About two years ago a circular pigsty from Hendre Ifan Prosser farm, Glyn Taf, Pontypridd, was re-erected at the Welsh Folk Museum in St. Fagans, near Cardiff. The re-erection of this little structure caused great interest amongst the visitors who saw it, with all sorts of suggestions being put forward to explain its purpose. The commonest suggestion was that it was a well, but others included a lime-kiln or an animal-pen: only one or two, more perceptive or more familiar with the type, knew or guessed what it was. Visitors from as far away as South Africa and New England were familiar with this kind of building, but with different uses - in South Africa large circular buildings of dry stone were used as houses by the early Boer settlers, and in New England and other parts of North America, such structures are used as root-stores to keep vegetables over winter.

Most primitive cultures all over the world live in circular dwellings, for the simple reason that they are easier to construct, in either mud or dry-stone walling - no corners are needed, and corners, in both these techniques, are the weak points in the building. Even in Western Europe today many people live in circular houses - they are common both in Italy and parts of France, the Dordogne for example. In Britain itself there are many kinds of circular buildings - dovecots, castle towers, windmills, lime kilns, even the occasional circular lavatory.

Most circular pigsties are corbelled, a technique dating back to 1350 BC in the Treasury of Atreus at Mycenae, and probably going back considerably further into antiquity in the chambered tombs of western Britain. The great advantage of corbelling from the builder's viewpoint is that it requires nothing other than stone, neither timber nor mortar. A circle is first built of the easily-splittable
Known distribution of circular corbelled pigsties in Wales up to April 1979.

0 - 50 km.
local stone (most sties are some 2m. in diameter externally), and then another on top of it, and so on until shoulder-height is reached. All the stones in this wall slope slightly downwards, so that the water is thrown down and out of the building. Every few courses in the Hendre Ifan Prosser sty (the only one to be scientifically examined) there was a course of through stones, large flat slabs butting against each other. At about shoulder height, the builder begins to decrease the size of his circles, so that the inside of the structure begins to get smaller: too large a jump and the course will collapse. A key-stone is put in at the top to lock the whole structure together: the more the weight of the stonework presses inwards, the tighter the building holds together. The structure is finished by putting either a round, flat stone on top, or by putting up a decorative finial in the form of a single stone standing upright on its end. One or two pigsties have a pointed end. These are up to 3.40 m tall. The average seems to be about 3 m, though some examples are as low as 2 m with a headroom of only 1.30 m. Most sties have a yard in front of them: in the Vale of Glamorgan and eastern Dyfed they were whitewashed at least once a year, like every other building in these areas. A few of the pigsties are rendered or rough-cast on the outside.

Of similar form but different construction are the mud and thatch sties known to have existed in both Dyfed and Glamorgan. One was demolished as late as 1973. These are very reminiscent of the circular sties of Brittany, which likewise are often of mud and thatch - but there with scarfed crucks.

In 1940, 35 of these circular and corbelled pigsties were known in Wales, 31 of them still standing. By now the existence, or former existence, of at least 60 is known. Their distribution is markedly southern. The only examples of true corbelling in such structures known from north Wales come from a farm where eight small square pigsties are joined
together. The interesting point about these sties is that, although square, their roofs are corbelled in exactly the same way as the other sties. Indeed, two sties at a farm in Gwent are of exactly comparable form. Others are said to be found near Wigan in Lancashire.

It is difficult to explain this marked southern distribution but it might be worth noting that this distribution is also that of a number of other 'primitive' features in Wales, such as the longhouse, where family and animals shared the same house. It is equally difficult to date the surviving examples. The Hendre Ifan Prosser pigsty includes a lot of re-used roofing tiles in its make-up, and together with other finds, suggest a date of not before the late eighteenth century. Without demolition or dismantling it is impossible to give a close date to any of these structures, but a circular foundation was found at Mynydd Bychan in the Vale of Glamorgan dating to the 11th-13th centuries A.D., which may well in view of its small size have been a pigsty. Iron Age and Dark Age houses in north-west Wales were normally circular and of stone— but there no sties are known. The latest dated pigsty is one from Llanover, Gwent, bearing a datestone of 1856. This is corbelled internally, but also bears a stone slate roof. It seems likely that this was built by the local landowner, Lady Llanover (the wife of Sir Benjamin Hall, of 'Big Ben' fame) as part of her quest for the Welsh past.

