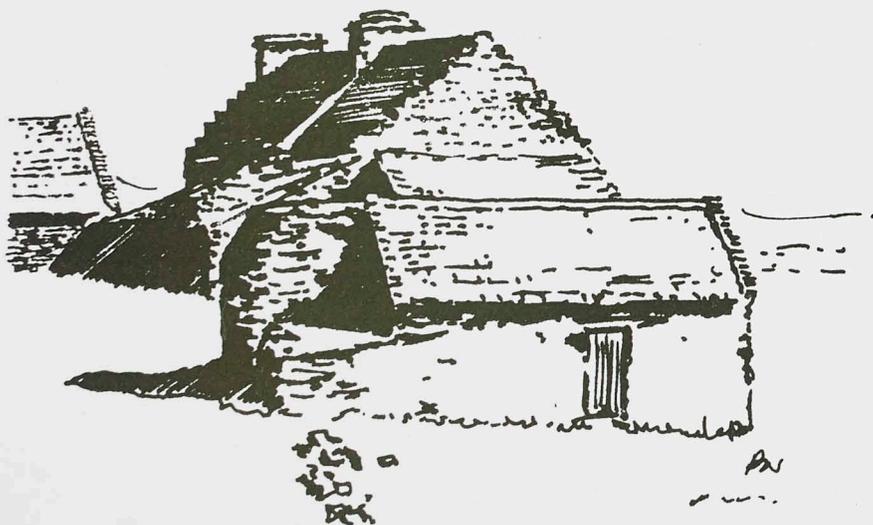


VERNACULAR BUILDING 18

Scottish Vernacular Buildings Working Group

1994



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This volume of *Vernacular Building* is dedicated to Alison Newman and to Ian Smith, both enthusiastic members of SVBWG who very sadly died in 1994.

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Cover: Outshot neuk at side of kiln, Hestikelday, Holm, Orkney by Paul Newman.

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PREFACE

This is my first stint as editor of *Vernacular Building*. Since offering to take on the task my employers have generously agreed to pay my fees on a two-year Diploma in Building Conservation which commences in April 1995. Given the demands that the course will place on my time, I shall be unable to continue as editor. Perhaps time will be less pressing in the future and I shall have the opportunity to take on the task again.

As always the range of building types covered in *Vernacular Building* is wide. Munro Dunn's scholarly paper on cotton factory and iron-works villages begins with a detailed description of the economics underpinning these settlements to set the scene for a discussion of their layout, construction and amenities. In similar fashion, John Harrison describes wooden huts and shelters in 17th century Stirling before examining the evidence for the use of hingin' lums in the same period. Paul Newman covers a generic building type: the Orkney farm kilns and illustrates his paper with marvellous drawings while Graham Douglas' two short descriptions of farm steadings demonstrate how this building type is subject to constant adaptation in response to the changing needs of agriculture.

An interest in vernacular buildings often leads to an interest in the people who lived and worked in them. These social factors can shed light on form, construction and layout, revealing how they are often the result of necessity rather than a response to the vagaries of architectural fashion. Three of the papers in this edition refer to specific individuals and in so doing bring to life the buildings described therein in a way that a simple description of construction and layout cannot rival. The papers submitted by David Alston, Jocelyn Rendall and Harry Gordon Slade are thus all the more commendable for the wider understanding of traditional buildings that reference to real characters makes possible. Sam Seabrook and Brian Wilson's short report on the rebuilding of Jeanie MacAlpine's Inn reveals the importance of different specialist advisers required for even the most basic of structures.

Paul Mitchell

Articles, reports on work in progress and reviews for the next issue of *Vernacular Building* are welcomed and should be submitted to the editor at the address below:

Veronica Steele

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John Sinclair House, 16 Bernard Terrace, Edinburgh, EH8 9NX

OBITUARIES

Alison Newman

Members will remember Alison and Paul Newman's first appearance in *Vernacular Building* with their article on 'Simmens and Strae: Thatched Roofs in Orkney' in *Vernacular Building* 15, with its wealth of detail and wonderful line drawings.

Alison, who studied English at the University of Aberdeen and worked as a teacher before joining the reporting staff on the Lothian Children's Panel, became interested in architecture, and vernacular buildings in particular, through her husband's work in Edinburgh University's Department of Architecture. During a sabbatical year in 1990-1991, they travelled widely in Europe looking at both old and new buildings, spent four months studying rural buildings in Orkney and many weeks doing research on archives in both Edinburgh and Orkney. Alison's particular contribution was her interest in archives, and talent at looking at evidence from a historical perspective.

So far Alison and Paul's work has led to three further articles for *Vernacular Building* and to the creation of a large slide archive. Their book on the Rural Buildings of Orkney is to be published in due course. Their interest in the buildings of Orkney also led to the purchase of a farm at the end of 1993 which Paul, who has recently retired, is restoring and which will become his permanent home. Alison's enthusiasm, intelligence, attention to detail and charm will be missed by all those SVBWG members who met her.

Dorothy Kidd

Dr Ian Smith

It is with great regret that we record the tragically early death in July 1994 of Ian Smith as the result of an accident while on the Isle of Canna. Ian was an Investigator with the Royal Commission on the Ancient and Historical Monuments of Scotland and was rapidly becoming an acknowledged authority on the early historic settlement of Scotland. His interests, however, were very wide-ranging and in the course of a remarkably energetic life he was an active member of the Scottish Vernacular Buildings Working Group. He served on the Council, played a major role in organising the Uists Conference and regularly attended events. We will remember Ian's infectious enthusiasm, extensive knowledge and warm friendship. He will be greatly missed.

Malcolm Bangor-Jones

WOODEN HUTS AND SHELTERS IN 17TH CENTURY STIRLING, WITH AN EARLY EXAMPLE OF A HINGIN' LUM

John G Harrison

In 17th century Stirling wooden buildings were used as shelters in time of plague, as a workman's lodge during building of Cowane's Hospital and as guard houses. Most consisted of deals on a wooden frame; their advantages were speed of construction and the possibility of re-using the materials. The Main Guard, built on Broad Street in late 1674, is the best documented of these structures; the accounts reveal the materials for the original building and for subsequent maintenance, through to demolition in 1683 as well as something of the structure, most importantly, a hingin' lum, the earliest use of the term so far known.

1606: 'Lugis' for plague victims

On 16th October 1606 the Council authorised payment of £48 Scots (all costs are in £ Scots: £12 Scots=£1 sterling) for 100 deals bought by the treasurer 'to be lugis to thair diseisit and seik personis in the Brighauch in the present vistatioun'; the heavy cost of providing luges and maintaining poor people in then was cited as one reason for levying a stent on the population in May 1607.¹ Marion Young gave up her latter will in her ludge on the Bridgehaugh on 26th Sept 1606, dying before the end of that month.² Deals were again provided for luges when plague struck in 1645, this time built at Chirmerlands, a little further out of town.³ Jonet Pollock later said that 'the tyme that the plague was in Sterling ...(she and her husband, with their two horses, were) out in a hut at the Park Dyke', which is to the south of the town.⁴ It seems that there were several encampments, probably some for the sick, others for the healthy. It is likely that the 100 deals mentioned in 1606 were only a part of the total used and there could have been other types of wood supplied.

The ludge at Cowane's Hospital

Work began on building Cowane's Hospital in 1637 and one of the builders' first tasks was to construct a ludge, presumably to shelter the workers and some of their equipment. The only materials recorded are 50 deals (cost £29), 800 plencher nails and 500 flooring nails (cost £7 6sh 8d), that is 26 nails to each deal! In the week in which he put it up the wright also made two mortar meirs; he had some assistance from James Rind, the mason, but this may have been minimal. The wright's wages

for this week were £3 12sh 0d and the total cost of the ludge was around £43.⁵ There is no information about structure, no record of any attempt at wood preservation and the date of the ludge is unclear.

The Main Guard

There had been a guard house on Broad Street during the English occupation of the 1650s; the decayed remains (again consisting of deals) were mostly demolished in 1660 when the residual timber was handed over to the military authorities.⁶ In November 1674 the Council ordered work to begin on a new guard-house on the old site⁷ probably in response to rising political-religious tension. The council pleaded, unsuccessfully, for Exchequer assistance with the cost of coal and candle for the guard.⁸

This was a far more sophisticated and expensive building than the luges and we have much more details about its construction. The total cost was £771; for comparison, substantial stone and lime cottages at Fisher Row, built in 1696, cost £150 each.⁹ Two men spent two days raising and relaying the calsay at the site, using sand and clay, presumably to make a foundation and floor. Lime, sand and clay were also provided for building 'the stone gavell' and the mason was paid £15 wages for building it, implying around 4 weeks work and a substantial structure. The 'hinging lumb', for which 30 deals and 500 nails were provided, must have been against this wall. The deals and the wages £6 13sh 4d to Christopher Russall, the wright who built it, brought the recorded cost of the lum to £24 13sh 4d. Even allowing for the rampant corruption of the period, these wages could cover about 10 days wright work and Russall must have done more than just nail the deals together, perhaps constructing part of the lum from wicker and covering it with clay or dung. The fire (later accounts show that it was usually a coal fire) was contained in an iron 'chimey' or grate, weighing 26 stone and costing £60; it was fitted with 'cleiks and rodds' and when it was repaired, between 1678 and 1680, it took 4 men to carry it back from the smith's workshop.¹⁰

Apart from this stone gable and the chimney and a possible foundation, the guard-house was made of wood and nails. The 607 deals cost £309, 103 tries cost £69 or 13sh each, 'twa single tries for supporting the gard' cost 13sh 4d each, '6 long tries' cost 16sh each, '28 doubell tries' cost 24sh each and '2 long tries doubell', the heaviest timbers mentioned, cost 28sh 4d each. Trie (Anglice 'tree') is usually glossed as 'beam', but as this series shows, it embraced a very wide range of specifications. At the lighter end of the scale, in 1674-5 two tries at 8sh each were used to make hoe shafts. A 'double trie' seems to be heavier, rather than longer than a 'single trie' but whilst all these terms are common in the Stirling records their precise meaning is unclear. Tries were clearly used as a supporting framework for the deals, further

supported by the stone and lime gable.

Bands or hinges were provided for the doors and windows; door and window frames seem to have been of wood. There is no record of glass for the windows which were probably shuttered. Nor is there any record of thatch so the roof was probably of deals. Huge numbers of nails were used; 150 garron nails cost £9, 100 double garron nails cost £8, whilst 'doubell and singell flouring naills' cost £68. Since 'flooring nails' had cost only 10sh per 100 the previous year, this last price implies at least 7,000 nails, probably far more! Christopher Russall did all of this wright work, charging £60.

John and Robert Steills (who did all sorts of odd jobs for the Council at this time) were paid £3 8sh for 'poynting the gaird' with lime and hair, implying that this involved internal sealing of the joints. And, as a mark of how complete the accounts, are, two blind nails were provided 'for hingin thair musketts' as well as 'twa cleiks for hingin the drumes' and 'ane par bands to the candell box'.

The following year the Steills were again paid for pointing the guard and doing more work on the calsay. A payment of 26sh 8d for two spars for the guard 'when the wind was like to blow it over' with a further 10sh worth of wright work, suggests a half-hearted effort to remedy a structural flimsiness which was already apparent. In 1676-77 more vigorous efforts were made to prolong the original design life. Alexander Glen was paid for extensive timber work, including putting in 10 'raughters' or rafters and, more revealing of the original failings, £28 6sh was spent on about 100 Scots pints (170 litres) of tar and 4 pints (6.8 litres) of rosit and a further £11 4sh on 6 stone of ocum. Scaffolding was set up, presumably to give access to the roof for this to be applied. The quantities suggest a general, overall tarring rather than mere caulking of joints. And space was found for a further £11 worth of nails to be knocked into the woodwork.¹¹ During the next three years only minor repairs were carried out, though the installation of a trevis and stall for a horse in 1678-79¹² introduced yet another threat to the woodwork in the form of dung and urine. In 1681-82 the guard was pitched again, materials and work costing £21 and yet more deals and tries were supplied - and secured with a final helping of nails.¹³

However, a little over a year later, on 22 October 1683¹⁴ the Council gave up the unequal struggle and noted that the guard-house was 'now turned naither watter nor wind tight, the samin being of timber, is of great expence to the toune, and they resolveing to have the guard in some convenient place of stain and lyme, they have appoynted the said old guard hous to be rouped and sold accordingle.''

In spite of this resolution, there is no record of any of the wood being sold but some was re-used for repairs at the Bridge Mill and perhaps on other works about the town.¹⁵

The guard at the shore

Fragmentary records of guard-houses at the bridge and main gate imply that they were in stone buildings. But in 1678-79, during a particularly tense period, facilities were improved at both these guards and a new guard was built at the shore.¹⁶ Again details are sparse. 53 deals were supplied by Bailie Watson (a merchant who specialised in timber) as were two tries, which were sawn 'to call into the ground', that is, they were sawn to a point and driven in to the ground. The wright set it up and did several other, unspecified tasks within a week.

Discussion

A hut of deals on a framework of 'tries' could be nailed together in a few days. It was not cheap but even this might be overlooked if speed was of the essence, as in the case of the luges for plague victims, or if it was anticipated that the materials could be re-used, as with the builders' luge and the guard at the shore. Decisions on the re-use of the wood from the plague huts would have involved a delicate balancing of prudence and economy.

The 1674 guard-house was built 'upon the High Street quher it was in the tyme of the Englishes'. That earlier guard-house (also of deals) can have had a life of no more than eight years when, in October 1660, it was said to be 'ruinous and decayed'. In spite of its belated tarring, the 1674 guard-house managed only nine years of useful life before falling into similar decay. Only a hopeful assumption that demand for a guard-house would be short term could excuse a decision to erect a building of untreated deals, fully exposed to the Scots climate. If that hope had been well founded then most of the £434 spent on wood (56% of the total costs) could have been recovered, along with the fire grate and even some of the stones. In the event, this was not to be and, by the time the guard was tarred, after two or three years, rot was probably already established and could continue in spite of tarring. Even so, some wood was salvaged from both the 'Englishes' guard-house and the 1674 one.

The shore guard was secured by posts driven into the ground and the other luges may have been anchored in the same way. The stone and lime gable gave some stability to the main guard, which nonetheless needed extra support against strong winds. The main guard may have been raised on a stone sill; and the decision to demolish the 'English' guard-house 'except two daill lenth of the west end' suggests that the deals were laid horizontally.

Wood was notoriously rare and expensive in 17th century Scotland and the climate presented a severe challenge to exposed soft woods. Nonetheless, in specific circumstances, buildings of deals had a more important role than their neglect in the literature hitherto would suggest. Hingin' lums have not previously been reported

before 1746 and the present report adds support to Fenton's suggestion that their origins may lie in the towns of the central belt.¹⁷ There are several other Stirling records strongly suggestive of hingin' lums, but without sufficient detail for certainty. The use of deals to build the lum is particularly interesting as Fenton suggests that this is a late development, replacing wattle and clay or cow-dung in rural situations.¹⁸ Again, in this early instance, we already see the association between the lum, the fire basket and coal burning, which Fenton associates with the later spread of hingin' lums into the countryside. Certainly, coal burning and iron firebaskets such as that used in the guard, were common in 17th century Stirling.

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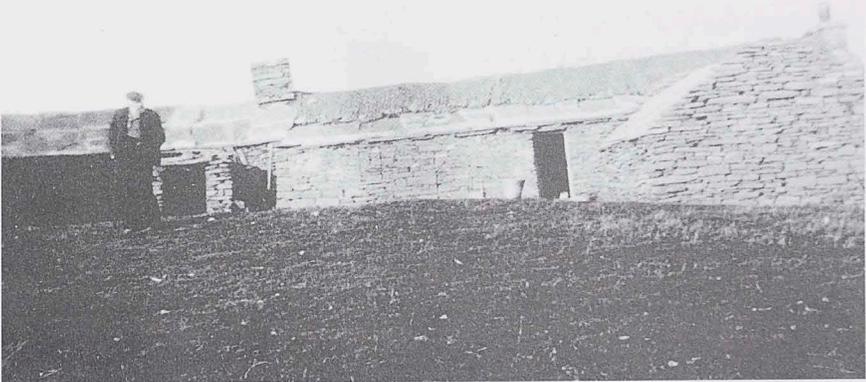
THE FARM OF GOWRIE, PAPA WESTRAY, ORKNEY

Jocelyn Rendall

Gowrie is a small farm on Papa Westray in the north of Orkney (HY 497537), built and added to by three generations of the Harcus family between the 1820s and the beginning of this century. A fourth generation farmed the land until the 1960s but made no significant alternations or additions to the buildings, many of which are well preserved, so Gowrie survives as a good example of a traditional North Isles farm.

