengaich', ***The Scotsman*** 12 November 1901, 8

[6] MacDonald, 'Lewis Shielings', 29

Externally, the turf covering had gone, leaving only the bare stones. The dome of the 'both' was partially capped at its apex by a long narrow stone over 4ft in length. This supported several side-stones which together formed the cap. The doorway was only 2ft wide by 2ft 4ins high and could be completely sealed by a medium-sized rucksack. After crawling inside it was a revelation to be able to stand up without the need for stooping. Four wall recesses were visible, the two at ground level probably being for wall-beds.

The ingenuity of the vault-like method of construction could plainly be seen. On either side of the 'both' were two smaller corbelled structures that probably served as stores for milking equipment and dairy produce. About half a mile to the west, on lower ground beside the *Allt a Mula* (NB 078069) stood another 'both' site but unfortunately this had been reduced to a rickle of stones. Ake Campbell stated that from some points of view the 'both' was the most interesting building in modern Europe.[7] He made a plea that buildings of this type should be preserved, and it seems appropriate to the writer that action be taken to list the Glen Meavaig structure as an ancient monument, before it too is lost to the nation.

A similar structure to the 'both' is found in Ireland where it is called *'clochàn'*. The precise date of origin of these circular drystone huts is unknown but they were widely used as habitations by the early Christian period.[8] A great many *'clochàns'* exist in the hill areas of the Dingle Peninsula where they served as booley huts.[9] On Achill Island and the Blaskets, similar structures were inhabited into last century.

Drystone corbelled huts of the type we have been discussing are numerous in France, Spain and Portugal, in some parts of Southern Italy, as well as the Balkan countries. The roofs are constructed with very large slabs which enable a large surface to be covered with a single stone. This is reminiscent of the construction technique of cist-graves.

In conclusion, the Hebridean 'both' and Irish *'clochàn'* are pre-Celtic building types, representing an extremely ancient culture of building which is totally uninfluenced by timber construction. Far from being part of a primitive backwater, these structures represent the time-honoured tradition of communal ingenuity responding to life in a harsh and unrelenting environment, making the fullest possible use of available building materials which nature provided. All too few of these structures have survived intact; making those that have, a precious example of building design from the remote past which must be preserved at all cost.

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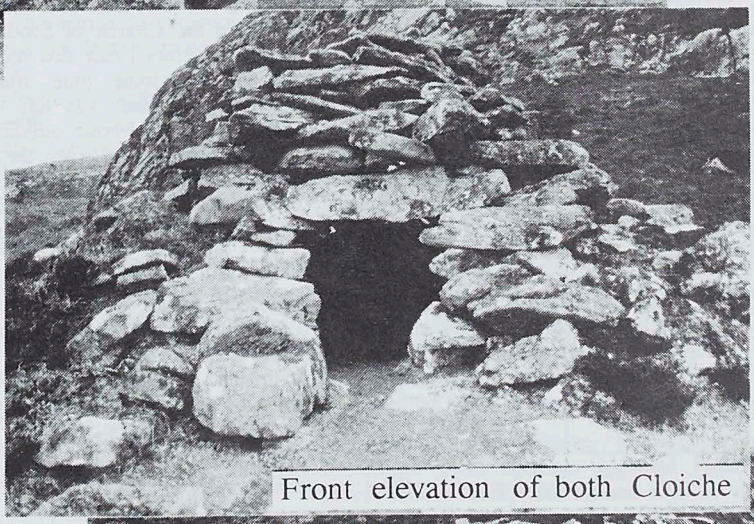
[7] Ake Campbell, 'The Lewis Shieling' (unpub. typescript)

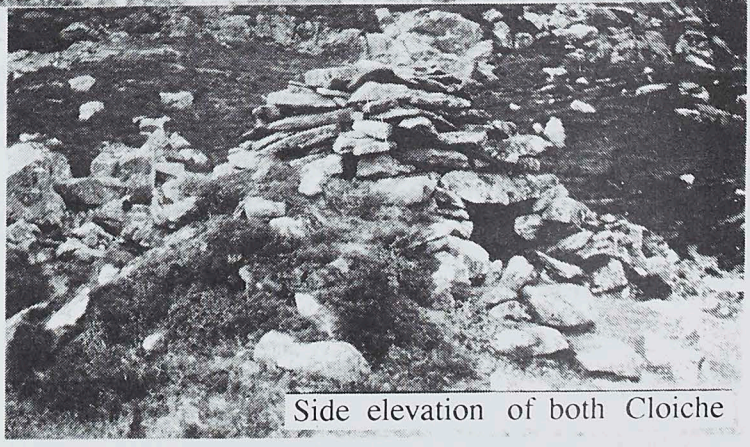
[8] Françoise Henry, 'Early Irish Monasteries, Boat-shaped Oratories and Beehive Huts' ***Co. Louth Archaeological Journal*** XI (1945-8), 294-304

[9] F. H. A. Aalen, 'Clochans as Transhumance Dwellings in the Dingle Peninsula, Co. Kerry', ***Journal of the Royal Soc of Antiquarians of Ireland*** 94 (1964), 39-45

Both Cloiche at Glen Meavaig, Isle of Harris.
The entrance is 2'5" high



Front elevation of both Cloiche



Side elevation of both Cloiche

THE EIGHTEENTH CENTURY MANSE OF URRAY, ROSS AND CROMARTY

Malcolm Bangor-Jones

It is apparent that during the eighteenth century many of the minor lairds and larger farmers or tacksmen in the Highlands were beginning to share in the general improvement in housing usually associated with the larger landowners. Gifford has gathered evidence suggesting that the manses of ministers in the Highlands were also improved during this period, becoming better constructed and more extensive [1]. The purpose of this paper is to examine the documentary record relating to the eighteenth century manse of Urray in Easter Ross (NH 507529). Two building phases are recorded: a major repair in 1717 and a complete rebuilding in the early 1750s. The manse of the 1750s has been identified with the crow-stepped barn to the north of Old Urray Manse [2]. The building was surveyed by the Royal Commission in 1989 and a plan has been published but as yet no written report is available [3].