The English travellers of the late 18th and early 19th centuries frequently commented on these, to them uniquely Welsh, circular pigsties. A traveller drew "a pig house of which I saw several about 5' wide and 10' high of stone" near Tenby in Dyfed in 1796. About the same period another traveller saw one in Gwent : "A very singular Pig Styte attracted my notice both from its peculiar neatness and being entirely out of the common way, it was made something like a Bee hive, appeared to be lath and plaister and newly whitewashed". Benjamin Heath Malkin visited
St. Donats in the Vale of Glamorgan in 1803: "In this village are several specimens of the genuine Welsh pig-sty the conical form and solid fabric of which give an air of architectural dignity to these edifices, not granted to the habitations of so slovenly a race in England". One of these still stands.

The question of why pigs were still built circular sties in Wales when all other animals and humans lived in rectangular buildings is difficult to answer. Pigs were amongst the smallest of domestic animals, and corbelling is difficult to achieve using non-skilled labour with a large building. Likewise, pigs are great destroyers: a circular structure has the advantage that it is totally pig-proof. Be that as it may, the circular pigsties of south Wales are one example of the survival of a prehistoric building technique in Britain.

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W. Ashley Bartlam

BOX BEDS ON THE ISLAND OF STROMA, CAITHNESS

Making the most of available space governs the design of box beds observed in a cottage on the now depopulated island of Stroma in the Pentland Firth. The cottage stands near the old chapel towards the east side of the island and when it was visited in 1977 it was still reasonably wind and weathertight. Stone built and roofed in slates over sarking and with wood, sash and case windows, the building is typical of almost any early 19th century Scottish cottage.

The Sketch plan shows the arrangement of the rooms. The small scale of the accommodation should be noted. The full width room at either end of the house has in one case a cooking range set against the gable with a press beside it and a stone flagged floor and at the other end a fireplace with hobs and a timber floor. In the centre front is the entrance door shielded by a stone porch built against the outside wall. The entrance door opens onto a passage connecting the two end rooms and with a ceiling hatch giving access to the roof space by way of a hinged and counterweighted ladder. Behind the passage and between the end rooms is a smaller centre room occupying the remainder of the space and with a door into it from one end room. This centre room has a wooden floor and two box beds with space between for a third bed.

The two sides of the box beds are open and either side is capable of being closed by a removable boarded panel set into a check and held in place by wooden turn buttons. The panel can be mounted on either side of the bed.

A moment's reflection will show the large number of possible combinations of sleeping arrangements this facility provides and allows the usual domestic problems of different sexes, generation gaps, relationships and even family crises.
like sickness and death to be simply and decently catered for. For example because the panels may be placed so that each of the beds is accessible from either adjacent room, one might be placed to allow use of the bed from the end room with the cooking range and deny it to the centre room. This might be, and probably mostly was, used by the husband and wife. The other bed with the panel arranged to give access from the room at the other end of the house might perhaps have been used on occasion by an elderly relation still living with the family, leaving the small centre room with no box bed facility but with a separate bed set into the space between and available for the children.

If there was need to increase the sleeping accommodation in the small centre room either of the box beds could have its removable panel shifted across to close the opening to the end room and open it to the centre room or with the panel out and laid aside a sort of rudimentary open plan is formed and the centre room is joined visually to either or both end rooms.
This would be a boon to a mother with very young children needing to be kept under observation most of the time and would also allow more warmth to circulate to the bedroom from the living room.

The beds are of course constructed in timber and are integral with the partitions of which they form part. Below each bed is a space closed off to preserve a tidy appearance, reduce draughts and complete the partition wall but available for storage and accessible through a hinged panel. Although wider than ships bunks the beds are very reminiscent of them and indeed much of the timber used in their construction and that of the island houses themselves was obviously salvaged from ships. The beds were provided with a mattress or paliasse of straw.

The remaining space between the end room and the centre room at the foot of the box bed is taken up by cupboards
accessible from each room respectively. Long wooden pegs above the bed recess provide for hanging curtains, accommodation for clothes, gear and equipment or anything else at the occupant's discretion.