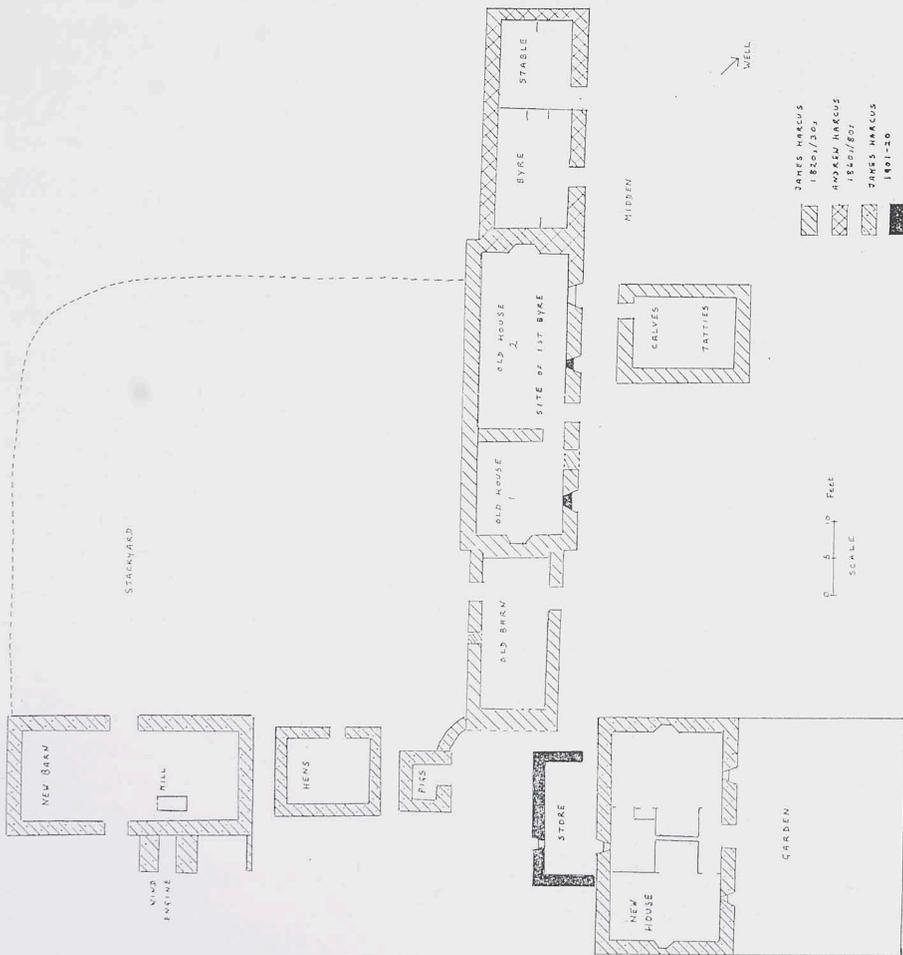
In the 19th century Papa Westray formed part of the estates of the Traills of Holland. George Traill and his son Thomas were enthusiastic 'improving lairds' who encouraged their tenants to bring waste ground into cultivation, break in new holdings and enclose these with dykes. James Harcus built the first farm at Gowrie about 1823 and it appears on an estate plan of 1844 with 19 acres of land.

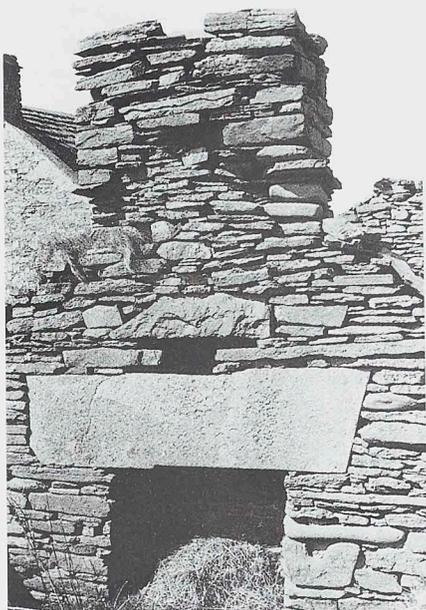
He built barn, dwelling-house and byre as a single block, with another small building at right angles to it, and most of this survives today. The original byre has been rebuilt as a second dwelling-house, but analogy with contemporary Orkney farms suggest that the first house and byre were built on the longhouse plan, with family and animals sharing the same door.¹ There are signs that there was once a corn-drying kiln



The Old House of Gowrie in the 1920s, the upper part of the roof thatched with straw simmons lashed to stones. Jimmy Hume is standing in front of the 'barn close'; he lived in the east end of the house until his death in 1935.

GOWRIE, PAPOA WESTRAY





The single room house is dominated by the massive 6.5 foot breast-stane of the fire-place which almost fills the gable wall.

against the west gable of the barn, though this has been demolished.

The population of the island reached its maximum at the 1861 census (392) and, despite some emigration, land hunger was acute. Every small farm supported at least two, usually three generations and virtually all the houses were extended at this time to provide a room for the son's family.

The report of the Crofters' Commission hearings in 1888 gives a sketch of Gowrie in the second generation. 'Andrew Marcus, Gowrie, had 12 acres arable, and 5 outrun. He had 2 cows, 1 one-year-old, 2 calves, 2 horses and 2 lambs. His rent was £11, and his arrears £9 9s 7d. He had occupied the place 32 years himself, and his father 33 years before that. He had built byre, stable and out-house, and enlarged the dwelling-house.'²

The 1901 OS map shows that Andrew's alterations had simply lengthened the original linear plan. The byre has been

rebuilt as a second one-room house, partitioned from the first by a stone cross-wall, and the new byre and stable extend beyond it running down the eastward slope of the land towards the sea. Their position utilises not only the slope for drainage but an outcrop of rock slabs which form a natural flat midden floor outside the byre. Inside one sees a characteristic re-use of existing materials: the three large flagstones forming the partition between byre and stable are supported by the spar from a boat, and above then an old sail provides more draught-proofing for the horses!

When Andrew's son James married he and his wife were still sharing the cramped space of the old house with an uncomfortable number of relations, but by 1903 they had moved into the 'New House of Gowrie' with their first child. The new house with its stone slate roof and walled kailyard stands conspicuously detached from the farm buildings on slightly higher ground: a clear statement of rising social status that probably reflects the improvement in security and prosperity conferred by the crofting legislation following the Crofters Holdings Act 1886. The interior has survived unaltered: but and ben divided from each other and from the tiny closet at the back only by the high walls of the two back-to-back box beds.

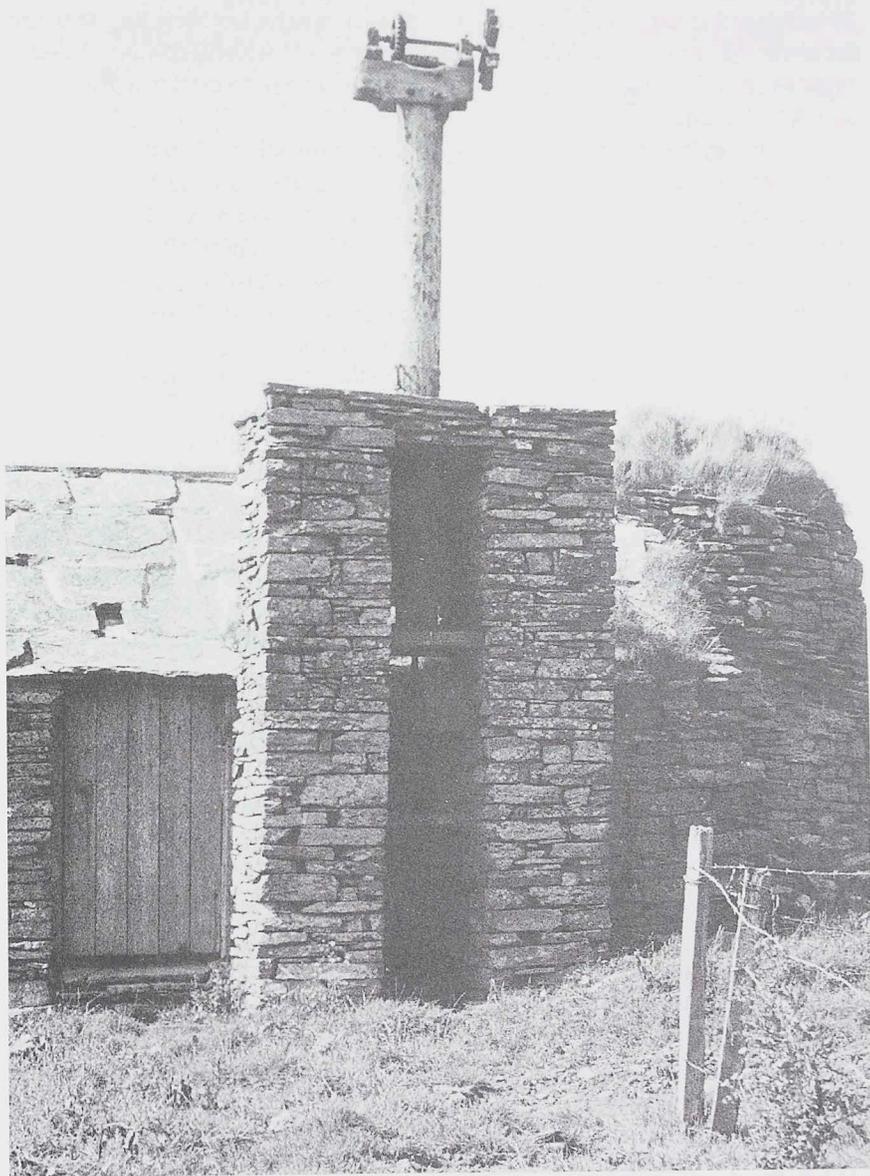
The west end of the old house became a storeroom though the east end was lived in by James' sister and her family until 1935. A photograph taken about 60 years ago shows the house with the upper half of the flagstone roof thatched with straw simmons. Photographs show that at the time houses on Papay were commonly roofed in this way, (cf Paul and Alison Newman's discussion of Orkney roofs³), though no traces of thatch survive now. Tommy Mackay, grandson of James Harcus, can remember the last time that the roof was re-thatched in the early 1930s.

The flagstones on Orkney roofs are often massive; on some of these buildings the whole pitch of the roof is covered with a single slab. The weight is supported by the gable walls, the couples, and by tekels, a layer of small flags laid horizontally on the wallhead which also serve to throw the rainwater off the walls. The joints between the main flags are sealed with flagstone overseamers, and the care taken with the shaping of these on the later roofs suggests an increasing interest in appearance as well as practicality.



The flagstone roof of the byre with overseamers.

Early in the 20th century James Harcus also extended the farm with two substantial new buildings to the north: a stone hen house (rents were traditionally paid partly in poultry in Orkney and egg production was the mainstay of the small farm economy until the gales of 1952 blew most of the henhouses and their occupants into the sea), and a new barn. Like the old barn it has opposing doors to create a through-



Wind-engine at Sangar, Westray. One of the best preserved examples surviving in the North Isles.

draught for winnowing, but it houses an important innovation: a sail-driven 'windy-gear mill'. The threshing mill survives intact in the barn: a small wooden drum only 20 inches in diameter and 20 inches long with iron teeth for knocking the grain from the straw. An iron shaft connects it through the barn wall with the (no longer extant) 'windy-gear' mechanism housed between the two square stone piers which also gave access to the sails .

Most of the small farms on Papay threshed with wind power until the 1930s but it seems to have been a far from easy operation. Because the barns had little storage space it was necessary to thresh as often as twice a week throughout the winter. If there was not enough wind the mill had to be arduously turned by hand, if there was too much it was a hazardous task to tie on the (4 or 6) sails which had to be individually lashed to the sail arms. Graham Douglas and Miles Oglethorpe mention Tommy Mackay of Maeback showing scars on his hands caused by catching them in the gears of the wind-engine as a child.⁴ According to another Papay source, it was the task of the farmer's wife to stand inside the barn holding the brake on the mill, while the man stood on the piers outside lashing on the sails. In theory, he gave a shout when he was ready and leapt to safety before the brake was released, but apparently there were not infrequent accidents when flailing sails knocked unwary victims to the ground.

It is understandable that, when the paraffin engine was introduced to the island in the 1930s, it was adopted on almost every farm with alacrity. It must have made a considerable contribution to marital harmony. Only one, very poor, farm was still threshing with a wind engine into the 1940s.

Acknowledgements

With thanks to Margaret Crawford (great-grand-niece of James Harcus), the owner of Gowrie, and to informants Tommy Mackay and John Rendall.

References

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HOUSING IN COTTON FACTORY AND IRON-WORKS VILLAGES OF THE LATE 18TH AND THE 19TH CENTURIES

Munro Dunn

Background

'From about 1760 onward...Lowland Scotland...developed rapidly, and in certain industries, such as cotton spinning and iron smelting, assumed an importance out of proportion to its size.'¹

The siting of cotton spinning mills was dependent on the availability of water power. Since this was widely distributed, many mills could be established in the vicinity of existing settlements, but some cotton-masters sought greenfield sites. The siting of pig-iron foundries was heavily dependent upon the ready availability of coal and ironstone, and as a result greenfield sites away from existing settlements were general. To draw labour to these new sites it was necessary to house it, especially since a significant proportion of it came from quite far afield, the Highland and Islands being a major source, and, later on, Ireland. Thus a string of factory villages sprung up. This article looks at the housing provision in ten of these: New Lanark, Blantyre, Deanston, Stanley and Catrine from the cotton sector, Wilsontown, Shotts, Muirkirk, Lugar and Waterside from iron.

The Scottish cotton industry started in 1778 and mushroomed rapidly. The mills at New Lanarks, Blantyre, Deanston and Stanley all started up in 1785 and those at Catrine followed two years later. New Lanark was built by the partnership of David Dale and Richard Arkwright, the latter the prime mover of the industrialisation of cotton spinning through his invention of a water-powered spinning machine. Dale was at one time sole owner or a partner at New Lanark, Blantyre, Catrine and Stanley. Arkwright was involved in the start-ups at New Lanark, Blantyre and Stanley as a partner, and at Deanston in an advisory capacity.

The founding partners at Deanston were the landowning family the Buchanans of Carseton. Archibald Buchanan became the resident partner at Catrine when James Finlay bought that Ayrshire mill in 1801. James Buchanan of the same family was a partner and subsequently sole partner at Stanley from 1824 to 1845. James Finlay went on to buy Deanston in 1808, and the company which continues to bear his name retained ownership of Catrine and Deanston through the remainder of their lives well into the present century.

Apart from the Buchanans, the landowning interest in the early days of the

cotton mills under review was most obvious at Catrine, where Sir Claud Alexander's influence was as strong as that of his partner, Dale. And while the Duke of Atholl was never a partner at Stanley, its founding owed a lot to his desire to improve an undeveloped area on the fringe of his estates, and he made an initial payment of £2,000 for housing (on which he was paid interest) and fully exercised his right to control the layout of the village and the style of the houses.

An improving and philanthropic strain which motivated several of those mentioned above extended most famously to Robert Owen, Dale's son-in-law, who took over New Lanark in 1799. Others who came into this category were Benjamin Flounders, a Yorkshire Quaker, who owned Deanston from 1793 to 1805, and Jeremy Bentham and Robert Gibbs who, with several Quakers, were Owen's partners at New Lanark from 1814.

The modern factory-scale iron industry in Scotland began at Carron in 1759 but spread much more slowly than cotton. As with cotton, only a few entrepreneurs were in control of many of the developments, and as time progressed control centralised still further. However, there was a greater spread of joint stock companies quite early on, with partners keen to spread their risks over a number of activities but taking no active part in control. Local landowners played a less prominent role.

Of the five iron-works on which the study concentrates only the first, Wilsontown (1779) owed its origins to local enterprise, the Wilsons being a family of small landowners one of whom had already ventured into coal extraction. Both Muirkirk, opening in 1789, and Shotts in 1802 were founded by consortia of largely Glasgow-based business men and forgemasters, the latter with an eye to securing their own sources of pig-iron. At Muirkirk, however, a local landowner, Commodore Keith Stewart, took full advantage of his ownership of the mineral rights and a financial stake which he took in the company to influence its activities until his death in 1795.

After a closure of nine years Wilsontown was re-opened by Dixons of Calder and Govan Ironworks in 1821. Wilsons of Dundryan and Summerlee (unconnected with Wilsontown) took over Muirkirk in 1843. Wilsons also joined with Dunlops of Clyde Ironworks to open Lugar in 1846. Dunlops dropped out of that enterprise in 1850, and it was taken over by Bairds of Gartsherrie, who already owned three other Ayrshire ironworks, in 1856. Bairds also took over Muirkirk in the same year.

Houldsworths, a family whose interests had originally been in cotton spinning, and who had opened Coltness in 1837, expanded to Waterside in 1848.

Thus the iron industry quite quickly became concentrated in the hands of a few family dynasties and their successor companies (with Merry and Cunningham of Carnbroe standing alongside those already mentioned).

Extent of housing provision

In a situation in which all ten of the enterprises under discussion sought to attract most of their workforce from other places, provision of housing, usually let housing at low rents, was one of the greatest incentives that could be provided. At the same time some industrialists in both sectors saw advantage to the business in having the workforce in tied housing. It suited them to keep the workforce physically together and close to the works, to dictate conditions, and to maintain order. The Blantyre works and settlement were capable of being completely isolated within their entrance gates.

In some cases the location of the works was such that there was no alternative to erecting a village from scratch. But even where there was already a significant settlement nearby, as at Muirkirk, Shotts and Blantyre, advantage was not taken of the opportunity to integrate the new housing into it and allow the sharing of common facilities. The exception was Deanston for whose workers in the early years the Buchanans chose to repair and rebuild the many ruinous houses in the nearby village of Doune.²

The number of houses built by the companies in each location is not always clearly documented nor can it always be deduced from the first Ordnance Survey maps since many were of more than one storey and the divisions between individual houses are not always shown. It is usually possible, however, to make an estimate.