The legal background

It is necessary to begin by examining the law relating to the provision of a manse in a parish such as Urray. The entitlement of a minister of the Church of Scotland to a manse, effectively secured by Act of Parliament in 1563, did not mean that ministers were provided with manses. Indeed it appears that for some time after the Reformation the responsibility of repairing and building manses was left to the ministers who were, in a sense, treated like ordinary tenants whose buildings or 'biggings' were valued or 'comprised' when they entered a holding and when they gave it up. The purpose of the Act of 1612 which allowed expenses of up to 500 merks (£27-15sh-7d.) which a minister had expended on his manse to be repaid by his successor, was to protect incoming ministers from having to pay for over-expensive manses [4].

Eventually, responsibility for building manses was settled by an Act of 1649 which gave heritors (landowners) the duty of building 'competent manses' [5]. This legislation was repealed after the Restoration but was largely reenacted in 1663. The 'Act anent Manses & Gleibs & poinding for Ministers stipends' of that year stipulated that 'whair competent manses are not already built, the heretors of the paroche at the sight of

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[1] Gifford, J, *The Buildings of Scotland: Highlands and Islands* (1992), 71-72.

[2] Beaton, E, *Ross & Cromarty: an illustrated architectural guide* (1992), 42-43.

[3] The building was visited by the Scottish Vernacular Buildings Working Group during the Easter Ross Conference in 1989 and the plan was published in the conference booklet.

[4] *APS* (Acts of the Parliaments of Scotland) IV, 472; Burns, T, *The Benefice Lectures* (1905), 79; Foster, W R, *The Church before the Covenants* (1975), 170-71; Kirk, J, *Patterns of Reform: Continuity and Change in the Reformation Kirk* (1989), 475-76.

[5] *APS* VI pt. II, 287-88.

the Bishop of the Diocess or such ministers as he shall appoint with two or three of the most knowing & discreit men of the paroch build competent manses to their Minister, the expences thairof exceiding one thousand punds and not being beneath fyve hundreth merks' - equivalent to a maximum of £83-6sh-8d and a minimum of £27-15sh-7d[6]. The obligation on heritors to build a manse was understood to extend to farm buildings including stables, barns and byres.

After the Revolution settlement of 1689 the administration of the Act became a matter for presbyteries rather than bishops. The normal procedure followed in the eighteenth century, if there was no manse or the manse required to be repaired, was for the minister to petition his presbytery requesting a visitation and a decree that a manse should be provided by the heritors, or the existing one repaired. The visitation by members of the presbytery would take place on an appointed day in the presence of the heritors, several 'discreit' men, and various tradesmen. The tradesmen were put under oath and required to report whether a new manse was necessary. In the event of a manse being found necessary, plans and/or specifications were drawn up and the tradesmen produced estimates. The Presbytery then appointed an 'undertaker' to contract with the tradesmen and supervise the work and collect the sums which were apportioned from each heritor according to the valued rent held by each in the parish (a valuation based on estate rentals existing in 1667 which served as a basis for levying various duties on land until the mid-nineteenth century)[7].

Although £1,000 Scots would probably have provided a well appointed manse in the seventeenth century, in time it was found to be insufficient. In part this was attributable to rising building costs. However, it is clear that the main reason was that ministers were keen to benefit from the improvement in the standard of housing which was evident by the mid-eighteenth century. In 1760 the Court of Session upheld the decision of a presbytery that the heritors must build a 'competent' manse with farm buildings irrespective of the cost. In time it became established that ministers were entitled to such a house as would be considered suitable for someone in the same social position. By the nineteenth century it was assumed that a manse should be equivalent to the dwelling house of a gentleman[8].

The parish of Urray

The former parish of Urray, strictly the united parishes of Urray and Kilchrist (Tarradale), lies largely in the more arable lowland part of Easter Ross (the stipend was mainly paid in barley), although it included some detached highland lands and almost 400 acres in Inverness-shire. The old kirk of Urray was located near to where the River Orrin joins the River Conon in what is now known as the Old Urray Burial

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[6] *APS* VII, 472-73. Instead of a manse, ministers might be provided with an allowance in lieu - often referred to as 'manse-maill' or 'manse-rent'.

[7] Connell, J, *A Treatise on the Law of Scotland, respecting the erection, union, and disjunction of parishes* (1818), 252-53; Presbytery records from Sutherland and Ross and Cromarty.

[8] Connell, J, (1818), 277-78; Burns, T, (1905), 81-83.

Ground (there was also a kirk at Kilchrist[9] where the minister preached every third Sunday). The manse and glebe were located near to the old kirk which was also not far from a ferry boat crossing over the 'impetuous river Conon' - there was a changehouse or inn at Ferrytoun of Brahan on the north bank of the river where a good deal of estate and official business was transacted [10]. The positions of both the old and present kirk of Urray (built 1775-1783)[11] within the parish reflect the distribution of population prior to the growth of the village of Muir of Ord.

The repair of 1717

The parish of Urray was vacant from 1705 until the Rev John Morrison was settled in January 1717. In April Morrison petitioned the presbytery of Dingwall for a visitation on the grounds that the manse was 'ruinous and not habitable unless it be repaired and also wanting the necessary office houses'. The heritors had withheld the vacant stipends and refused to pay for any repairs [12]. This was not surprising; many were short of cash and several were episcopalians who had been involved in the Jacobite Rebellion in 1715 - the estates had been forfeited immediately after the Rebellion but it was several years before the Government attempted to gain possession. The presbytery agreed to a visitation and ordered that their intentions be intimated to the heritors and that warrants be issued for citing tradesmen and three discreet men of the parish.

The visitation took place on 4 June 1717; those present included several ministers, but only two heritors, William Mackenzie of Davochcairn and Alexander Mackenzie younger of Ord, 'several honest men of the parish' and Thomas Ross, mason in Redcastle on the Black Isle, and James Fraser, a wright from Beauly. On being asked by the presbytery whether there was a sufficient manse, the two heritors answered that there 'was formerly a Manse but it turned ruinous dureing the Long vacancie'. After the ministers, tradesmen and 'honest men' had inspected the manse and the oaths of the tradesmen taken, it was declared that 'in order to repaire and make it a sufficient manse It will be necessar to raze it funditus except the South Geavell [gable]'.

The presbytery, with the heritors' consent, then drew up a specification; firstly that the:

> principall house when repaired Consist of fortie two foot longe between Gavells fyfeteen foot broad and fortein foot high in the side walls under Coupples with proportionable hewn windows Chimneyes heads Corner and pet stones with Lofting jesting partitions doors Roofe and other pertinents

and secondly

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[9] Beaton, E (1992), 40.

[10] *Macfarlane's Geographical Collections*, vol I, Scottish History Society, (1906), 209-211; Scottish Record Office (SRO) Dingwall Presbytery Records, CH2/92/4, 4.

[11] Gifford, (1992), 466.

[12] The account of the repair of 1717 is based on SRO CH2/92/4, 19-21.

that a new barn be built threttie two foot long fortein brod and six foot high in the side walls meason work with Couples railes Cabers and other pertinents proportionable and a Kitchin and Stable both together to consist of the same work and dimensions with the barne.

Further the 'whole measone work of the principall house and office houses to be harled with lime and all the materialls to be led to the place'.

The tradesmen and 'honest men', having been 'set apairt by themselves to advise together how much money would be requisite to repair' the manse, gave in a written report stating that it would cost £672 Scots to 'make up the mason and timber work of which they gave a particular accompt' (not copied into the presbytery records) and £300 Scots to lead the materials. These estimates and the specification suggest a substantial building with masonry walls and proper couples rather than 'Highland couples or crucks'[13] with a traditional outside kitchen and also demonstrate the high cost of transporting materials. The presbytery approved the estimate and ordered the heritors to meet at Urray on the 25 June to appoint a collector and arrange for the necessary sums to be paid out of the vacant stipends and failing that to stent themselves according to their valued rent.

On 16 July 1717 Morrison reported to the presbytery that the heritors had not appointed a collector for uplifting the vacant stipends. A senior minister wrote advising the heritors to collect the vacant stipends 'to prevent further trouble to themselves' but even this did not finish the business. In 1719 the manager of the financially troubled Seaforth estate, who had handed over that estate's share of the vacant stipends, refused to pay anything out of the rents until the other heritors had paid up their vacant stipends. The presbytery decided to take out a legal process against the possessor of part of Mackenzie of Applecross's estate. This appears to have had the desired effect; for in July 1720, Kenneth Mackenzie, a merchant in Inverness and a younger son of Applecross, who was acting as a subfactor on his father's forfeited lands in Easter Ross, paid Morrison £234-13sh-4d Scots as his 'full proportione of the Vacant Stipends' for the years 1715 and 1716 'for Building and repairing the Manse' and £73-0sh-4d Scots as his share of the £300 Scots 'allocat for Carrying Materialls for Building the sd Manse'[14].

The manse of 1750

Morrison died in July 1747 and was succeeded by the Rev Patrick Grant in May 1749. At Grant's request, a visitation of the manse was made on 13 March 1750. An edict had been made after sabbath service and Grant had written to those heritors residing outwith the parish. Four of the nine heritors attended or were represented: Alexander Mackenzie of Fairburn, Colin Mackenzie of Kilcoy, Thomas Mackenzie of Ord and

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[13]'Side walls under couples' might suggest cruck framing. However, other historical records indicate that one should not assume that the term 'couple' necessarily means cruck framing. Many tacksmen's houses of the early nineteenth century had outside kitchens.

[14]SRO CH2/92/4, 94-95, 100-101; SRO Forfeited Estates Papers (1715), Mackenzie of Fairburn; Claim of Kenneth Mackenzie, merchant in Inverness.

John Grant as representing his father, James Grant, factor on the forfeited estate of Lovat. In attendance were John and Robert Sutherland, masons at Foulis, Donald and Roderick Morisons, squarewrights in Dingwall, William Findlay, slater at Drummond, and a number of 'discreet men of the Parish'. The manse was 'narrowly' surveyed and found to be 'insufficient & concluded Uninhabitable both in mason wright and Glassier work'. The presbytery, with the concurrence of the heritors, decided that a new manse should be built 'together with the office houses allowed a Minister by Law'. The minister produced several 'plans' (apparently written specifications rather than drawings) and one was 'agreed upon by all Concerned as a proper model of the Manse of Urray'.

It was determined that the manse should be:

> a house forty three feet long between the Gavels. Fifteen feet broad between the walls. The heighth of the Rooms seven feet and an half below the Joists for the lower Rooms. Eight feet and an half for the upper Rooms below the Joists. The windows to be four feet high and of proportional Breadth. The lower Rooms to be floored with Deals. All the Rooms to be plaistered above. The doors to be pannelled & bound work. The Roof to be Anchor Roof Slated with Bamff or Isedale Slate. ... The windows to be shash. One for Each Room. Two for the dining Room. A stair in form of a scale stair to the whole heighth. The Kitchen Cellar Barn and Stable to be built in such form

as should be agreed between Mackenzie of Fairburn and the minister.