There is clear evidence that by 1808 the Wilsontown Iron Company had erected about 450 houses³ although a proportion of these must have housed workers in ancillary mining activities. There are also apparently reliable counts of 267 for Lugar⁴ (after the re-development of the 1860s was complete) and 237 for Waterside.⁵ These certainly did not cover ancillary mining. The evidence for Shotts and Muirkirk is not clear but it can be deduced that there must have been around 200 company houses in the iron-works settlements in each case.

New Lanark may have been the largest of the cotton villages with its tenements capable of housing 400 families before renovation reduced that number. Blantyre mills may have provided about 200 houses in tenements and lower rise housing.

At Deanston a local landowner built a block of 48 houses beside the mills in the 1790s⁶ to supplement the Buchanans' original provision at Doune. This was pulled down by 1820 when the second stage of Finlay's development to house over 200 families at Deanston was complete.⁷ The cotton company, with the Duke of Atholl's financial assistance, quickly housed about 100 families at Stanley.⁸ Over the next few decades the housing stock there must have more than trebled but it is uncertain to what extent the additions were financed by the company and to what extent land was feued privately to mill-workers and others. Feuing was also practised

at Catrine where the company appear to have owned no more than 118 houses.⁹

Stanley and Catrine were different from the other villages not just because some of the houses were built privately on feued land but also because deliberate provision was made to attract a variety of other occupations and so have an integrated village economy. Thus in 1793 at Catrine, aside from those working in the mills, there were 3 blacksmiths, 6 carpenters, 7 masons, 7 tailors, 6 shoemakers, 3 brewers and 91 weavers apart from a variety of retailers and others.¹⁰

Housing location and layout

Non-industrial planned villages of the period were generally set out in more or less ordered layouts with clear focal points, and this may well be regarded as the ideal. Only Stanley and Catrine conform to that sort of pattern. With much of the housing there being erected privately it was necessary to draw up an overall plan initially and ensure that subsequent developments conformed.

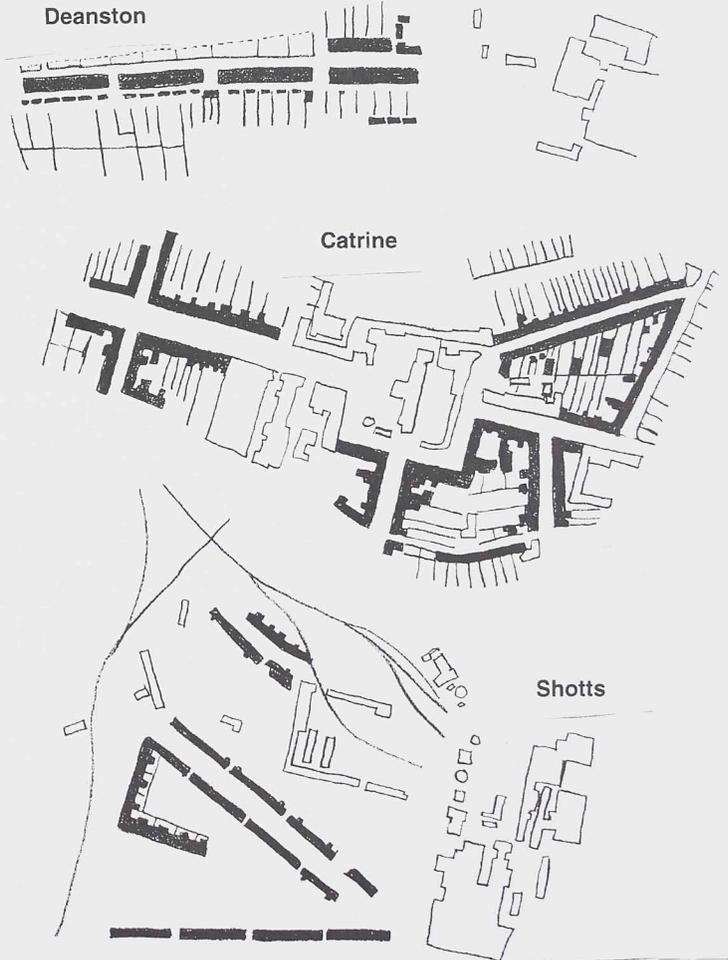
Deanston and New Lanark were necessarily positioned between river and steeply rising ground and this dictated a linear pattern. Transport considerations (and possibly to some extent shelter) resulted in Lugar and Waterside being established on similarly constrained sites. Although these 4 villages were essentially linear, parallel placement of rows to give a more compact settlement was adopted as far as possible. Where the site was less constraining the opportunity was taken to arrange at least some of the housing in clusters, square formation at Muirkirk and Blantyre, triangular at Shotts. In similar circumstances the placement at Wilsontown appears somewhat haphazard.

The pit villages ancillary to iron-works appear to have been set out with little concession to amenity. They were often in high and exposed locations, of which the most extreme was Benwhat, part of the Waterside complex, on an open plateau at 1050 feet above sea-level, yet little attempt was made to minimise exposure or secure good drainage. The elements of which these villages consisted were generally nothing more sophisticated than long straight terraces. At Common near Lugar there was a row 96 houses long.¹¹

The location of housing so close to the noise, fumes and dirt of some of the works seems difficult to justify when viewed from the perspective of the late 20th century but possibly conformed with the norm of the time. The resulting health problems were not fully appreciated, and minimising walk-to-work distances may have had attractions to the workers involved especially over the ill-made-up roads of iron-works sites. The more linear sites usually imposed a certain advantageous separation at, for example, Lugar, Waterside and Deanston, although at New Lanark the housing was set parallel with the mills. There was a clear physical separation of housing from works at both Stanley and Blantyre, and some of the housing at

Muirkirk was fully a quarter of a mile from the works. At Shotts and Wilsontown much of the housing seems to have been literally in the shadow of the works. One also cannot help harbouring reservations about having Catrine works set in the square in the middle of the village, whatever the orderliness of the arrangement.

Ordered layout was not, of course, always to be welcomed. Some Ayrshire iron-works not under consideration here, for example Ardeer, Glengarnock and Kilwinning, had some of their housing in squares but very close to the works and with ponds of cooling water in the middle.¹²



Sketches of housing layout (shaded) based on Ordnance Survey, 1st edition (1:2,500).

Size and construction

Except for small numbers of supervisors' houses the houses at company villages were set out in terraces. In both sectors one-roomed and two-roomed houses were common, there often also being a small scullery at the rear. The later the development the more frequently were two-roomed houses built. Single rooms were, for example, the norm in the first phase at Lugar, but Bairds provided two rooms in the second phase. At various sites from New Lanark to some of the mining villages what were built as one-roomed houses were combined at a later stage to give two rooms. The rooms in question were not large. At Blantyre, for example, those in the houses which survive were 14 feet by 10 feet, and at some other sites they were smaller.

Two-storeyed terraces were common at the cotton villages. At Deanston most terraces had two floors and an attic. Three-storey tenements were found at Blantyre, and 3- and 4-storey at New Lanark. Single-storey building was most common in the iron villages and inevitable in the pit villages, but some terraces at Muirkirk and perhaps a small part of Shotts were two-storeyed. Two-storeyed terraces did not consist of two-storey houses. A street door gave way to four houses, two on each floor. Sometimes the upper floor was reached by an outside stair.

Stone, generally sandstone, was the usual building material in both iron and cotton villages, but the later the development the greater the chance of brick being used. In the earlier years at Stanley some of the housing was of brick (as were the mills extensively) and some of stone, the only parts of the former which have survived now having been rendered. In the 1820s the Buchanan partnership added a long two-storey brick block.¹³ The first development at Lugar was of sandstone, but some of the second was of brick.¹⁴ The O.S.A. notes that at Wilsonstown, the earliest started of the ten settlements, there was a supply of good quality building stone and fire-clay to support a small brick mill. Donnachie and Butt state that all the earlier construction there was of stone,¹⁵ but from the evidence of remaining wall-footings brick was subsequently used. Deanston, New Lanark and Catrine were largely stone-built, and the photographic evidence shows stone at Shotts and Waterside. The evidence is poorest for Muirkirk and Blantyre but what survives is of stone. On the other hand the ancillary mining villages which survived longest, particularly those associated with Lugar and Waterside, being often of a later date, were frequently of brick.¹⁶

Even where stone was favoured for the main structure, however, chimney heads were frequently of brick (assuming that re-furbishment has not substituted brick for stone). Outhouses were also more likely to be of brick, and both Stanley and Deanston have examples of outside stairs to the first floor level being largely of brick construction.

From the surviving evidence on the ground and photographic evidence rubble appears to have been the preponderant form of stone-work, but often with ashlar

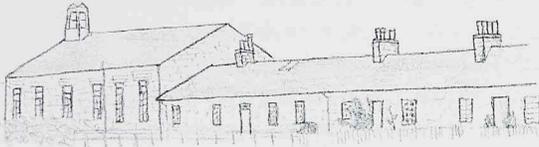
blocks for lintels, sills and rybats. Hume describes the building at Catrine as being well in character with the vernacular building of the area.¹⁷ Cottages with more finely wrought stonework survive at Muirkirk. These were, however, supervisors' houses beside the Institute and probably from much later in the 19th century. These same Muirkirk cottages also show an unusual degree of decoration. Other examples of decorative features, generally Georgian in character, survive at both Catrine and Stanley but the houses in question may have been privately owned. The turret staircases on some blocks at Blantyre are an attractive continuation of an earlier Scottish tradition but were no doubt adopted for purely practical reasons.

Roofing was generally of slate. However, some of the original one-storey rows in Catrine were thatched,¹⁸ and there is evidence of some thatch surviving at Shotts until at least the 1850s. The hierarchy which rated iron-working higher than mining is apparent at Muirkirk where the superior housing was allocated to iron workers and was slated ('on top of foreign timber') whereas the miners' housing was initially generally thatched.¹⁹ Elsewhere, and generally later, even the miners' rows were mostly slated, but some were roofed with tar-cloth.²⁰ The nature of the roof of one of the rows at Shotts is reflected in the name 'Flat Row', but the material used is not recorded.

Amenities and condition

Well-equipped houses had wash-houses, dry closets, ash-pits and coal-houses, frequently set together in a block, better some distance behind the town but sometimes attached to it. The facilities might well have had to be shared, sometimes by several families. That there is little or no comment on the provision of such facilities at Stanley, Deanston and Catrine may be thought to indicate that they were well up to the standard of the time. This seems to be confirmed by cartographic evidence. One wonders, however, how well-provided the tenement blocks at New Lanark and Catrine were. Ash-pits in the spiral turret stairs at Blantyre gave rise to adverse comment, but the O.S.A. refers to the Monteith company keeping the houses (and mills) as clean as possible. There was a general wash-house at Blantyre but in the early years the only source of water for some of the houses was a well some distances away near the gate. On taking over at New Lanark, Owen found dirty streets and dung hills and rubbish outside every door,²¹ and one of his main efforts was to improve his workers' physical conditions believing that this would in turn improve their moral character.

The cartographic evidence also suggest that the provision may have been acceptable at Lugar and Waterside but was very poor at Shotts. In the poorest houses at Shotts and in some of the mining rows generally no amenity blocks are apparent at all. Evidence to the Royal Commission on Industrial Housing compiled just before



Lugar



Deanston



Stanley



Catrine

Examples of surviving housing.

the First World War confirms that at Burnfoothill (Waterside), with a population of over 1,000, no closets were provided, while on other sites, including some of the iron-works outwith the present 5, they were unusable.²²

The same evidence highlights other major shortcomings in miners' rows and in some of the other iron villages; earth walkways, inadequate drainage, overflowing cess-pits and unusable closets, windows which could not be opened, part-earthen floors, and lack of scavenging services.

The better villages were marked by the provision of gardens and drying greens. At Catrine, Alexander set aside up to 25 acres and had it cultivated at his own expense to allow the workers to grow potatoes and benefit from the outdoor exercise entailed. Those who wanted to keep cows were given grass lets.²³ Later the provision of gardens was general at Catrine as it was at Deanston, and many houses at Stanley also had gardens. There is no evidence of gardens at New Lanark, the particularly constricted site of that settlement probably precluding them. At the iron-works villages, gardens were generally only attached to the small number of superior properties occupied by supervisory staff, but one row of 30 houses at Waterside had gardens and drying greens up to as large as 3,000 sq. ft., and most houses at Lugar had gardens. Gardens were in general missing from mining villages but were not unknown. Some were provided, for example, at Skares Row (Bairds, Lugar) and Lethanhill (Waterside).²⁴

In many of the ten villages the condition in which the properties were maintained appears to have been quite satisfactory with the owners giving them adequate attention and trying to insist on standards of cleanliness from their tenants. As evidence of this the comparative good health of the workforce, especially taking account of the confined conditions in which they had to work, is noted in the Statistical Accounts for Deanston, New Lanark (under Owen), Blantyre, Catrine and Lugar. However, Owen had found much of the housing in a state of disrepair when he took over at New Lanark.

The state of the housing was inevitably partly dependent on the attitude of its occupants. While the (somewhat sycophantic) minister of Muirkirk, contributing to the O.S.A. referred to the iron-workers' houses there being 'built to exceed in elegance those of the older village', Butt and Hume record that they soon became industrial slums, their occupants being regarded as outstanding in Ayrshire for their insanitary habits.²⁵ Later they regained their high standard. Lugar, coming half a century after Muirkirk, was widely regarded as a model village, and Steven was able to endorse the maintenance of this standard at the end of the century.²⁶

Evidence is somewhat lacking from the other sites under review. The wide endorsement of the condition in which the company housing was kept did not extend, however, to some of the other Ayrshire iron-works settlements or to the great majority of the miners' rows where, apart from the dirty and insanitary conditions referred to

above, damp and deterioration were all too common. Yet in some of the mining villages the inhabitants were regarded as 'being of superior appearance and giving evidence of being able to appreciate better conditions'.²⁷

Educational, cultural and social provision

The companies' problems for their workforce went some way beyond housing, particularly into the fields of education and religion but also extending to other cultural and recreational facilities and to the provision of shops. The isolation of many of the communities, and the large addition to the population of the district which the arrival of other works entailed, made these provisions something of a necessity, but philanthropic motives were also commonly at play.

More often than not educational facilities seem to have taken precedence over religious, although that is not to say that educational facilities were necessarily available from the beginning of an operation. Improvised facilities often preceded a custom-built school or church, and the two sometimes had to share accommodation.

At Wilsontown, a school which also served as a church was provided at quite an early stage, and within 10 years the company also provided chapels at both Wilsontown itself and the mining village of Climpy and were paying the salary of a minister for both.²⁸ At Shotts the company erected an 'adventure' school (the teacher to be supported solely by pupils' fees) and provided a school-house, but no record of religious provision has been found.²⁹ Perhaps that came from other nearby villages. At Muirkirk, the company was ready to pay for both school and church extension, but was frustrated by heritors' disputes and delays and allowed only to provide a new manse in 1801.³⁰ A separate company school came much later. In the early years at Lugar, education and religion were catered for in a non-specialised building. However, after Bairds took over, a new school 'far in advance of its time' was erected, and after the iron-works were moved uphill a foundry was converted to a church.³¹ An adventure school was provided at Waterside very quickly, but a church had to wait the second phase of the development in the late 1850s.³²

Isolated mining villages were eventually equipped with schools, school-houses and mission churches although at Lethanhill and Burnfoothill, for example, on the plateau 3 miles from Waterside, school children and worshippers had to walk to Waterside for nearly 20 years.³³

The O.S.A. suggests that originally the care of young persons at Deanston was not up to the standard of undertakings in which Dale had a hand. It may have been over-critical. Under Finlays, schooling was provided for 5- to 9-year olds; 9 to 12 year olds also got 3 hours schooling daily (as was to become a general requirement), and 13- to 15-year olds got evening school 4 nights a week.³⁴ No

mention is made of a church at Deanston; presumably that at Doune served.

At Stanley there was originally a private adventure school supported solely by fees.³⁵ About 1805, after Dale and Owen became involved, a company school was established. The company also paid a preacher to do duty in the schoolhouse on Sundays. No separate chapel-of-ease was provided until about 1830.³⁶

Education was well provided for from the beginning at New Lanark with the younger children attending day school and the older evening school. Dale paid for 3 day teachers and 7 evening assistants. Owen continued the provision, imposing, however, his own unorthodox ideas on how schooling should be conducted. The N.S.A. laments that there was no separate church in New Lanark.

At Blantyre a teacher was provided from the beginning to teach after work in a company building. In 1828 Monteiths paid for a chapel and half a minister's stipend. This building then served as the school.³⁷

At Catrine, Alexander provided education and religion for children from the beginning. Fees were charged for the day school, but teaching was provided free for the older children in the evenings after work. Adult education was also catered for. The teacher was helped by evening assistants who were provided with factory jobs by day. Alexander contributed to the cost of a chapel-at-ease but not to a manse.³⁸

Shops were provided at all 5 iron-works sites, but took 20 years to appear at Lethanhill and Burnfoothill.³⁹ Those at Shotts and Muirkirk at least started life as truck shops. The shop at Muirkirk held a monopoly position in the iron-works village to the end, the company prohibited any others coming in. The Lugar company owned various shops but they operated on the co-operative principle, paying dividends to customers.

Stanley and Catrine had shops among the privately run services which were established in these villages from the beginning, and the operation of several competing privately-owned shops was a feature also of Blantyre, unusually for a village built exclusively to house company workers. Owen converted Dale's company shop into a co-operative which is said to have had the effect of bringing prices down by 15 per cent.⁴⁰ The workers at Deanston may have shopped in Doune, there being no reference to separate shops in the company village.