The tradesmen were then asked to 'withdraw & to bring in particular Subscribed Verdicts in their Respective Crafts' of the cost of the specification. After conferring, the tradesmen produced the following estimate:

	£ sterling
The Particular Note of expences necessary for the Mason work of a house of the above Dimensions after Deducing what materials may be had from the old Manse	£49 15 6
The Slate work including Slates Lime Nails and workmanship	19 6 5
The wright work including materials Locks Banks & other Iron work together with Glass and Weir	75 8 4
	£144 10 5

Several of the heritors refused to pay for such an expensive manse. However, Colin Mackenzie, the minister of Fodderty, and a well known money lender who later became a landowner in his own right, offered to make over a year's vacant stipends which he had obtained from the Barons of Exchequer (the Earl of Cromartie had been forfeited for his role in the '45 Rebellion). The heritors 'retired & returning after some time' eventually agreed to this proposal. They decided to contribute £60-6sh-6d 'out of their own Pockets' (over and above the legal provision for a manse) and the value of the old manse. Mackenzie of Fairburn, a prominent landlord heavily involved in the cattle trade, agreed to be undertaker and the presbytery ordered the

heritors to stent themselves (calculate and undertake to pay their respective shares on the basis of their valued rents) and report back to the presbytery[15].

On 19 June the presbytery approved a stent worth 1,000 merks (£55-11sh-1d) but in November the minister reported that the building of his manse had been 'retarded for a long time by the Backwardness of some of the Heretors in paying their Quotas'. In particular it was complained that the stent roll was incorrect in that the forfeited estate of Lovat in the parish of Urray did not appear in the valuation roll for Ross-shire, being placed entirely under Inverness-shire. The presbytery, finding it 'hard and a loss to the General Interest of the Parish that the work should stop for such trifling Objections' determined that the contribution due from the Lovat estate should be calculated on the basis of its proportion of the minister's stipend. In the meantime they upheld the stent roll and ordered their decreet to be extracted in case further legal procedure was necessary, 'leaving it to those who reckon themselves aggrieved to redress themselves the best way they can'. Payment was duly made by the factor for the Lovat estate in November 1751[16].

This was not the end of the matter, for in July 1752 the minister presented to a meeting of the presbytery a letter from Mackenzie of Fairburn stating that he had spent abut £150 but that 'more money was needful to finish the work'. The minister pointed out the inconvenience he was under from not having a manse and the presbytery agreed to a further visitation. Two months later a meeting took place between the heritors, represented by Mackenzie of Fairburn, Sir Alexander Mackenzie of Coul and James Grant, subfactor on the Lovat estate, the tradesmen, Donald and Roderick Morisons, wrights and Donald and William Mackays, masons, and two 'discreet' men of the parish, John MacWilliam vic Andrew and Donald McWilliam Rioch. Fairburn stated that:

> ...he in many Instances as well as by recent Experience in the Parish having seen the Error and Loss of Heretors in neglecting the Building & Reparation of public Edifices from which mistake it commonly happened that Parishes were put to considerable outlays at every Vacancy or at least in the Course of Twenty years whereas if Heretors consulted their own Interest these publick Edifices should be built with the same Care that any Gentleman takes in Building for himself. But it happened in such Cases that what was the Business of all was made the Bussiness of None. That he therefore being Heretor of greatest Extent in the parish (Lord Seafort excepted who was out of the Nation) not from any views of a Jobb but to do Justice to himself & his brother Heretors undertook the Reparation and having undertaken from Such motives he Early forsaw an Impossibility of accomplishing his End by the sum decerned for the Work for albeit he might patch up a Fashion of a passible Manse with cheap and insufficient Materials built by such hands as would work slight and at an easy Rate yet the Parish would only gain by this easy Bargain The repetition of an equal or greater sum very soon again.

With this in mind, Fairburn had decided to 'purchase all materials of the best kind' and have the manse built by the 'most able hands' and then 'referr himself For

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[15]SRO CH2/92/7, 174-78.

[16]SRO CH2/92/7, 187, 194-95.

Reimbursement to the Honour of his Brother Heretors and Justice of this Presbytery'. He then produced various receipts of the 'respective Dealers in Timber & Lime' and the builders and requested that an inspection be made of what had been built of the manse and barn in order that the presbytery could order what was necessary to complete the work.

Fairburn's statement made a good deal of sense and indeed many parishes suffered from kirks and manses being built with substandard materials and poor quality workmanship. His use of the word 'Jobb' referred to the system of patronage whereby people exerted influence in the right places to obtain profitable offices or undertakings. Fairburn's rather irregular way of proceeding, however, might not have been too popular with some of the heritors. The Mackenzies of Coul, for instance, were experiencing financial difficulties during this period and cannot have been too happy at the prospect of additional outlay (their own parish was Contin).

An inspection was duly made and after 'comparing minutely' the building with the accounts which had been submitted, everybody present decided that Fairburn's application was reasonable, particularly as the 'materials especially in the Timber work' were 'considerably better than ordinary and Stated at a reasonable Rate'. It was found that just over £150 had been expended. However, 'several Articles of the manse were still undone particularly all the walls Partitions and Roofs bare wanting Plaister Either of Clay or Lime'. The wrights produced an estimate of what was required to finish the building:

To Leading two hundred Loads of clay for the Partitions at one penny p[e]r Load		16	8
To Pionerage and claying said Partitions	1	0	0
To ten Bolls Lime for said Partitions		10	0
To thirty Bolls Lime for the four Roofs	1	10	0
To nails for the four Roofs	2	7	4
To workmanship of the four Roofs and plaistering the Clay partitions	2	0	0
To Lath for said Roofs	2	8	0
	£10	12	0

The presbytery and the heritors agreed that the estimate was 'very just and reasonable' but as there was 'no office house built or so much as attempted but one Barn it was found absolutely necessary to build Kitchen Byre and Stable'. An estimate was drawn up by the masons and 'discreet' men[17]:

To six Roods mason work for Stable Byre and Kitchen at twenty merks p[e]r Rood	6	13	4
To Pionerage	1	10	0
To Leading Stone & Clay	5	0	0
To Twenty Bolls Lime	1	0	0
To Eight Couples Six Shillings Each	2	8	0
To Eighty one Rails at a Sixpence Each	2	0	6
To thirty Three Dozen Cabbers at a Sixpence pr Dozen		16	6
To four Windows		9	0

[17]SRO CH2/92/7, 228, 220-224 (pages 220-29 are repeated).