Inns confined to the sale of beer were a regular feature, and at Catrine Alexander built a brewery to discourage the circulation of whisky. Other social facilities, however, seem to have been few until the 1870s. Thereafter two company-supported Institutes were erected at Muirkirk with meeting and reading rooms. The Lugar Institute, funded by a partner in the company, did not appear until the early 1890s, but made up for its late arrival by adding billiards, skittles, a heated swimming pool and two 'summer-ice boards' to the usual more educational repertoire of such foundations.⁴¹ Before then, however, athletics, football, amateur dramatics and bands were regular features of iron and mining villages alike, and must have been

dependent to some extent on facilities provided by the companies. Sources are generally silent about social facilities at the cotton villages but they may be assumed to have developed, possibly without company involvement, at such as Catrine, Deanston and Stanley.

Inter-industry comparison

Even leaving aside the iron-industry's satellite mining settlements, it is clear that housing conditions tended to be better in the cotton sector than in the iron sector although conditions in each were far from uniform. There are a number of possible reasons for this although these can only be inferred indirectly. There is little or no primary documentation available which exposes the motivation of the entrepreneurs. Company records are chiefly concerned with the technical and economic aspects of operations. Likewise the views of the workforces and their families are hardly documented. The main sources of contemporary commentary by third parties are the Old and New Statistical Accounts, and some of the authors are quite subjective when not simply purveying facts.

There was a tendency for provision to be better where the local landowner was closely involved. Arguably the best provision of housing was in Catrine and Stanley where almost from the beginning there was a mix of company and private housing which nevertheless had to conform to an initial overall plan and set of standards. There was a mixture of mill and other occupations there, and the landowner was one of the entrepreneurs (Sir Claud Alexander at Catrine), or had a close interest in the development and a financial stake in the housing (the Duke of Atholl at Stanley). The creation of Catrine and Stanley villages may be viewed as part of the movement which resulted in some 150 planned villages in Scotland between 1750 and 1850.⁴²

The Buchanans' solution of settling workers in restored properties in Doune may well have matched the provision at Catrine and Stanley.

In the iron sector, the influence of Commodore Stewart at Muirkirk appears to have been for the good.

Secondly, a strong philanthropic strain runs through the motivation of many of the early cotton entrepreneurs, and some of the much later successor companies, notably Jas. Finlay & Co. and the Gourock Ropework Co. (New Lanark) seem to have scored highly.

The iron industry, on the other had, moved more quickly into the hands of limited companies with a multiplicity of partners or share-owners with no direct involvement in the business.

The cotton villages were more numerous and the bulk of them were established over a short period of time. This may have given the more positive aspects

of housing provision a certain momentum. It may also have been difficult in the early iron industry to isolate housing conditions from the necessarily grim working conditions.

Finally, the much greater part played in the early cotton workforce by women and children may have induced a more enlightened approach to housing, and certainly made the provision of housing a more cost-effective process since each household could be expected to yield more workers than in iron.

To add all those factors together is certainly to overstate the differences between the cotton and iron sectors. Lugar has to be highly rated and Waterside was at least moderate (albeit that these were not developed until nearly the middle of the 19th century), while one cannot help harbouring reservations about the standard of some of the housing at Blantyre and New Lanark. On the other hand one cannot ignore the abject condition of the facilities provided at some of the North Ayrshire iron-works excluded from the body of this review. The iron industry also has to answer for the standard of housing at many of its satellite mining settlements.

Note

This is a condensed version of an Edinburgh University cultural studies project. The main sources are the Old and New Statistical Accounts, Ordnance Survey 1st Edition Maps, and Ordnance Survey 1st Edition Name Books. These and other sources were consulted with the assistance of the most helpful staff at the Royal Commission on the Ancient and Historical Monuments of Scotland Library, the National Library of Scotland Map Library, and Cumnock & Doon Valley District Council Libraries. An inexpert eye was cast over most sites.

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A WEAVER'S MUD-BUILT HOUSE OF THE EARLY 19TH CENTURY AT NAVITY, BLACK ISLE

David Alston

Cromarty Courthouse has recently received copies of a full set of the Cromarty News, a local news-sheet published weekly during part of 1891 and 1892. Among the articles is a three part account of *Two Notable Natives of Navity: Robert and Daniel Williamson* which includes detailed description of their three apartment mud-built 'hut' as it was before their deaths in the late 1840s. The brothers, known as 'Robie-Danie' and 'Danie-Robie', are referred to at one point as hermits and so may have been preserving a style of living dating from the late 18th century. The contributor, who is identified as 'E.' in the first part and 'F.B.' in the subsequent parts, is not known but as he had clearly been well acquainted with the brothers he must, at the time of writing, have been in his seventies.

The following are extracts from the article.

The brothers live in a small, mud-built, thatch-roofed hut of three apartments, occupying the centre of an 'acre of land' somewhat to the south of the turn of the road leading to the houses on the farm of Navity. The piece of land, surrounded on all sides by a dry-stone dyke, the brothers managed, without help, to cultivate. The situation of the hut was northward and southward, the entrance being to the east, one window looking to that direction, and two to the west. At the north end of the ground was a moat of primitive construction; the water in which, green and slimy and moving with frogs and their young, moistened the land under cultivation. A small bridge of rustic make spanned the moat. Crossing the bridge you came to what was known as the fruit garden This part of the ground was separated from the rest of the land by a stone dyke coped with turf to the depth of from six to eight inches... Passing the door of the hut to your right, and turning the corner to the south, you came upon a plot at the rear of their dwelling. This was the flower garden tastefully laid out, and where grew 'London pride', 'dusty millers', and sorrel wood, mint, thyme and such like old fashioned flowers. It was well kept and free of weeds. The remainder of the 'acre' was always under crop of the same description - potatoes, barley and oats. The brothers tilled the field with a primitive looking worn-out spade, the barrow being a wooden one with iron 'tynds', drawn by one or other of them. The manure was seaweed gathered on the shore, and brought from thence in a 'creel' of their own make on the back up the steep bracken braes in a zig-zag path, never deviated from; along with which they invariably carried in one of those short-necked black jars a supply of

water from St Bennet's Well, specially for quenching their thirst. For boiling the potatoes and greens sea water got from a hole scooped in a rock about three hundred yards to the south-west of the well (still to be seen) was used, in order, it is supposed, to save their supply of salt. For other domestic purposes water from the pools around the hut was got.... At the north end of the hut stood a large heap of brushwood, tree roots, and turf, the accumulated gatherings of years, seldom broken on, the firewood for daily use being gathered nightly from the neighbouring wood and moor.

The hermits' hut had three apartments, the southmost being at one time a weaving shop, but had become a sort of store or lumber-room for old chests, ancient dram-drinking glasses of crystal, empty bottles & c. The middle apartment was both sitting room and kitchen. Here the food was prepared and the table spread daily. The fireplace stood against a stone wall which supported the roof, the smoke finding its way towards the clouds through an opening immediately over the hearth.... The furniture of both sitting room and kitchen was a table and several chairs, with sundry hardware and other utensils. The apartment to the north was their only bed-room, and contained a four poster bed, a chest or two, and a couple of chairs.

... On week days as well as Sundays he ('Robie-Danie') donned a blue cloth jacket with brass buttons, a vest of the same texture, and linen trousers, all manufactured and made by themselves. His head covering had originally been a 'Glengarry', but long wear had considerably changed its appearance.

'Danie-Robie's' work-a-day suit was entirely linen, also their own make. Being the one who attended church... on that day he dressed in a coat of blue cloth of the swallow-tail make, with brass buttons; vest and trousers of the same cloth; his head topped with a silk 'beaver' much weathered and brown, worn sailor-like fashion.

...In their declining years the brothers took a fancy and kept a dog of the terrier species that it might worry or, at least, scare away the rats and other 'uncanny vermin' which invested (sic) the hut as well as the turk stack... They at the same time made pets of a bantam cock and mate, the former to crow and, as the brothers said, tell them of whenever friend or stranger from a distance was to pay them a visit, a belief still to be met with in some out-of-the-way country places. The loom end of the hut was occupied by the fowls.

...One day or night... the roof of the hut, long dilapidated, fell into the centre of the room... A staff of willing hands soon performed the work of restoration, and before night fall the hut was again in a habitable condition. Being a 'love darg', the workers were, before separating, invited into the middle apartment, there to partake of a dram and bread and cheese.

... All implements of husbandry required for the 'acre', such as wheel-barrows, harrows, pick and axe handles, were made by the brothers, their tools consisting of a large clasp-knife, a saw, and an axe - the latter used only to do the rougher kind of work. The wheels of the barrows were very primitive-looking affairs, made of several pieces of undressed wood clamped together, a hole being left in the centre for the wooden axle to work in.

... They knitted their own stockings, performed their washing and 'beetling', and made their shoes. These resembled somewhat the shoe of today, only they were made on the 'straight principle', not 'rights and lefts'. They thrashed and dressed their barley and oats, the neighbouring farmers taking it in turn to carting the grain to the mill, three miles distant, to be made into meal..

... Of books they had a goodly collection, such works as 'Boston's Fourfold State', 'Baxter's Call to the Unconverted', 'Howie's Scotch Worthies', 'Newton's Works', 'Traill's Select Writings', 'Flavel's Works', and 'Bunyan's Pilgrim's Progress' being well to the front. Latterly they came to patronise the book canvasser on his stated visits to Cromarty, and to take from him in parts, to be afterwards bound for them by a friend in Cromarty, such books, chiefly of a religious nature, as took their fancy.

... Not long after the brothers' death, the hut was used as a barracks, or bothy, by masons employed at the new steading for Navity farm, and afterwards the 'auld clay biggin' was thrown down, and now the ploughshare passes over where it stood.

RIBIGILL STEADING, TONGUE, SUTHERLAND

Graham J. Douglas

Like many others, I read the entry in the handbook of this site for the Group's 1985 conference based at Bettyhill.¹ The handbook's description leads one to believe the main steading with the covered sheep dipping shed dates from the early 19th century. Recent research, however, would suggest that the steading dates from the late 19th century.

As a graphic recorder of industrial buildings I was sent to the site to record the dipping shed. As part of the basic record for the site I obtained the O.S. (Ordnance Survey) 25 inch maps for 1874 and 1903 (Figures 1 and 2).

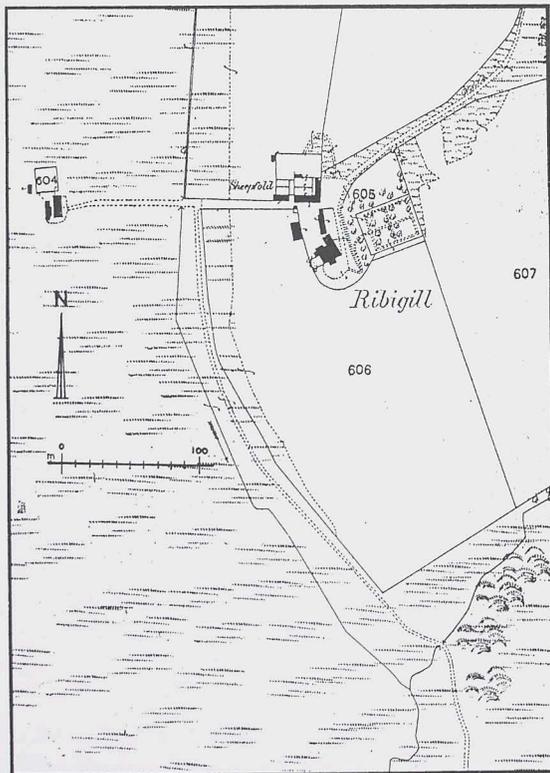


Figure 1: Ribigill 1874

These clearly show that the existing steading, located some 300m south of the house, did not exist in 1874. Furthermore the maps show that the house and its outbuildings were either extended, remodelled or even rebuilt between the dates of the 25 inch maps. Also clearly shown is the amount of land that was improved after 1874, due no doubt to the construction of the new steading. The date of the south steading is also confirmed by the building specification which is held at the estate office in Golspie and is dated June 1873. Figure 3 is a site plan of the south steading with details of the covered dipping shed.

References

1. Beaton, E., Caird, J.B., Durham, J. & Morrison, A. *Excursion Handbook: Bettyhill* (1985) Scottish Vernacular Buildings Working Group.

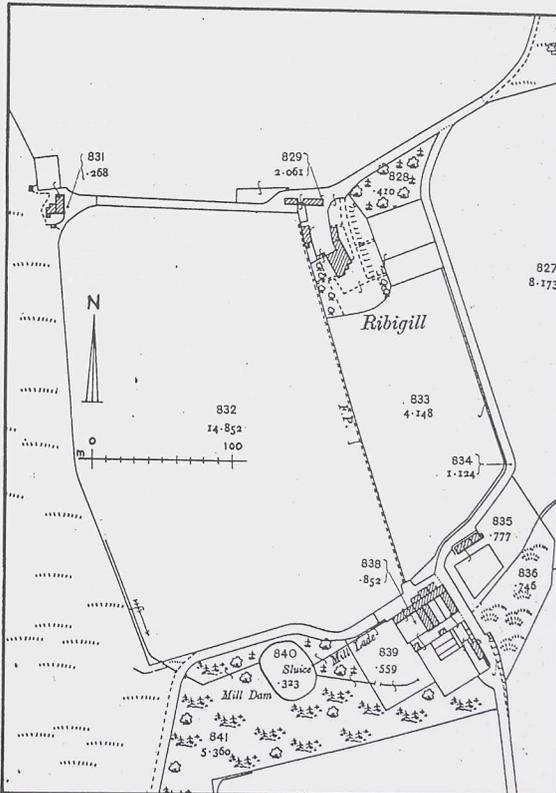
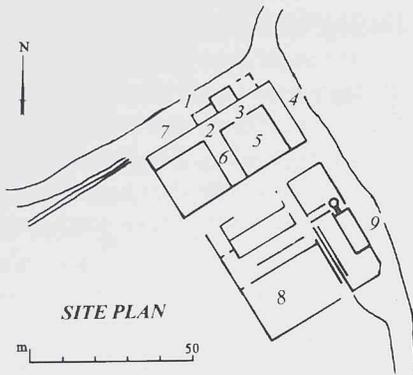
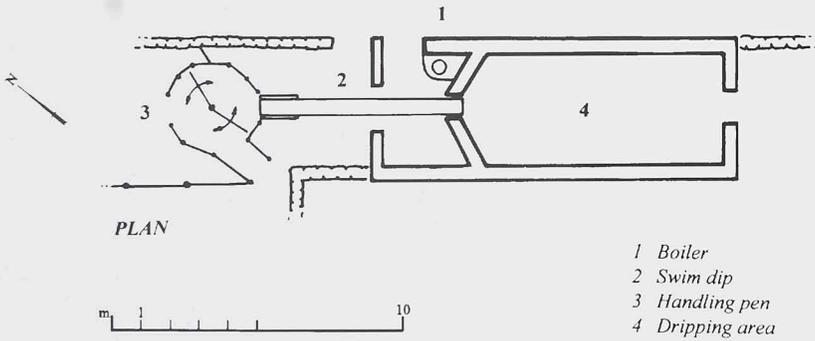


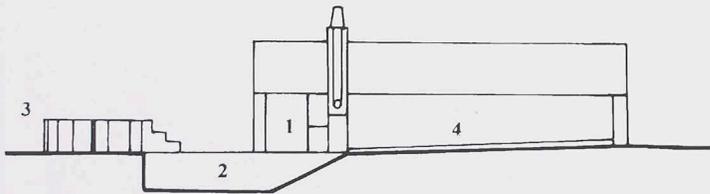
Figure 2: Ribigill 1903



- 1 Covered water wheel
- 2 Threshing barn
- 3 Stable
- 4 Cattle shed
- 5 Cattle court
- 6 Cattle shed with loft
- 7 Cart shed with granary
- 8 Sheep fold
- 9 Covered dipping shed
(see details below)



- 1 Boiler
- 2 Swim dip
- 3 Handling pen
- 4 Dripping area



Detail of item 9 - Covered dipping shed

Figure 3: Site plan of south steading

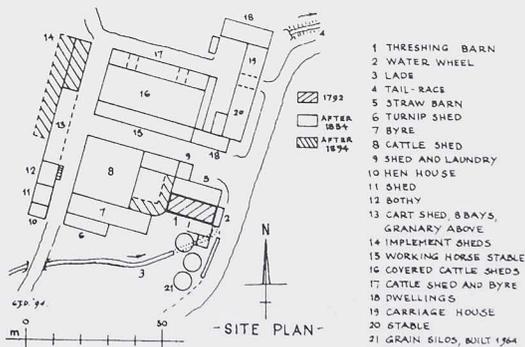
KILRIE FARM, KINGHORN, FIFE

Graham J. Douglas

In the Historic Farm Buildings Group Newsletter, No. 14, January 1992, a short extract by Robert Benton 'On farm buildings in general' *Communications to the Board of Agriculture*, Vol. 1, Second Edition, 1804, page 57, appeared. It concerned an article published in 1804 and described a water-powered threshing and grinding mill, built in 1792. The Newsletter reproduced a sectional elevation of the building, the machinery, and internal water wheel. The original article also contained 2 more elevation drawings and a ground plan, plus an itemised list of the principal features.

It was worth putting up with wintry conditions during a site visit in February 1994 because the main body of the 1792 building still exists. The OS 6-inch map of 1854 shows the 1792 layout. Soon after 1854, however, the building was re-modelled and a large steading added. The 1792 drying kiln and attached dwelling house on the N side of the threshing barn was demolished, a straw barn erected on the site and the original machinery along with the internal water wheel, were removed. A new water-powered threshing machine was fitted and the water wheel was located on the outside face of the E gable. It was housed in a lean-to extension.

In 1964 the building was gutted once again, but the water wheel was not removed, just disconnected by removing the driver shaft and its spur gear. A large grain dryer was fitted into the building, with a bin capacity of 125 tons. The equipment was made by Jack Olding, Perth, Scotland. By the early 1980s the steading was out of use, being replaced by a large portal framed building located some 700m to the west. Planning permission has been granted for the partial demolition and conversion of the steading to a house, or houses. The property has been owned since the early part of the 19th century by the Drysdale family. The OS name entry from 1854 shows the owner to be also Town Clerk of Kirkcaldy. In more recent times the Australian painter and writer Russel Drysdale is a descendent of the same family.



THREE EARLY CROFT HOUSES IN GAIRLOCH, WESTER ROSS

Harry Gordon Slade

Towards the end of 1987 Roy Wentworth - then Director of the Gairloch Heritage Museum - asked me to look at the ruins of a croft house - No. 25, South Erradale. Some little while later Elizabeth Beaton called my attention to two houses on the further side of Gairloch - No. 27, Big Sand and No. 11, Melvaig. Visits to these sites resulted in a talk given to the SVBWG Autumn Meeting in Inverness; this paper is an edited version of that talk.

All three houses are of interest because of their apparently early date, and because of the oral traditions which attach to two of them. Roy Wentworth's own memories from his early years, the recollections of John Mackenzie, the last of his family to live at South Erradale, and Roderick Mackenzie's taped account of the house at Melvaig flesh out the story in a way that no academic or archaeological record can.

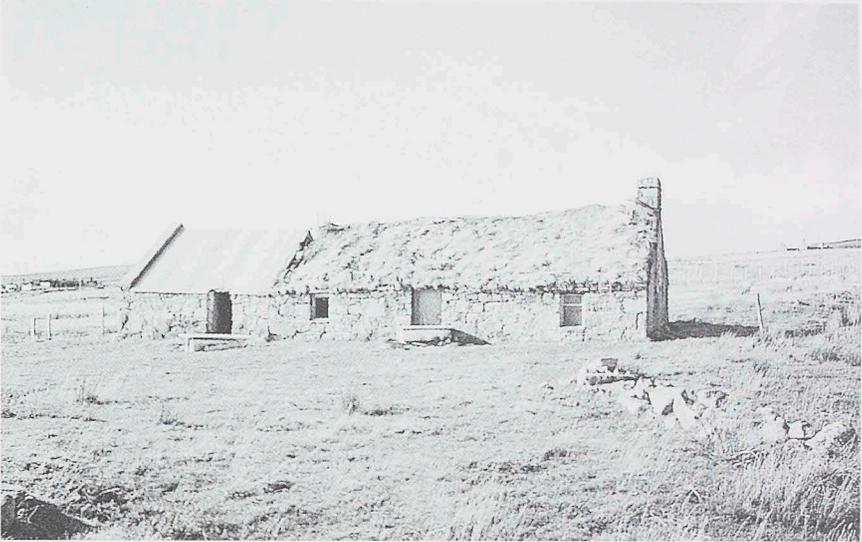
Some would describe all three houses as 'cruck buildings', and here I would enter a caveat. Cruckery is endemic amongst English vernacularists, and sporadic outbreaks of a deviant strain can be met with in France. Properly a 'cruck building' is one where the whole structural system is based on cruck frames. In some of the great English halls and barns this can be truly impressive, and in Scotland there are certainly some buildings which, in their own small way merit such a description. However a building where there is nothing more than a roof carried on cruck trusses, which themselves may be only one element among several, is no more a 'cruck building' than it is a 'stone building' or a 'purlin building' or a 'door and windows building'.

I have no intention of employing the Gaelic for any of the building terms, although Roy Wentworth has thoughtfully provided a word list for these (Appendix). In the first place I have even less Gaelic than most of my readers, so it would be pure affectation on my part. In the second place some of the terms may be peculiar to Gairloch, where taigh dubh can mean either a black house, or a bothy for the illegal distillation of whisky. I have no wish to provoke what would certainly be a lively and, possibly even, an informed discussion on their correctness.

No. 27 Big Sand (Mistress Peggy Newton)

This, the first house to be considered is a conventional white house (a term, I am told, not in use in Gairloch), with an entry and press-on closet between the room and the

closet, and a byre at the kitchen end. The house is thatched with end chimneys - that of the room being of stone, and that of the kitchen of timber and clay. The walls of the house are given a thin coat, or wash, of harl, but the stone of the byre walls is left exposed. The byre has been considerably rebuilt about the wall heads, and a concrete-capped gable has replaced the more usual hip-end. There was a doorway between the byre and the kitchen, but this has been built up.

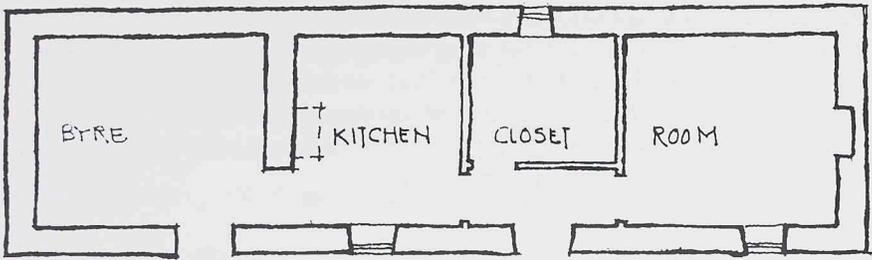


No 27 Big Sand

It was impossible to view the interior of the house satisfactorily. The kitchen and room had been ceiled, perhaps a hundred or more years ago, and had been lined and relined with wallpapers and newspapers countless times. These layers hung down, like curtains of live moss waving gently in the breeze. As far as it was possible to penetrate this jungle, which was not very far, it was clear that the trusses were crucks.

The crofts at Big Sand were laid out in the 1840s, and this house must have been built by 1843, since it is shown on Campbell Smith's survey plan, published in 1846. The apparent discrepancy between the dates is because, although the survey was made in 1843, it was not published until three years later.

The blocked doorway between the byre and the kitchen was a source of some irritation to both Roy Wentworth and myself, as we were convinced of having seen a reference to Dr John Mackenzie ordering that such doorways should be blocked,



Nº 27 BIG SAND

but neither of us could remember where.

In correspondence Christina Byam Shaw doubted whether orders or compulsion were used, Dr John preferring to urge the crofter to arrange their living quarters in a more civilised way. She suggests that with the abolition of run rig 'a good deal of pressure would have been exerted to make the crofters separate their living quarters from their byres'. The distinction between using, pressure and compulsion, when coming from the proprietor or his agent, is a nice one.

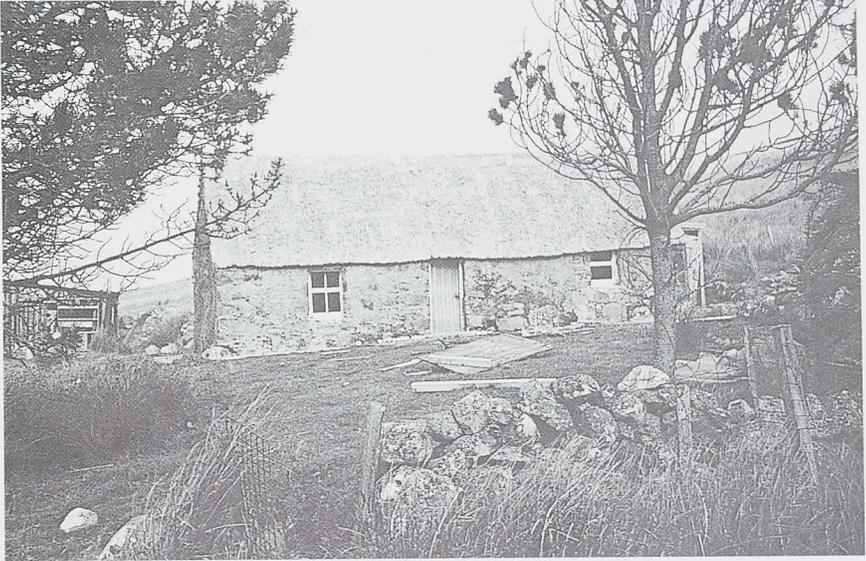
No. 11 Melvaig (Mistress Jenny Dixon)

This has all the appearance of a conventional two room-and-press house, but in this form it only dates from the 1950s. Originally, according to the recollections of Roderick Mackenzie, who was brought up there, it had a much more extended plan and, almost certainly, a far less spruced-up appearance. It has been repaired under the most respectable auspices, but somehow manages to look a little contrived.

Roderick Mackenzie recalls that,

his father would thatch the Black Houses once in four years with rushes. Some were thatched with heather. The rushes came in sheaves or stooks...In the house [No. 11 Melvaig] there was a kitchen, room and closet in which Roderick slept. There was a sort of loft [this seems to have been over only part of the house]. The entrance door was opposite the lobby door. The kitchen was on the left. Between the kitchen and

the press was only a curtain. They themselves put the plaster board partition in. There was a round spar in the room down a bit below the ceiling and cross tree. This was cut out because there was always banging of heads. He did not see this in other houses. There was a fireplace of hobs with a hanging chimney of wood. In the room there was a vent in the chimney in the thickness of the wall.

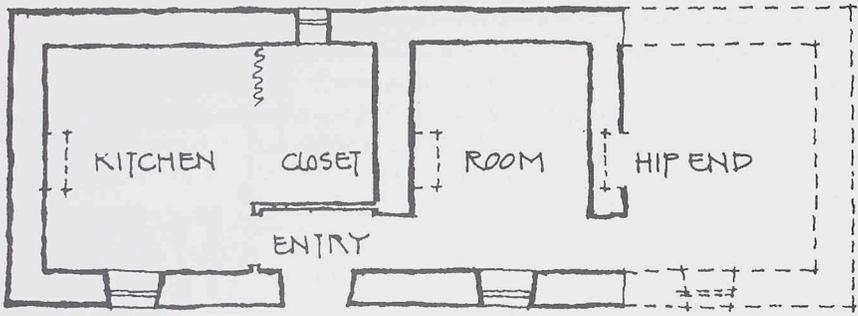


No 11 Melvaig

In a later passage Roderick clarifies the position of the chimneys and adds to his description of the house:

'In the partition wall between the closet and the room was a hanging chimney at that wall [the evidence for this survives still on that same wall, which is heavily sooted]. In the room in which Grandfather slept there was a vent in the partition between the two rooms. When they cut off the hip-end they closed the fire-place Grandfather had, and built a gable and opened a fireplace into the vent that was in the gable.

It is possible that there has been a drastic re-arrangement of this house at some time, and what is now the kitchen was once the byre. If, however, the plan described by Roderick Mackenzie is the original one then there is an approximation to the classical medieval plan of kitchen-service and screens - hall - chamber.



NO 11 MELVAIG

Internally the house has been interfered with, particularly the press, where plasterboard partitions have been introduced, but some useful evidence survives. The kitchen, as was customary, was lined with newspapers, whereas the room rated wallpaper; as already mentioned traces of an earlier hanging lum remain in the room, together with the sawn-off ends of the spar. The roof timbers seem to have been fixed with sea-weed.

Like the house at Big Sand, that at Melvaig dates from before the Campbell Smith survey of 1843. In the 1841 Estate Ledger it is recorded as a fire house and barn - that is a house with fireplaces and a detached barn. The building seems to have been 'improved' at least once before the 1950 alterations, and may incorporate remains of an even earlier structure.

No. 25 South Erradale

Although ruinous, this is the largest of the three houses under consideration, and has the remains of an extensive and well-developed set of outbuildings.

When he died in 1983 - the last of seven brothers and sisters - John Mackenzie was the fifth generation of his family to have lived here (family tree: p 39). Roderick Mackenzie, John's great great grandfather was born 1774-1778 and was married to Ann MacLean. Amongst their children were two sons, Ian Roderick and Kenneth, who were both living at No. 25 at the time of the 1841 census. When that was taken the house sheltered eight persons, one of whom was Ann MacGregor, a servant lass aged ten - the MacGregors were a cottar family. At this time Kenneth was unmarried; five years later he was tenant of the croft. John's grandfather was described as

Kenneth, son of Ian, Roderick's son, and was 'Kenneth the Drover'. He and his wife, Margaret had seven children, of whom the fourth, William, known as 'William son of the Drover' was the father of John Mackenzie. John's father is said to have been given the croft by his brother, Ian, who may in his turn have received it from his uncle, Kenneth, who was born in 1808. William 'son of the Drover' and his wife moved to No. 26 South Erradale, leaving John, the youngest of their children, to be brought up by his Aunt Peggy, the youngest of Kenneth and Margaret's children who had stayed at home with the old people at No. 25. John was to live there until his death in 1983, and there he was to pass his memories on to Roy Wentworth.

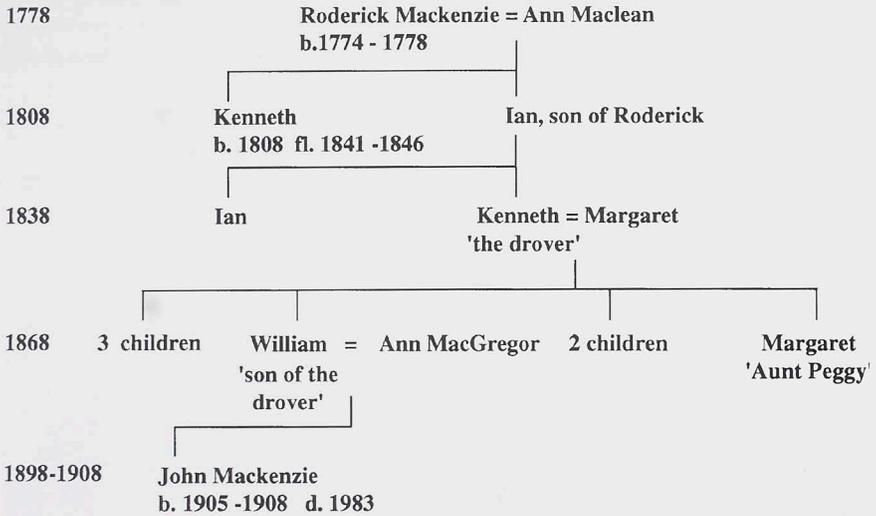


No 25 South Erradale

John Mackenzie recalled two stories about the history of the house; one that it was the first stone house in the area, and that it was about 300 years old; the other that prayer meetings had been held there prior to the building of the Meeting House between Erradale and Opinan. That it was the first stone house in Erradale, or that the oldest part of the house at least had that distinction is perfectly possible. There were still turf houses in Gairloch in 1886, so an early stone house would linger in the folk memory. The figure of 300 years may not be so wide of the mark. The buildings on the croft had certainly taken their present plan prior to 1843 and, if they date in part no further back than to the birth of Roderick Mackenzie, the time span is over 200

years. Given that the Mackenzies had been drovers for perhaps three generations, they may have been a family rich as Gairloch counted riches.

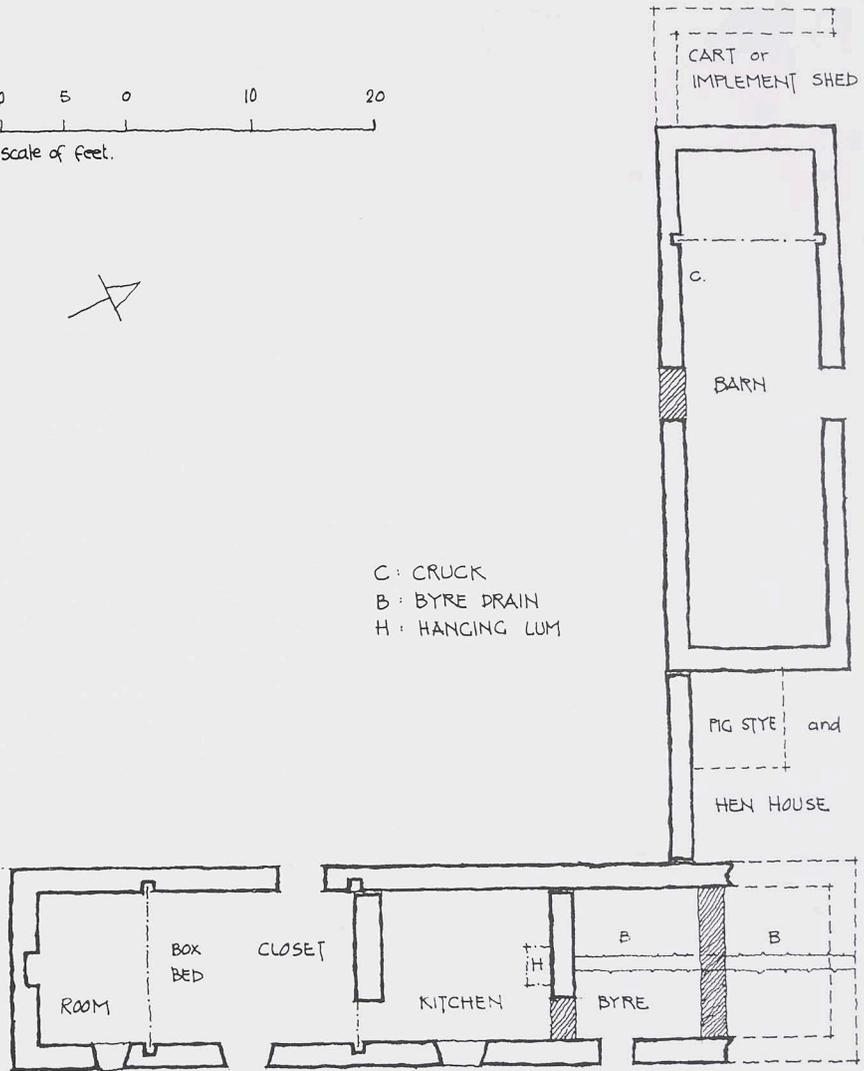
The Mackenzies of South Erradale



Note: Allowing for thirty years to be a generation, which is the conventional span, and for the fact that John Mackenzie was the youngest child, it seems that there must have been five generations of the family.