To four Doors		16	0
To four Locks and four Pair Bands		10	0
To Divet		1	4	5
	22	7	9

On 'finding to how high a Rate The work had already swelled up', the presbytery decided to only allow a sum of £8-3sh-4d to be expended on further building work, 'Begging Mr Patrick Grant to accomodate himself the best way he might with the said Sum'. The minister, 'to ease the Parish condescended ex Gratia to plaister the walls of the house out of his own Pocket' and Mackenzie of Fairburn was then thanked for the 'just and honourable Part' he had acted and the 'considerable Trouble and personal Expence' he had been put to. It was then decided that the heritors should make a further contribution of £55-11sh-1d made up of £37-5sh-1d 'superexpended' on the manse, £10-6sh-0d to make it habitable and £8-0sh-0d for office houses. The presbytery felt themselves justified in this: for while it might appear that the legal provision for a manse had been exceeded, the heritors had so far only paid 1,000 merks, the other 1,000 merks having come from the vacant stipends gifted by Colin Mackenzie. Moreover, 'Manses in different Corners of the Nation had been built at a higher Expence than the sum here charged' and there were some legal grounds in view of the sworn valuations provided by the tradesmen. The heritors were slow to pay up and on 14 November the minister gave in a valuation roll of the parish and the presbytery ordered the heritors to pay their respective shares either to Grant or Mackenzie of Fairburn. It was, however, only after the first steps of legal action had been taken that the heritors paid up (the factor for Lovat settled in August 1754)[18]. One wonders what the heritors felt when faced with a major repair of the kirk in 1754-55[19].

The documentary record suggests that the manse of the 1750s was of similar dimensions to its predecessor and indeed may well have utilised the old foundations. Beaton has pointed out that the surviving building is rather tall for its breadth and has suggested that this is because a two-storey manse was built on the foundations of a single storey and 'lofting' or 1½ storey manse[20]. The standard of construction, however, was higher. The reference to an 'anchor roof' probably means that the roof beams were to be set into the wall head rather than rested on the top[21]. While the earlier manse probably had a thatched roof, the later one was to be roofed with

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[18]SRO CH2/92/7, 224-26, 230; SRO Forfeited Estate Papers (1745), E769/64/2 Discharge by Patrick Grant.

[19]SRO CH2/92/7, 266-69, 277-78; E764/64/3.

[20]Elizabeth Beaton, pers. com. 26 August 1993.

[21]Dr Bruce Walker, pers. com. 5 July 1993. The manse of Lairg in Sutherland was described in 1750 as having its 'walls covered with an anchor roof' while the schoolhouse of Lairg (1812) had 'An anker roof thatched with divot and heather', Grant, M W, *Kirk, manse and school in 18th century Sutherland*, (1973), 10, 24.

slates from either Easdale in Argyll or Banff[22]. All the outbuildings were built with stone and clay, probably with lime, or with a lime harl but were roofed with divots (turf). While Urray manse was of the standard design for Highland manses, it was nevertheless a superior version. Indeed, according to the Old Statistical Account, it was, when built, 'the best in the synod' of Ross[23].

It comes as no surprise to learn that the Rev Patrick Grant, minister of Urray from 1749 until his death in 1787 and a Moderator of the General Assembly, belonged to that group of churchmen known as moderates whose rejection of the sterner tenets of Calvinism was accompanied by a desire for a higher standard of living. Like many of his contemporaries, Grant was a substantial farmer in his own right. Alexander Wight, who surveyed the Northern Counties in 1781, described the Rev Grant's manse as:

> A neat house, in a beautiful plain on the bank of the Orrin ...The surrounding fields, though small, are were cultivated, and show that the possessor has a taste for husbandry. He does not confine his labours to spirituals, but instructs his parishioners, both by precept and example, to better their circumstances. When the Doctor settled here, the fields were naked, without a tree or shrub of any kind, not a ridge of tolerable corn or grass. Now not only the glebe, but a small farm he possesses, give satisfaction; which is heightened by the plantation of trees round the house. ...the soil, originally poor, and covered with short scrubby heath, is so much reclaimed as to yeild good crops of corn, clover, and turnip; ...Neither is the garden neglected ...He has also succeeded in the arduous task of preventing ravages of the water of Orrin upon its banks ...[24].

The manse of the 1750s continued in use until a new one was built in 1814 (now known as Old Urray Manse) - one of a number of new manses built during the late eighteenth and early nineteenth centuries in Ross and Cromarty when manses in general reached a standard similar to the houses of the minor gentry[25].

Conclusion

The building record for Urray, incomplete as it is, suggests two main points. The first is that the number of substantial stone and lime houses built during the seventeenth and early eighteenth centuries was probably much greater than the surviving buildings would have us believe. The second point is to emphasise the real improvements which were beginning to be evident by the mid-eighteenth century; improvements

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[22]For Banff slate see Beaton, E, 'Sources of Slate in Banffshire and Aberdeenshire', in Riches, A and Stell, G (eds) *Materials and Traditions in Scottish Building*, (1992). Grey slate from Banffshire may have been cheaper than blue slate, Grant, (1973), 23.

[23]Gifford, (1992), 71-71; *Old Statistical Account*.

[24]Wight, A, *Present State of Husbandry in Scotland*, vol IV, part 1, (1784), 228-29.

[25]Gifford, J, (1992), 466; Mowat, I R M, *Easter Ross 1750-1850: the Double Frontier*, (1981), 94.

which were to percolate down the social scale. In due course Highland tacksmen were building 1½- to 2-storey houses of stone and lime and with slated roofs. At the same time, Urray manse with its traditional kitchen and outbuildings and other, more 'vernacular' manses [26], remind us that the process of improvement was uneven and did not culminate until the late-eighteenth to early-nineteenth centuries.