C : CRUCK
B : BYRE DRAIN
H : HANGING LUM



Nº 25 SOUTH ERRADALE

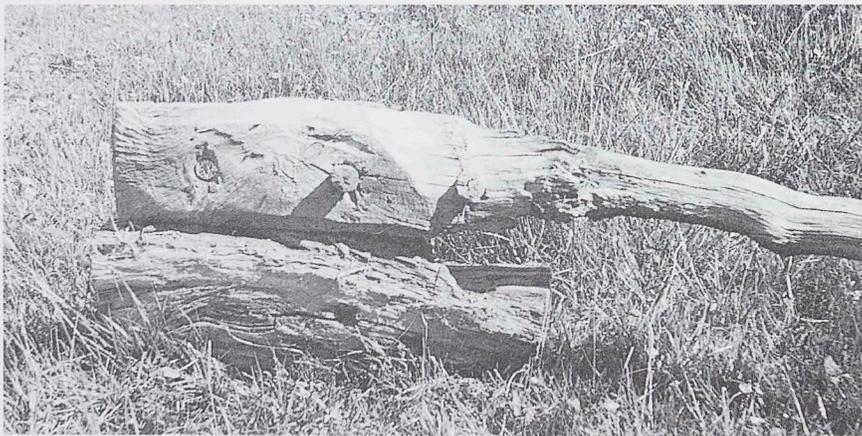


Built-up cruck slot and remains of cruck

The reference to the house being used for prayer meetings may have more to do with its being the largest stone building in the locality than to any sectarian peculiarities of its inhabitants. Larger than either Big Sand or Melvaig either the house or its barn would have provided ample space for the most frantic of religious exercises.

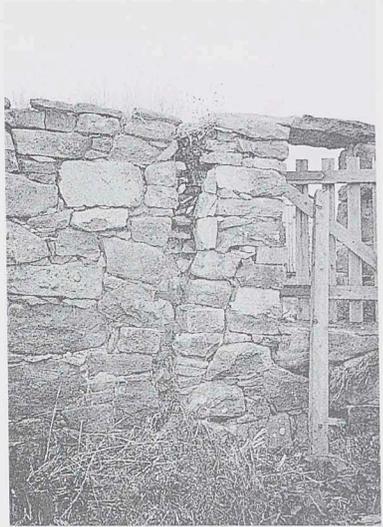
In its present ruinous condition South Erradale is an L-shaped group of buildings with two outlines. It consists of a house, with entry, press, kitchen and room. This together with a byre, which once had standing for six cows forms one arm of the L. The other contained the pig and hen houses, barn and cart, or implement shed. To the south of the main complex is a stable and to the north a barn. Close to the stable is a hollow known as 'Lag na h-Athan' - 'the Hollow of the Kiln' - though whether it was the site of a grain or lime kiln is not certain.

Although at first sight this appears to be a fairly formal arrangement of one build, it is, in fact the result of a number of alterations. The original - and the word must be used with reservations - building was a long stone structure, 69 feet by 16 feet with an internal width of 12 feet, which now



Remains of cruck

contains the house and byre. There were no internal stone partitions, and the roof, which may have been hipped, was carried on jointed crucks, set into the walls at about 17 feet centres. The remains of two of these survive. At some later date two stone partitions were built, one between the byre and the kitchen, and one between the kitchen and the rest of the house. This gave a dwelling with an internal length of 41 feet. It is not clear why it was necessary to build this second partition of stone, it supports no chimney and obscures the cruck slot. Both partitions are clearly insertions and they mark an upgrading of the houses which coincides with the rebuilding of the western gable - the quoins certainly suggest this - and the provision of a fireplace with a vent for the room. The room window was enlarged, and there may have been some heightening of the wall-heads. These alterations took place at a time when it was customary to have a doorway between the byre and the kitchen.



Cruck slot in room

The positioning of the crucks at 17 feet centres shows that there was one on the line of the kitchen-byre partition and one within the demolished area of the byre.



Byre drain



Fire end of the room

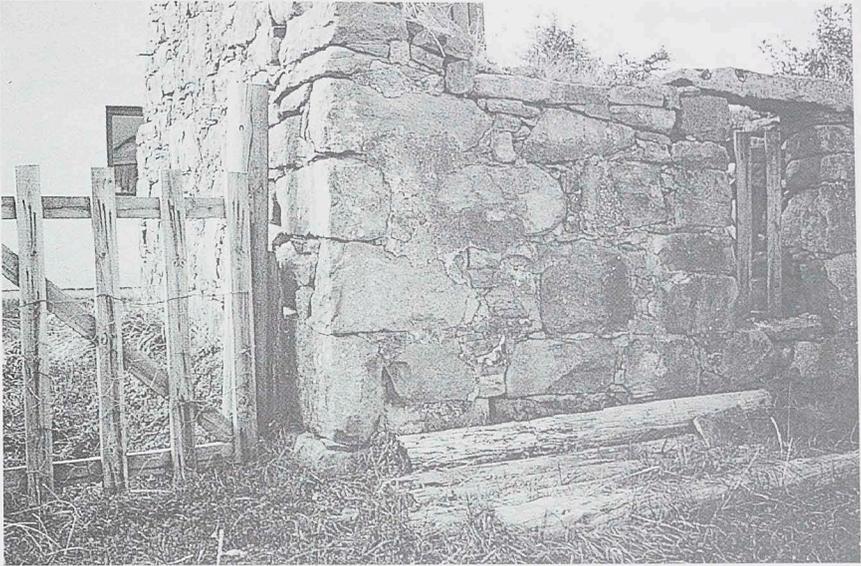
This would allow for a smaller end bay supporting the hip end. Whilst some of the crucks were full height with slots for their posts, others were shorter and set on the wall-heads. This may mean that they were reused from an earlier building on the site or, as the evidence suggests, the posts rotted.

The floors within the house were of tongued and grooved in the room and closet - and possibly in the entry. The boards were laid on joists which were supported by small stones to keep them off the earth. In the kitchen the floor was laid with flags, which John Mackenzie remembered his Aunt Peggy keeping swept and polished. The room was papered with wallpaper, the kitchen with newspaper, a treatment which accords well with the tradition of going 'up to the room' and 'down to the kitchen'.

The only major changes to the building - apart from its ruination - have been the curtailing of the byre by John Mackenzie, who reduced its size to take only three cows, and the replacement of the closet window by a doorway. This was probably done after the house was abandoned.

Externally the house and byre were thatched, and - as at Big Sand - the walls of the house, but not those of the byre, were covered with a thin harl. There was a stone chimney to the room and a plastered one to the kitchen.

Between the byre - the stone drain of which survives - was an open yard containing the pig and hen houses. Beyond this lay the barn, measuring 39 feet by



Rebuilt quoins and gable end

11 feet internally, with paired central doors to catch the prevailing winds for the threshing floor. From the surviving evidence the roof appears to have been hipped with cruck trusses at 8 feet centres. At the north-west end of the barn are the foundations of the cart shed.

Some 300 feet north-east of the house and byre are the ruins of a dry-stone building, measuring 38 feet 7 inches by 13 feet 9 inches, and known as the Black Barn. The name is said to come from the dark colour of the thatch. About 120 feet south-east of the house, and abutting the road are the ruins of another structure known as the Old Stable. Close to this is the area known as 'the Hollow of the Kiln'.

The Black Barn and the Old Stable, as well as the house and its attendant buildings, appear on the Campbell Smith survey, fitting very uncomfortably into the improved estate layout, and clipped closely by the new road.

If it is possible to draw a conclusion about No. 25 it is that it started life as a long-house with a detached barn, and that at some time in the nineteenth century, prior to 1840, there was an upgrading of the two substantial stone-and-cruck buildings on the site. This was probably made possible by the extra income earned from cattle droving.

Acknowledgements

Were it not for Roy Wentworth's initial invitation and the generous sharing of his knowledge, the foregoing would never have been written.

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Byam-Shaw, C. (ed.) *Pigeon Holes of Memory: The Life and times of Dr John Mackenzie (1803-1886)* (1988).

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Appendix: Gaelic Word List compiled by Roy Wentworth

barn : sabhall

black barn : sabhall dubh

black house : taigh dubh (But in the Gairloch dialect 'taigh dubh' also means a bothy for the illicit distillation of whisky.)

byre : bàitheach

byre-drain : carcail

closet : clòsaid

cruck(s), couple(s) : ceangal (ceangail)

fire-place of hobs : àite-teine dhe teinnteanan

flagstone(s) : leac(an)

gable : géibheal ; tulchainn (Both terms used apparently with no difference of meaning.)

hanging lum : simileir-crochaidh

hen-house : bothan-chearc

hip-end : ceann-maol

hollow of the kiln : lag na h-àthann

kitchen : cidsin

floor (of wooden floorboards) : lobht

loft : lobht ; lobht gu h-àrd

joist(s) : sail (thean)

floorboards, loft boards : fiodh lobht

partition (stone-built) : balla cadha

partition (of wood) : talainte

pig styre : fàl-mhuc
purlin(s) : tùbhan (tùbhain)
rafter(s) : cabar (cabair)
ridge : druim
ridgepole : maide droma
roof : mullach
room : rùm
stable : stàbull
thatch : tughadh
tie(s) : spàrr (sparran)
top of the wall inside house : anainn ; faradh (I think both these terms are used now without difference of meaning. But I suspect 'faradh' was the original word for loft, before 'lobht' was borrowed from English or Scots.)
to go down to the kitchen : a' dol sìos dha' n chidsin
to go up to the room : a' dol suas dha' n rùm
ben, 'top' end of house (where the room is) : an ceann shuas, an rùm shuas
but, 'bottom' end of house (where the kitchen is) : an ceann shìos
turf, turves for roof : sgrath(an)
turf, turves for fire : ploc (pluic)
white house : taigh geal. (But this term is not really used in Gairloch Gaelic. For the houses that superseded the black houses, I think that 'taigh tughaidh' is used for thatched house, and 'taigh sglèat' for slated house.)

Limestone was indeed quarried behind Shildaig Lodge Hotel and burnt at a kiln on the shore. But 'Lag na h-Àthann' is a hollow just at the door of the stable at 25 South Erradale, and was where the kiln used to be. Whether it was a limekiln or a kiln for drying grain I do not know.

Roy Wentworth

KIL: VARIETY IN THE DESIGN OF ORKNEY FARM KILNS

Paul Newman

The kiln (kil as it is still called in the Northern Isles) is a characteristic feature of the traditional Orcadian farm. In particular the round kiln attached to the barn is such an important element in the rural landscape of these islands.

In Orkney, as in other areas of Scotland, the climate is such that it is necessary to dry grain before grinding it to meal. Small quantities of grain can be dried in a pot over the fire, but a kiln is required to dry larger quantities. There is archaeological evidence for the existence of circular kilns in Shetland in the 14th century.¹ Reference to kilns is made in the 18th century House Book of Holm.²

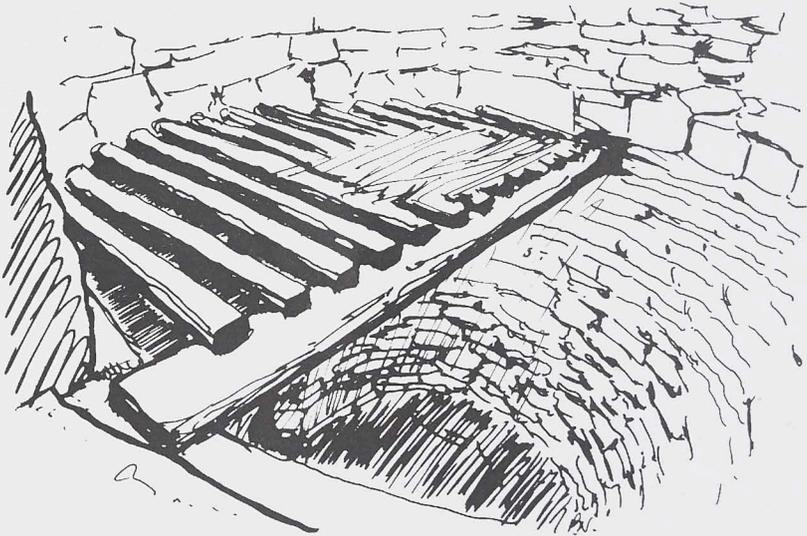
Farm buildings need to be seen as plant used in the processes of farming. They are designed to accommodate specific activities such as threshing, drying, storage, protection of stock, and so on. The barn is the place where grain crops are threshed. Once separated from the stalks, the grain needs to be dried in the kiln before grinding it, either locally in a quern or at the laird's mill, or in later years of the 19th century, at the parish or island mill. The sheaves were threshed by hand with the flail until the small hand-powered threshing machine became generally available around the middle of the 19th century. The arrival of the small threshing machine stimulated much ingenuity and invention in the quest for alternative ways of powering it, by water, wind and horse. A description of a typical kiln and the way it was used, is to be found in the republished *Reminiscences of an Orkney Parish* by John Firth.³

Most of the kilns still to be seen in Orkney today were probably constructed in the early years of the 19th century at a time of great activity in the construction and alteration of stone farm buildings. Many of the large mills were built in the middle of the 19th century. North Ronaldsay did not get a viable island mill with a large kiln until the beginning of the 20th century. The need to go on building farm kilns in North Ronaldsay throughout the 19th century may account for the rectangular one-and-a-half storey style of kiln building found in a number of farms in the southern part of the island. Kilns were no longer built when the large parish mills incorporating substantial kilns were constructed. Farm kilns go on being used for drying malted grain for home-brew into the 20th century. None were found to be in use, other than for storage, during the survey of vernacular buildings on 12 islands carried out by Alison and myself in 1991.

The Orkney kilns have persisted, because in the Northern Isles (in contrast to the Highlands and Western Isles) they were built as part of the barn and built almost there also square kilns especially on North Ronaldsay. There are also a few hybrid

shapes to be found such as square bottle and circular kilns within rectangular outer walls. The circular plan and bottle shape is more difficult to build and uses more stone but may have the advantage of drying the grain more evenly.

The kiln is basically a vertical tube of stone with a flue opening at the top and a smaller horizontal fire tube at the base connected to the base. The vertical tube may be circular or rectangular in plan on the outside. If it is circular outside, it will be circular inside. A rectangular tube is usually rectangular on the inside, although occasionally it may be circular. Internally, the base of the kiln is a bowl, rather like a large version of a tobacco pipe. The fire is contained in a horizontal duct which opens into the bowl. At a height of about a metre from the base of the bowl is the kiln ledge. Usually there are two sockets in the ledge to take a wooden beam, the 'kiln-ace', 'kiln-laece' or 'killace'.⁴ This provided the spine for a demountable suspended drying floor, with kiln sticks for the ribs. Straw would be laid on the sticks to provide a permeable support for the grain.



Corrigal Farm Museum - interior of kiln with killace & kiln sticks

Access to the kiln interior is through a doorway, with the threshold about a metre above the height of the barn floor. More elaborate kilns will have one or two steps built into the wall below the door to aid access. The lintel above the doorway may well be stepped, increasing the head room as you go into the kiln interior. In use the opening was closed with a straw mat, flaikie, or sometimes with a wooden door. If the fire should get out of control and set fire to the drying floor, the killace could

be pulled out from the doorway to allow the burning debris to fall down into the bowl.

John Firth refers to a chute, the 'sheu', which is an opening between the kiln interior and the neuk at the side of the kiln. This was apparently used to allow dried grain to be moved easily into a container in the neuk. We did not find this feature in any of the kilns in our survey.



Nether Brough, Westray - kiln mouth, neuk & fire hole

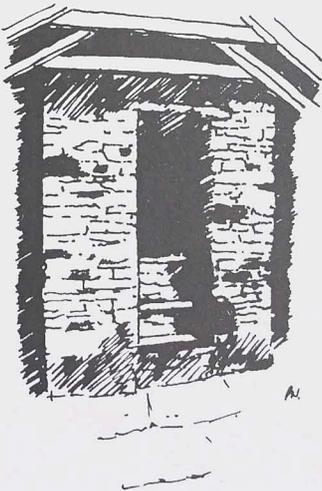


South Hamar, Westray - kiln mouth & fire hole



Nether Brough, Westray - kiln mouth, neuk & fire hole

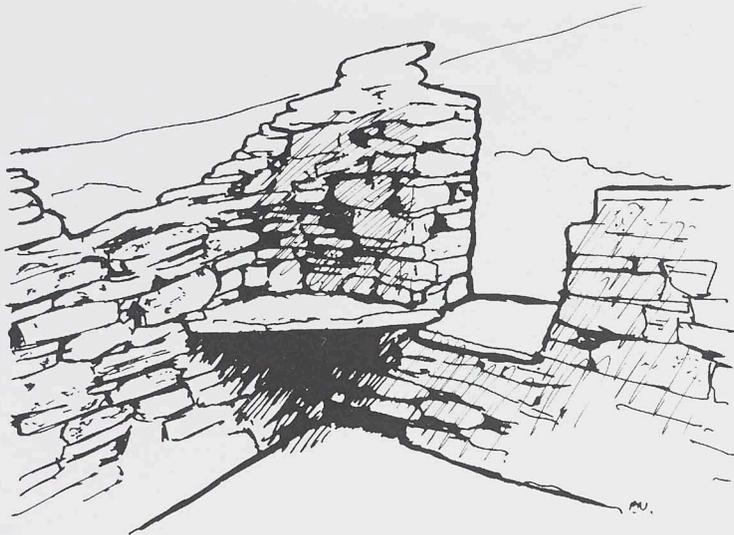
If the kiln is circular the interior will be a classic bottle shape in section, and the top of the kiln would usually be capped with 'feals' or pieces of turf. Many such caps survive, although wooden box lums or barrels which may have provided the equivalent of a chimney pot have long disappeared. External access to the top of the kiln was required to adjust the draft taking account of the wind direction. Some kilns (e.g. Holland, Papa Westray) have projecting stones to provide steps. Rectangular kilns continue with vertical walls up to a pitched roof of couples and flagstones.



Hyval, Sandwick

Frequently there is a warmed cubby hole above the opening to the firehole. Often there will be a neuk at the side of the kiln for storing dried grain and peat, and sometimes there will be a neuk on either side of the kiln. The neuks may be outshot to the barn or may be integral with the barn.

The job of tending the kiln fire was lonely and uncomfortable.⁵ You were



North House, Quandal, Rousay – kiln mouth & quern ledder over fire hole.

roasted at the front and frozen at the back. The most elaborate and elegant barn and kiln are at Jubadie, Evie (one time surveyed by the Royal Commission) where the fire man has been provided with a flagstone screen. In the scant remains of another barn at North House, Quandal, Rousay a 'quern ledder' (shelf for the quern) is located in the angle of the barn walls above the opening to the fire hole.

The variety in kiln types is due to the variations in three dimensional form and also to the spatial relation to the barn in plan. The external form of circular kilns may be bee-skep shaped, cylindrical, cone-on-cube and at least in one instance - cuboid. The kiln is often set off-axis to the barn, sometime to the extent of the kiln wall projecting beyond the side wall of the barn. If the kiln is offset, it could be to the right or left of the barn axis, perhaps more often to the right.



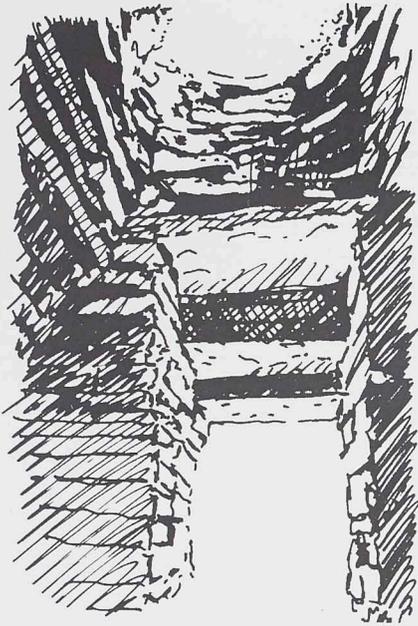
Nether Cleat, Westray - fire hole and oblique kiln mouth to offset kiln



Nether Jubidee, Evie - kiln mouth



Nether Jubidee, Evie - interior of square bottle kiln showing kiln ledge



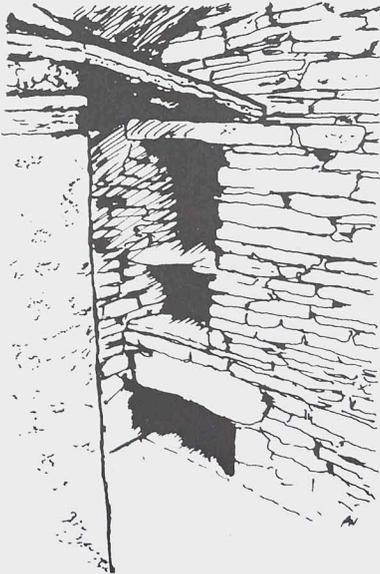
Nether Jubidee, Evie - lintol stones over kiln door & transition to round flue



Nether Jubidee, Evie - lintol stones over kiln door



Jubadee, Birsay - kiln mouth & neuk

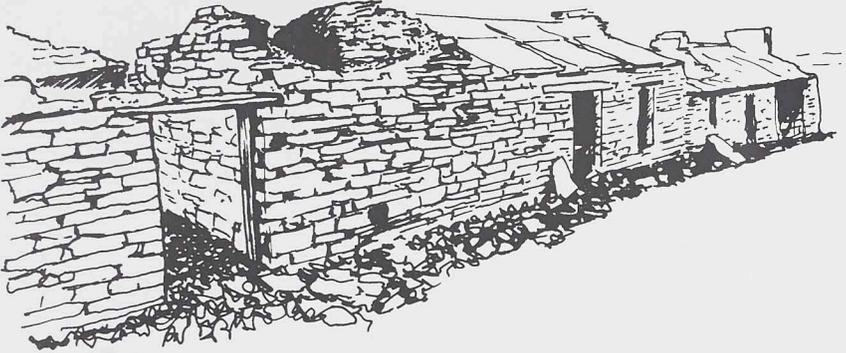


Jubadee, Birsay - fire hole, recesses & screen

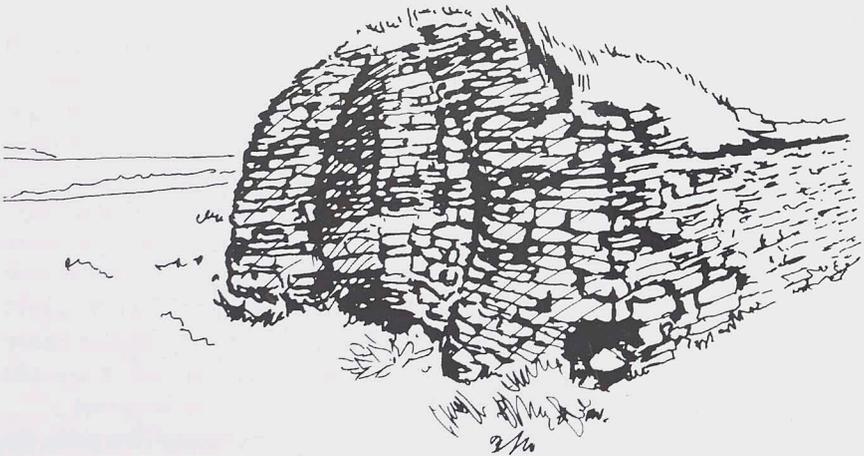
Circular kilns may abut the gable wall of the barn, or may penetrate the gable to some extent. In one case (Holland, Papa Westray) the kiln is quite separate from the barn and linked with a tunnel. This must have been an inconvenient arrangement and it would be interesting to know why it was built this way. In another case (North House, Westray) the kiln is built completely within the rectangular outline of the barn, though the top of the kiln would project above the barn roof.

Where the kiln abuts the barn gable, the gable and the kiln are constructed as one unit. The resulting construction is complex in shape, with transition from circular shape of the kiln to the linear shape of the wall. It is even more complex in three dimensions where the skewers of the gable

wall meet the upper part of the kiln. In plan the gable wall becomes part of the kiln construction and will accommodate the concavity of the interior surface of the kiln, although the curve in the wall often has a larger radius than the curve of the rest of the interior surface of the kiln. In one case (Scarrataing, Graemesay) the kiln has been taken down, but the concavity of the kiln in the gable wall remains as a kind of 'ghost'.



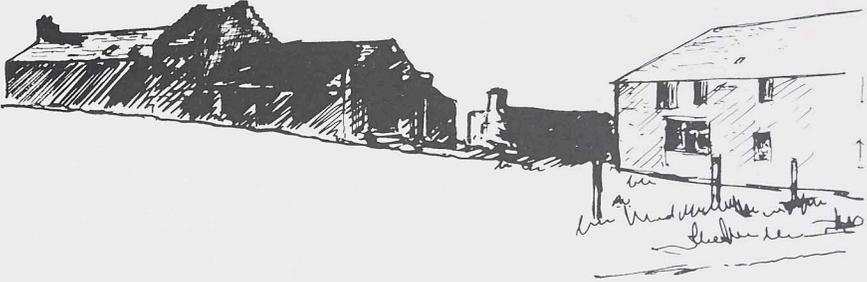
North House, Westray - round kiln incorporated within rectangular building



Scarrataing, Graemesay - gable showing 'ghost' of a kiln

The 'high farming' of the moneyed classes who promoted and implemented the ideas of agricultural reform in Eastern Scotland had its effect in Orkney. A number of farms (very large by the standards of the traditional farm) were built

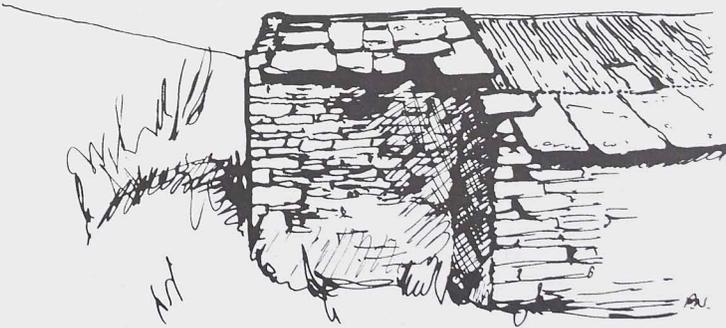
throughout Orkney, especially on the mainland and Westray. These large farms have a quite different layout. John Shirreff's 'court of offices' were the first to use threshing machines, and might have rectangular one-and-a-half storey kilns with pitched roofs (as at Braebuster, Deerness).⁶



Braebuster, Deerness - one & a half storey rectangular kiln on a large farm

The traditional layout of small farms in Orkney would be two lines of building separated by a narrow closs. One line would comprise house and byre. The other line would include kiln, barn and probably a second byre. One can see small farms where this layout gives way to L-shaped or possibly U-shaped plans which must reflect influences from the farms of the lairds. My view is that rectangular kilns on small farms are also examples of the influence of kiln design on the grand farms like Braebuster.

Rectangular kilns are to be found on some smaller farms but are not at all obvious to the observer without local knowledge as being single storey, they simply look like the parts of the barn building. They have long since lost any box chimney which would help to identify them. Illustrated examples are Barm, Redland and Sulland, Westray.



Barm, Redland - rectangular kiln

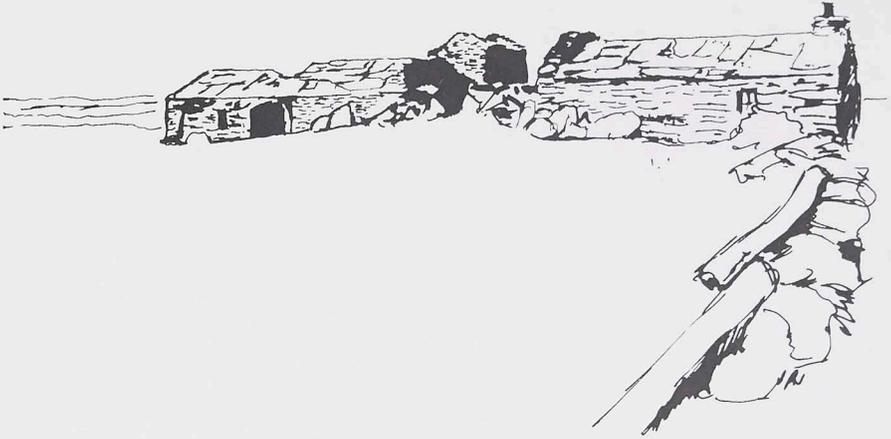


Sulland, Westray - rectangular kiln

North Ronaldsay has a number of small farms in the southern part of the island (Bustatoun and Nesstoun areas) which are quite different from the traditional double line of buildings with a round kiln attached to the end of the barn. These farms have buildings set at right angles to one another to approximate a T or L shape. The rectangular one-and-a-half storey kilns are set near the centre of the complex and at the side, rather than the end, of the barn. These buildings with low pitched roofs dominated by the kiln have a slight Italianate air about them, particularly when they sit on a farm mound (Gateside and Verracott).



Gateside, North Ronaldsay - one & a half storey rectangular kiln



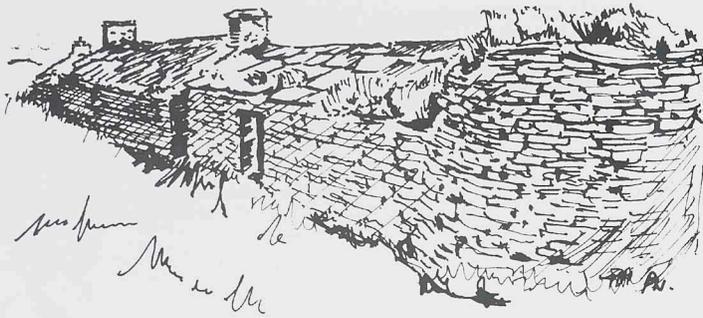
Verracott, North Ronaldsay - one & a half storey rectangular kiln

I have yet to find confirmation for my theory that these farms were built in the 1830s to the ideas of Robert Scarth the factor for North Ronaldsay at the time. William Thomson comments

The kelp (market) collapse of 1831 had left North Ronaldsay in a desperate position, over-populated, deprived of its livelihood and practising a debased form of run-rig agriculture. The following year Scarth abolished run-rig over most of the island and squared the land into small farms, a reorganisation accompanied by rent increases which the population had difficulty in paying in their reduced circumstances. Four years later Scarth had to assist with the emigration of thirty-two families from the island.⁷

My current opinion is that these farm buildings may have been built as a consequence of Robert Scarth's reorganisation and quite possibly incorporated his ideas on the appropriate layout of buildings and the design of kilns derived from the grant farms of 'improving' lairds. Externally, these kilns (Verracott; Gateside; North Ronaldsay) appear as scaled-down versions of the kind of kiln at large farms in the 'high' farming tradition like Braebuster. Whatever the reasons for their existence, farms like Verracott and Gateside are particularly attractive.

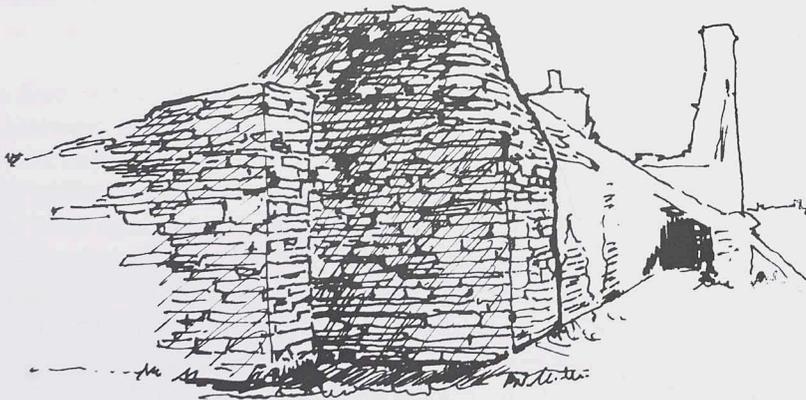
During the 1991 survey, some 46 identified kilns were photographed - there are many more surviving kilns which we did not photograph (drawings of 21 of these are included in this paper). Of the round kilns, most are of the round bee-skep shape externally, with some being cylindrical and one a cone-on-cylinder type. The shapes



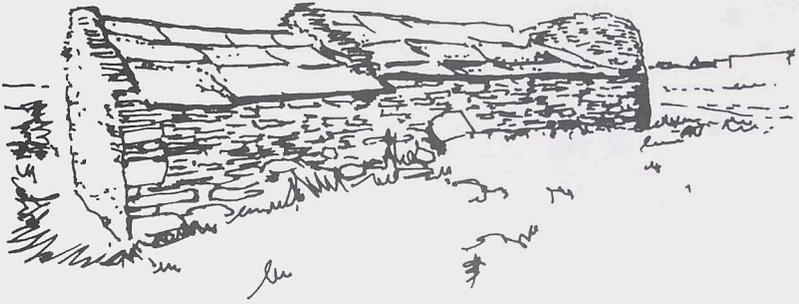
South Hamar, Westray



Nether Jubidee, Evie - rectangular walls around kiln



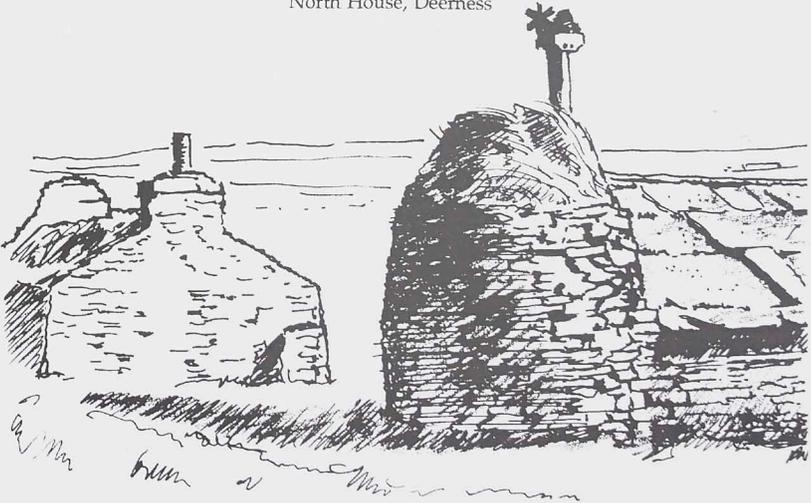
Sneuksbrae, Westray - transition to round kiln from rectangular base