Acknowledgement

I am very grateful to Elizabeth Beaton for her comments on a draft of this article.

[26]Beaton, E, 'Some Patterns in Highland Building', in *Highland Vernacular Building* (1989); Elizabeth Beaton, pers. com. 26 August 1993.

CASTLETON, KING EDWARD, ABERDEENSHIRE:- AN INVENTORY AND A COMMENTARY

Harry Gordon Slade

Craigston NRA/S 2570/4

Inventory of bigging given off by William Duff in Castleton to John Mackie entering tennant valued May thirteen one thousand seven hundred and thirty one years by John Rudniman in ....., James Cook in Culbeach, John Milne in Montblealton and Wm. Mason in Newtoun of Melrose.

Imp:	An Cow byre seven couples door band and checks at	9. 0.0
It:	An new barn 3 couples back and fore doors keylock and bands at	13. 6.8
It:	An Pigs house 6 couples door bands and checks at	10. 6.8
It:	An kiln barn 3 couples back and fore doors bands lock and key wt an kiln head and kiln	15. 6.8
It	An Ox byre 6 couples wt door checks and bands at ane for stall	5. 0.0
It:	An muckle barn 3 couples back and fore door bands lock and key	9. 0.0
It:	An yard door	0.10.0
It:	An outer stable door checks and bands and for stall	2. 6.8
It:	An inner stable door checks and bands	4. 3.4
It:	The kitchin 1 couple pans and roof door lock key and bands	5.13.4
It:	An ... meal hous 3 couples door lock and key	5.13.4
It:	Timber on Dandshillock valued at	6. 0.0
	sume	86. 6.8

The above inventory is signed and excepted of by John Mackie incoming tennent and the above and Patrick Duff off Craigston att Castleton

Day and date afor to

John Rudniman — Patt. Duff.

James Cook — Mackie

John Milln

William Mason

The inner chalmer of the mansion house with two window cases and glasses and weared two stanshions with an door lock and key.

The hall an window cassed glassed and weared two fixed presses with fowr shots bands and doors two porthal doors and snecks.

An gun case with door and bands an little press above the chalmer door.

Item: the hall door with lock and bands with a folding table in the entrie.

Item: the Cellar with an timber window with lock door and band.

Item: the stair door with bands and sneck.

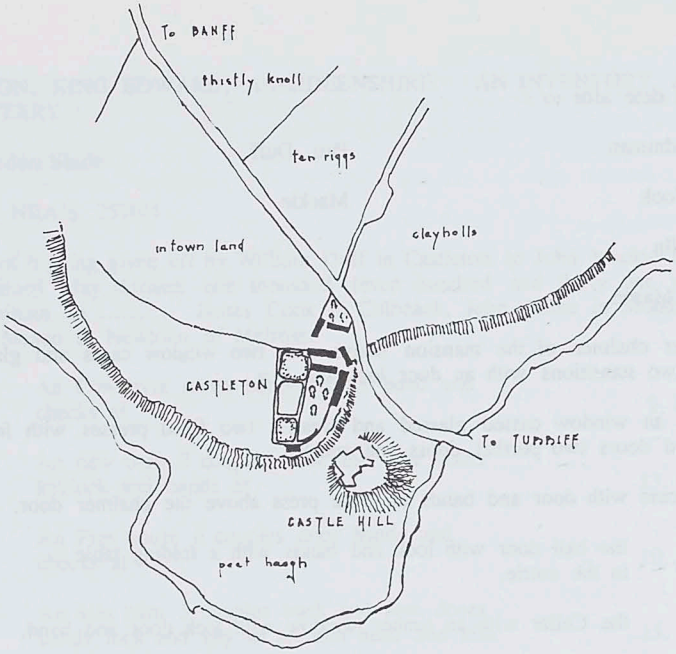
Item: the east chalmer with three lights broded and glassed sufficiently lofted and cyled with door and bands.

Item: the Wardrop with an light glassed and broded with door and bands.

Item: the west chalmer with two lights broded and banded an light of glass cyled and lofted with door and bands.

Item: an uther yeatt value to John Mackie att two pounds Scots.

Duncan — Patt: Duff
John Smith — Mackie



Sketch plan for Castleton: taken from William Urquhart's Survey of March 1779.

This inventory, the result of my most recent foray amongst the Craigston papers is published with the permission of Major Bruce Urquhart of Craigston.

Castleton, or rather the farm of Castleton - for Castleton itself was, in the eighteenth century. a small estate - lies close to the site of the medieval castle of King Edward. The inventory was drawn up on 13 May 1731 between Patrick Duff, laird of Craigston, William Duff, the outgoing tenant and John Mackie, the incoming tenant, and gives the details of the buildings of the farm, valued at £86.6.8, and of the mansion house, on which no value was placed. The farm at the time of James May's survey of 1774 ran to a little over 110 acres with a rent set at £37.11.7. Five years later the acreage was 167 at a rent of £43.16.0. This was to diminish when the 24 acres of woodland at Dandshillock were separated from the farm at the laying out of the post road from Turriff to Banff. At the time of the inventory the timber on Dandshillock was valued at £6.0.0.

The farm buildings were extensive: a cow byre of seven couples, an ox byre and a pigs' house of six couples each, three barns - new, muckle and kiln - each of three couples and with fore and back doors (the kiln barn, with a kiln and kiln head, may have resembled the larger kiln barn at Rothiemay), a meal house of three couples, and a kitchen of one. The kitchen it is noted has 'pans and roof' - that is timbers running horizontally between the couples, and of a rather more finished nature than in the other buildings. There are two stable doors and a stall listed, but this may mean that a stable was intended but not yet built, although some of the materials are

to hand. The same could be true of the yard door. The barns, meal house and kitchen are secured with locks for keys, and oxen seem to be the principal draught animals. In fact the farm may be going through a period of improvement.