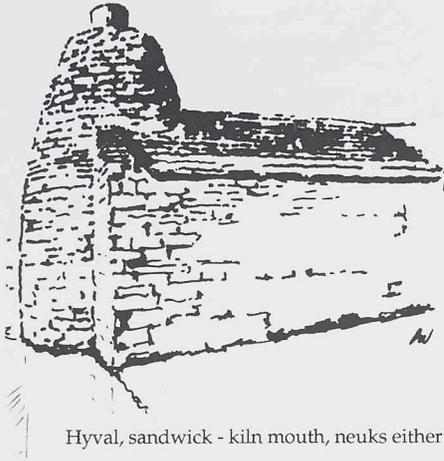
Nether Brough, Westray



North House, Deerness



Sangar, Westray - kiln, barn & windmill



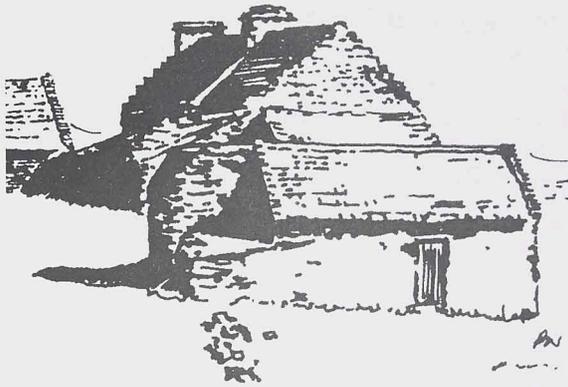
Hyval, sandwick - kiln mouth, neuks either side of kiln



Gridgar, Marwick - kiln & curved wall around neuk



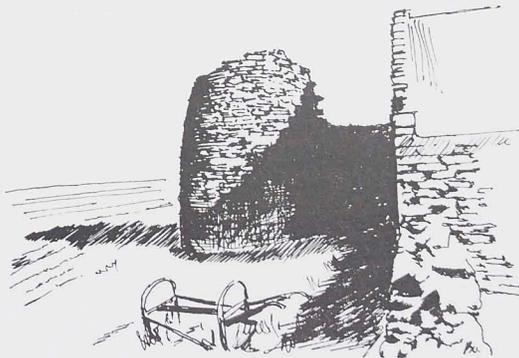
Jubadee, Birsay - serpentine walls



Hestikelday, Holm - outshot neuk at side of kiln



Crows Nest, Rackwick, Hoy - kiln mouth, neuk & fire hole



Holland, Papa Westray - kiln connected to barn through tunnel

are rather variable so this classification sometimes depends literally on your view-point! Every kiln is unique in some aspect or another. Holland, Papa Westray appears to be a unique case of the kiln being completely detached from the barn. North House, Westray was the only round kiln found to be completely contained within the rectangular walls of the barn.

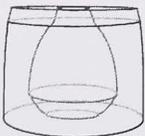
Rectangular single-storey kilns are probably under-represented in the 1991 survey, simply because they are often visually indistinguishable from the adjacent barns. However, the one-and-a-half storey kilns on North Ronaldsay are distinctive. The plan of each of the farms with this type of kiln in the southern part of the islands is unique, so the relationship of the kiln to the other buildings varies from farm to farm. The relationship of kiln to barn tends to be particular to each farm.

Table 1 : BOTTLE KILNS

| KILN SHAPE Ext KILN SHAPE Int | Bee-skep Round Bottle | Cone on Cylinder Round Bottle | Cylinder Round Bottle | Cone on Cube Round Bottle | Pyramid on Cube Square Bottle |
|--|---|----------------------------------|--------------------------|-------------------------------|----------------------------------|
| KILN re BARN | | | | | |
| Detached | Holland | | | | |
| Attached, on axis | North House <i>Deerness</i> Scarrataing | | | Sneuksbrae | |
| Attached, off-set | South Hamar Sangar | | | | |
| Attached, off-set with outshot neuk or split gable | Crows Nest Nether Brough Jubadie | Hestikelday | Gridgar | | |
| Attached, extended off-set | | | Nether Cleat | | |
| Half embedded | Hyval | | | | |
| Fully embedded | | | | North House <i>Westray</i> | Nether Jubidee <i>Eyie</i> |



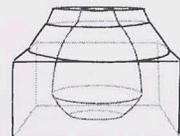
Bee-Skep
Round-Bottle



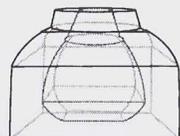
Cylinder
Round-Bottle



Cone-on-Cylinder
Round-Bottle



Cone-on-Cube
Round-Bottle



Pyramid-on-Cube
Square-Bottle

BOTTLE KILNS

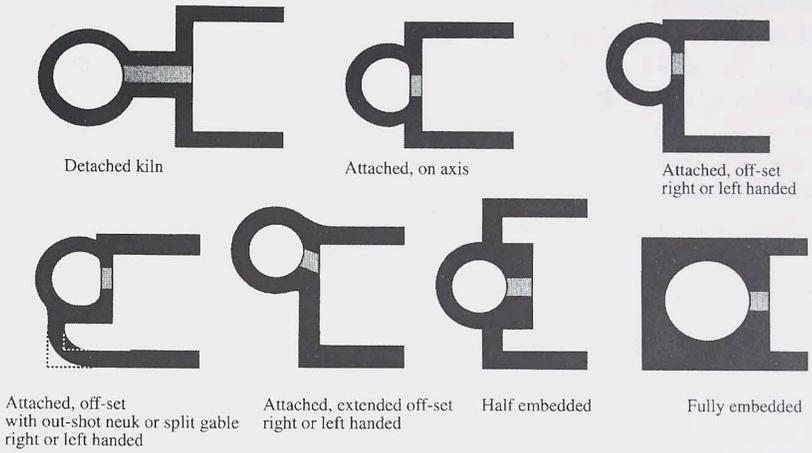
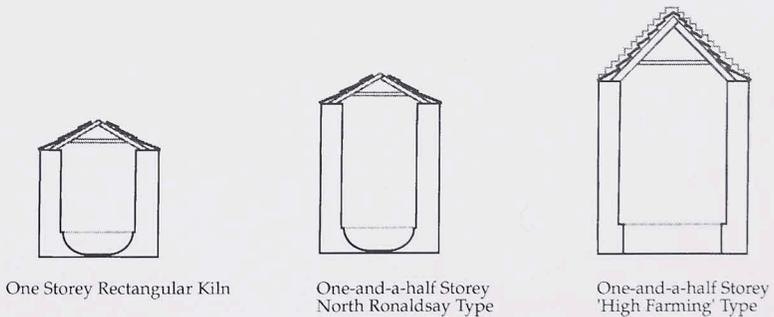


Table 2 : RECTANGULAR KILNS

| KILN HEIGHT re BARN | One Storey | One-and-a-half Storey |
|---|---------------------|---------------------------|
| Kiln at end of barn | Barm Sulland | |
| Kiln at side or angle N Ronaldsay Type | | Verracott Gateside |
| 'High farming' type | | Braebuster |



Perhaps the most remarkable kiln and barn complex is at Jubadee, Edie. These buildings are remarkable for quality of design, for the serpentine walls and for all the well considered detail. Whoever built these buildings had the needs of the farmer well in mind as well as an eye for elegance.

The round kilns in particular tend to be the most enduring part of the old farm buildings, yet many are in a perilous condition especially on abandoned farmsteads. It would be quite tragic if they are allowed to go on deteriorating. As far as I know, the only farm kilns included in the Statutory List of Buildings of Special Architectural or Historic Interest for Orkney are at the two farm museums on the Orkney mainland (Corrigal and Kirkbister) and the farm at Holland, Papa Westray (all Category B-listed). Much of the interest is in the variety of kiln shape and construction, so from the point of view of the vernacular heritage it is important that a range of farm kilns are conserved.

High on my list of precious buildings is the kiln, barn and windmill group at Sangar, Westray; the elegant kiln and barn at Jubidee, Birsay; the farm buildings of Verracott and Gateside, North Ronaldsay with their one-and-a-half storey kilns; the rectangular bottle kiln at nether Jubadee, Evie; The Hestikelday, Holm farm building complex; and the Holland, Papa Westray is perhaps the best surviving large kiln. I am not suggesting that these buildings should necessarily be listed (because listing will not of itself save them) but that they are particular good examples that really ought to be conserved. The mechanism and resources for their conservation are yet to materialise.

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3. Firth, J. *Reminiscences of an Orkney Parish* Orkney Natural History Society (1974).
4. Fenton, A. (1978) 381.
5. Firth, J. (1974) chapters 4 & 5.
6. Shirreff, J. *General View of Agriculture of the Orkney Islands with observations on the means of their improvement; drawn up for the consideration of the Board of Agriculture* (1814).
7. Thomson, W. *The Little General and the Rousay Crofters* (1981) 47.

REBUILDING JEANIE MACALPINE'S INN: AN INTERIM REPORT

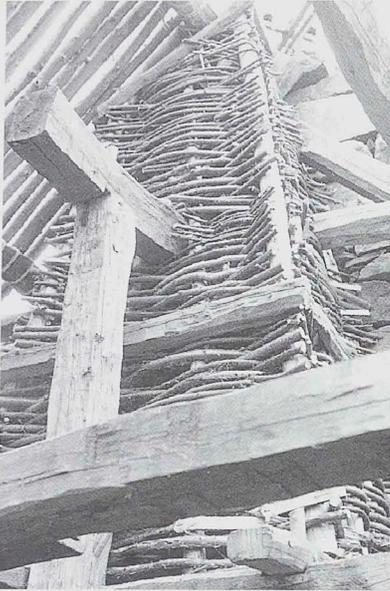
Sam Seabrook and Brian Wilson

In volume 15 of *Vernacular Building* (1991) we wrote of our 'progress' renovating Jeanie MacAlpine's Inn, a wonderful cottage which had fallen into disrepair around 1900, and of its association with 'Rob Roy' and Sir Walter Scott. There is a mass of evidence in postcards, photographs, literature and miniature porcelain cottages showing details of the shape and structure of the building which we have endeavoured to copy in every way using, with few exceptions, the materials and methods of the time.

Well, progress continues and we have actually thatched the first two sections of the roof, and we hope to finish thatching the last two sections this year (1994). We have learnt (apart from acquiring an ability to disregard inclement weather) that the amount of work involved - manpower hours and effort is just unbelievable. Goodness knows how they would have managed in the old days. Of course there would have been elements of piece-meal and patch work. But the stones would have taken weeks and months to gather and transport from miles around, thousands of them selected and sometimes worked upon to get the right shape. The amount of work required when, at the same time, you have to keep the family fed and warm (without state benefits) is unimaginable - no machinery - no mechanised barrow (we have a lovely Honda) - and what about those special lintels and ridge poles?

It is simply just hard work; and enjoyment. For example in September and October 1992 we had six weeks of almost endless sun when we encouraged 80 volunteers and professionals at different times to help with the thatching - we pulled





and stripped 140,000 lengths of bracken - 7 tons - whilst Duncan Mattheson and his son Doodie, thatched the roof.

Nothing is easy, nor straightforward and the four of us, Maggie, Sam and Rowan Seabrook and Brian Wilson, have been working almost 5 years with an auspicious Jean MacAlpine's Inn Restoration Group to advise, comprising of: ourselves; Sam Scott of Royal Commission on the Ancient and Historical Monuments of Scotland; Jim Souness of Friends of Thatched Houses; and helpers when needed e.g. Martin Hadlington for lime mortar, Frank Bracewell for good advice on contacts (National Trust for Scotland) and Veronica Howard the representative of The Scottish Conservation Projects Trust.

All the stonework is complete including the gable ends. The oak beams, purlins and other timbers have been added and are generally in place. The cabers have been cut, de-barked and treated. The heather turf is being gathered, as is broom, our next thatching material. Meanwhile Jim Souness (Cairdean nan taighean tughha) has agreed to thatch the fourth unit in November 1994 with rushes. Next year we hope to report that it is finished and that it is lovely; this article is by way of a progress report. We are still at it and still alive!

Note

Brian Wilson and Rowan Seabrook are also renovating the cottage at nearby Killin, known as Moirlanich Long House, on behalf of The National Trust for Scotland - another must to visit.



SHORT NOTICES

VERNACULAR ARCHITECTURE

Vernacular Architecture is the journal of the Vernacular Architecture Group (of England and Wales) and is received by SVBWG on an exchange basis. The journal is held in the Library of the National Monuments Record, John Sinclair House, Bernard Terrace, Edinburgh which is open to the public.

The journal is A4 size and contains about 70 pages. Volume 25 for 1994 contains the following articles:

Ships' timbers: some evidence from Norfolk for their use;

Identifying and classifying masons' marks;

Covenants in conveyancy instruments: a note for the vernacular architectural historian; and

Arlington Row, Bibury, Gloucestershire: early conversion of an industrial building.

There is a regular feature on tree ring dates and a good number of book reviews. The issue also contains an index to volumes 20-24 (1989-1993).

In general articles cover a wide range of topics including construction techniques, particular building forms, and documentary evidence. Broader issues are also treated: for instance volume 23 includes an article on population and housing over the period 1550 to 1850 which relates building phases to demographic history and volume 22 contains articles on the problems in defining the social status of yeoman and small gentry houses in the seventeenth- and eighteenth-century and the use of upper floors in rural houses, a study of the introduction of lofts and first floor chambers in small yeoman houses from the 16th century onwards.

Malcolm Bangor-Jones

BOOK REVIEW

Noel Fojut, Denys Pringle and Bruce Walker, *The ancient monuments of the Western Isles* (1994), Historic Scotland, 72pp, illustrated, ISBN 0 11 495201 9, £3.95

This is an excellent guide to the archaeological and historic sites of the Western Isles. The book, which traces the history of human habitation in the Western Isles from the Mesolithic period to the development of Stornoway, is divided into ten chapters each consisting of a general introduction setting the historical context followed by a detailed description of sites to visit. The guide concentrates on those sites which are the best preserved and most accessible. However, despite this popularist approach, the authors have not hesitated to put forward new or speculative ideas and indeed the text assumes a basic familiarity with archaeological/architectural jargon. There is also a good list of further reading.

A very welcome feature of the book, and one which distinguishes it from the companion volume for Shetland, is the section on the traditional buildings after the '45 Jacobite Rebellion. I am not sure that one can attribute the "unimproved" nature of Scottish housing prior to 1745 solely to the influence of Scots law. But this a minor lapse in an otherwise authoritative survey of the changing character of housing from Dr Johnston in 1773 down to the impact of the different policies followed by the sanitary inspectors from the late 19th century (prior to local government re-organisation in 1975 Lewis was part of Ross and Cromarty while the remainder of the Western Isles belonged to Inverness-shire). Also worthy of note is the attention given to building materials such as corrugated iron, mass-concrete and bituminous felt. The list of sites includes St Kilda village, Arnol black house and the horizontal mill at Shawbost. The description of Arnol contains a valuable discussion of the principles involved in black house design and should assist in spreading a better appreciation of the sophistication of this building type.

Illustrated with some fine photographs, plans and diagrams, this is an attractive and informative publication: at £3.95, courtesy of support from the Western Isles Tourist Board and the Western Isles EC Leader Programme, it is a bargain.

Malcolm Bangor-Jones

CONTRIBUTORS

David Alston is Curator of Cromarty Courthouse Museum. Currently working on a PhD part-time at the University of Dundee.

Malcolm Bangor-Jones is a civil servant at The Scottish Office. Engaged in research on various aspects of Highland economic and social history.

Graham Douglas works for the Royal Commission on the Ancient and Historical Monuments of Scotland.

Munro Dunn retired in 1990 as an economist with The Scottish Office Agriculture Department.

John Harrison lives in Stirling where he works as a historical consultant, lecturer and writer. His particular interest is Stirling around 1700.

Paul Mitchell was born and brought up in Elgin. Educated at Edinburgh College of Art and Oxford Polytechnic. Conservation Officer with Angus District Council.

Paul Newman recently retired from his post in Edinburgh University's Department of Architecture. Book on *Rural Buildings of Orkney* will be published in due course.

Jocelyn Rendall farms at Halland, Papay, Orkney. Previously worked in museums. Researching traditional buildings in the Northern Isles.

Sam Seabrook lives near Aberfoyle.

Harry Gordon Slade was an architect and inspector with English Heritage. Published papers on variety of Scottish architectural history subjects including vernacular buildings.

Brian Wilson lives near Ullapool.

Thanks also to Malcolm Bangor-Jones and Carolyn Bain for assisting with the production of *Vernacular Building*.

SCOTTISH VERNACULAR BUILDINGS WORKING GROUP

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 social patterns, as well as those who have a specialised 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 1994 the 22nd Conference was based at Newton Stewart and the autumn meeting in Dundee. The 1995 spring conference was based on the Isle of Bute.

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

Annual subscription rates 1995-1996

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| Ordinary membership (UK only) | £10 |
| Ordinary membership (outside UK) | £15 |
| Joint membership (one copy Vernacular Building Journal annually) | £15 |
| Corporate membership | £15 |
| Student membership | £5 |

For membership application forms and details of publications please contact:

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