The dwelling has a separate and unvalued sheet on which it is denominated 'mansion house'. This suggests that it has been the residence of the proprietor of the estate, and that it is likely to be demolished. The only thing of value to John Mackie about it is the yeat at £2 Scots.

There is in the present house of Castleton a water colour showing an earlier house, demolished in 1863 to make way for the new farm court. This represents the successor to the house in the inventory and I will come to it in due course, although at first I did attempt to reconcile it to the 1731 description. The attempt was useless: what became clear instead was that the 1732 document describes a small tower, only a little more than a bastle, and rather less than a tower house.

The accommodation, a cellar, hall, inner chamber, two chambers and a wardrobe, or closet is arranged on three floors. The kitchen is detached and there is no mention of attics. The cellar is on the ground floor with a single door secured by a lock and key, so presumably it is an external one. The timber window is either an enlargement of an earlier light, or a later opening.

There is no mention of an outer door, so the hall door, again secured from intruders by a lock, and, presumably, by the 'uther yeat' gives access to the tower at first floor level from a forestair. This door opens into an 'entrie' in which there is a folding table, which may be something in the nature of a deas. The entry is probably nothing more than the lower end of the room screened by a timber baffle or bench.

Both the hall and inner chamber have glazed windows in frames or casements. Since there are bars the casements must be inward opening, although at this date vertical sliding sashes are a possibility. The hall is well equipped with presses; two fixed, a little one above the chamber door, and one specifically for guns. The stairs are not described, beyond the fact that there is a stair door, and there is no clue as to their position. The form is almost certainly newel, and they are probably at the upper end of the hall, convenient to the inner chamber doors. There is no clue either to the nature of the internal partitions. As only one cellar is mentioned these are likely to have been of timber. A barrel vaulted cellar is unlikely to support a masonry cross wall, one that has a beamed roof cannot.

The two chambers are lit by old-fashioned windows, the upper parts glazed, the lower secured by wooden shutters, and opening off one of the chambers is a closet or wardrobe. Both rooms are 'cyled'; that is they are not open to the roof, but ceiled either with wood or plaster. As 'cyle' also means the lower end of a couple or rafter, this term may indicate that the ceilings are coombed. There is no mention of attics or garrets. This mansion may date from the first half of the seventeenth century.

Mrs Sharp, the present mistress of Castleton, allowed me to make a rough copy of the pre-1863 drawing of the farm house. This shows it to have been a long, low building with three rooms and an entrance lobby on the ground floor. Judging from the chimneys, one of which is a part timber lum, the kitchen was at the east end with

a hall and upper chamber. Because of the relative positions of the entrance door and the hall fireplace there must have been some form of entry baffle. The stair seems to have been a semi-newel at the junction of the kitchen and the hall, if the evidence of the small window close to the eaves can by relied on. There was some sort of accommodation on the upper floor, though the rather curious drawing of the west gable makes this difficult to interpret. The entrance door was double leafed, the roof thatched, and the indeterminate object on the wall between the kitchen and hall windows may be an aviary. Presumably there was an entry to the kitchen from the farm court which lay behind the house. Beyond the house is a roofed building with chimneys in each gable which may be the older mansion.

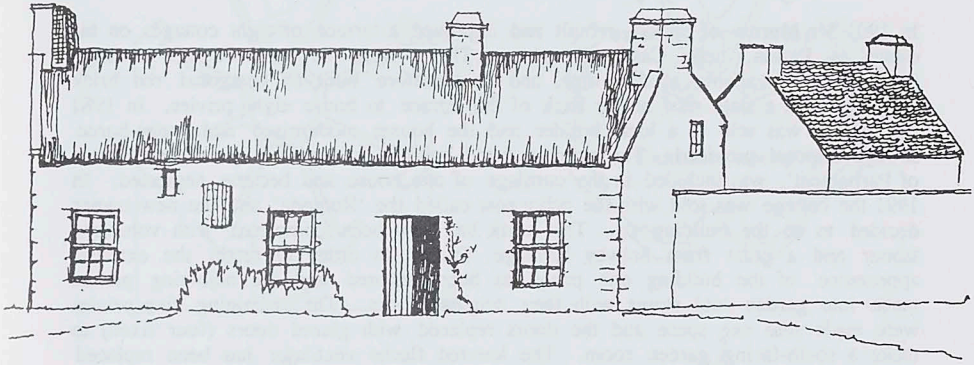
If the interpretation of the plan of the house is correct it is an interesting example of what in England was quite usual in superior farm houses of the seventeenth and early eighteenth centuries, before the double-fronted central entry plan became widespread. How far it was used in Scotland, and how far it still survives is another subject for investigation.

William Urquhart's survey of 1779 shows Castleton standing on the brae above the Water of King Edward to the west of the Banff-Turriff post road. Since then the line of the road has been changed, and it now runs to the west of the farm buildings. The ruins of the old castle of King Edward are shown on Castle Hill.

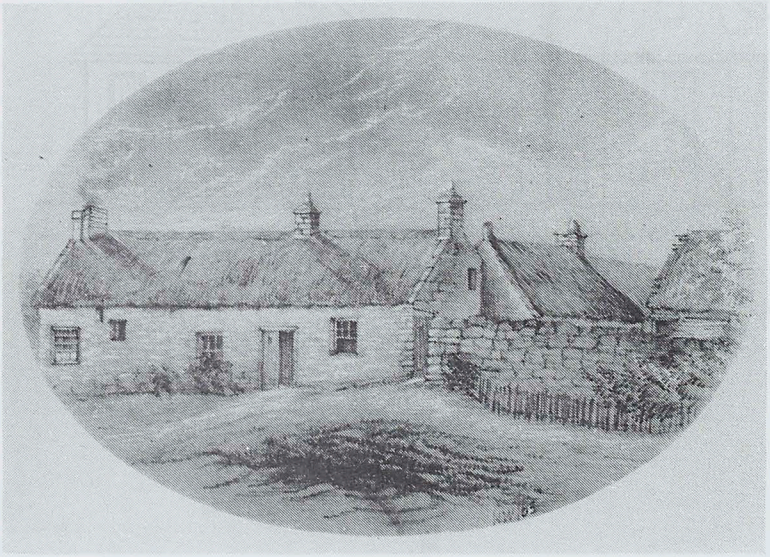
On re-reading the inventory it is possible that 'an little press above the chalmer door' is not a piece of wooden furniture, but a press within the thickness of the wall. This would be possible if the wall between the Hall and chalmer contained the fireplaces and lums. If this is a correct interpretation then the east and west chalmers would have been separated by a stone wall and not a timber partition. A further consequence would be that either the cellar was vaulted or had a dividing wall. The unwisdom of being too wise too quickly!

Acknowledgement

Figure 3 is reproduced by kind permission of the Royal Commission on the Ancient and Historical Monuments of Scotland



The vanished post-1732 house (from a drawing of Castleton)



Castleton Farm House, 1863

Interesting Snippets

THE PARTON PRIVY

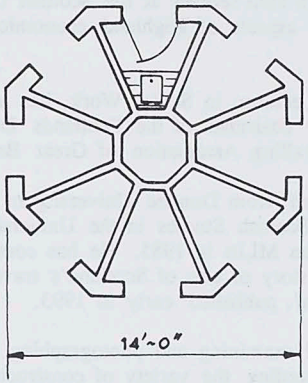
Kenneth C McCrae

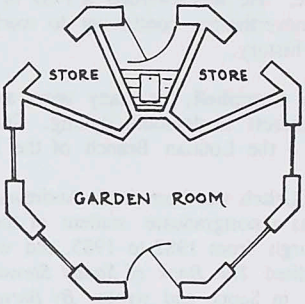
In 1901 Mr Murray of Parton, rebuilt and improved a terrace of eight cottages on his estate at Parton, near Castle Douglas. There were no water-borne sewerage arrangements available at that time, and he therefore built an octagonal red brick building[1] with a slate roof at the back of the terrace to house eight privies. In 1981 the terrace was sold to a local builder and the houses modernised and water-borne sewage disposal provided. The privy, a listed building known locally as the 'Houses of Parliament', was included in the curtilage of one house and became neglected. In 1991 the cottage was sold with the privy now called the 'Rotunda' and the new owner decided to do the building up. This work has now been completed with voluntary labour and a grant from Solway Heritage Trust. In order to retain the external appearance of the building one privy has been restored and the adjoining privies made into garden tool stores with their original doors. The remaining five privies were made into one space and the doors replaced with glazed doors (four fixed) to make a south-facing garden room. The louvred fleche ventilator has been replaced with a new replica with lead flashing and a small finial.

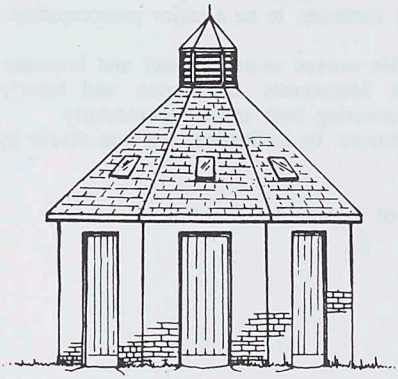
A quotation from Charles Sale's book *The Specialist* may be appropriate: 'Lem I seen that eight hole job you done at the Corners and she sure is a dandy' and so is this one.

[1] NGR. NX695701, and see drawing for principal dimensions and location map.

THE PARTON PRIVY







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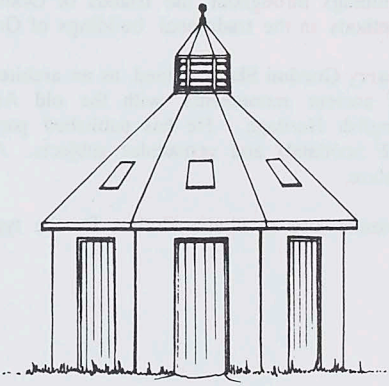

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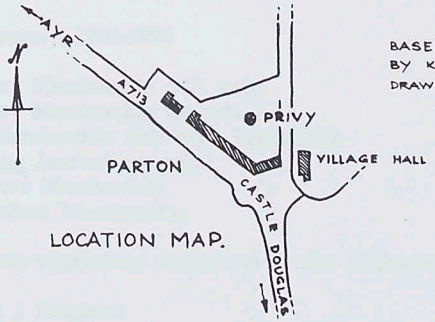

LOCATION MAP.

BASED ON A DRAWING SUPPLIED BY KENNETH C. McCRAE. DRAWN G.J. DOUGLAS, MAY 1993.

CONTRIBUTORS

Malcolm Bangor-Jones was educated at Jesus College, Oxford and the University of Dundee. He was awarded a PhD in 1987. Now a civil servant at the Scottish Office he is nevertheless continuing to work on various aspects of Highland economic and social history.

Norma Campbell, for many years a University Lecturer in Social Work, has a life-long interest in drystane dyking. She is currently chairman of the Pentlands Dyking Group - the Lothian Branch of the Dry Stone Walling Association of Great Britain.

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Alison & Paul Newman spent four months in 1991 examining and photographing rural buildings throughout the Islands of Orkney. Recording the variety of constructional methods in the traditional buildings of Orkney continues to be a major preoccupation.

Harry Gordon Slade trained as an architect. He worked as an architect and inspector of ancient monuments with the old Ancient Monuments Directorate and latterly English Heritage. He has published papers covering both castles (particularly NE Scotland) and vernacular subjects. A dilettante by inclination and bon viveur by nature.

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