The substantial stone porch over the entrance door on the south side of the building has two outside doors facing east and west respectively. This always allows the leeward or sheltered door to be used, an important point on an exposed island where winter gales can sweep spray from the stormy Pentland Firth clear across the tiny island from side to side.
James H. Stewart

VERNACULAR BUILDINGS AND THE PROBLEM OF SETTLEMENT EVOLUTION

The study of vernacular buildings is part of a wider field of research into the evolution of human settlements. This should consider the topographical palimpsest of the landscape which conceals the processes of history. The objective of the research which forms the basis of this paper is to concentrate upon one well defined and historically stable Highland parish in a sustained programme of study, using field evidence and documentary sources together. Balquhidder (OS. Grid Ref. NN 536209) in Stirling District of the Central Region of Scotland promised to be a suitable subject. The topography and settlement pattern is typically Highland, but proximity to the central lowlands of Scotland and its inclusion in both crown and feudal estates since late middle ages has ensured the existence of reasonable documentary evidence. Until the commencement of twentieth century afforestation programmes the field evidence has remained visible.

Documentary sources available include transcripts by earlier researchers from the Exchequer Rolles and Registers of Sasines, the Atholl and Tullibardine papers, the Ardvorlich Papers, the Drummond Estate Papers, commissioned family histories, surveys and reports for the commissioners of Forfeited Estates, and papers and photographic records in local family collections. Cockburn mapped the barony of Balquhidder for the Commissioners in 1756. Stobie published maps of Perthshire and Clackmannanshire in 1787. MacEwen of Callander mapped the Glen Buckie estates in 1808. Langlands repeated this work with additions which included the Stronvar estate in 1814. The first edition of the Ordnance Survey six inch series appeared in 1866 and 1867. The old parish registers are extant from the early eighteenth century. Enumerators' reports for the census of Scotland are extant for all the nineteenth century surveys. School log books are available for the latter part of the nineteenth century. The Register of
XX. CENTURY BOUNDARIES OF IMMEREON & BAILEMORE

GLENBUCKIE HOLDINGS - 1808

LIANACH - 1808

GLEN BUCKIE - MIGRATION OF BUILDING GROUPS

LIANACH - PROBABLE MIGRATION OF CLACHANS
1787 - 1865
Testaments for Dunblane, and local muster rolls, are available. Some descriptive material for the region in general exists in Wordsworth (1803) and in James Hogg's accounts of his journeys. Parish boundary changes in the nineteenth century consisted of ceding one complete enumeration district to Comrie out of the old quoad sacra parish, so there are no major problems of definition. The Forestry Commission, one large commercial forestry company, and local farming landowners, have been enthusiastically co-operative with regard to field work.

Validation of evidence from sources and maps formed the first problem. An initial field survey was made in 1975 and 1976. This confirmed the high degree of reliability of Stobie's survey, both in naming and locating holdings and in showing the groupings of buildings. Errors were usually in the form of missing buildings and were readily checked, the probability being that evidence had been removed from the field. Stobie also noted groups sacked after the Jacobite rebellions which confirmed local tradition. Stobie could therefore be compared with 1866 Ordnance Survey as a first basis for change over the late eighteenth and early nineteenth centuries, and a further check made on the ground supports this comparison. MacEwen (1808) and Langlands (1814) form intermediate survey sources for Glen Buckie and Stronvar, so it was possible to begin to consider local areas within the parish as providing evidence for progressive development and change. Cockburn (1756) in his plan and report provided earlier material for the barony, centred around the Kirkton of Balquhidder. Field checks are more difficult here because of later afforestation and building, but at Auchtow and Cuilt (NN 575223) evidence was found confirming both the road system and the settlement locations. Cockburn proved good enough to re-trace onto the O.S. six inch base with small adjustments. By the end of 1976 it was possible to prepare a distribution of settlements known to have existed in 1502 to 1530, and the total distribution as it accumulated up to 1800. This showed that by 1530 all the major holdings were defined, and could be named and located in the field. Some colonisation of less hospitable places such as Drumlich (NN 431180) probably
contributed to the increase in density in the seventeenth century when they first appear in the Tullibardine schedules. What appeared with general consistency was progressive subdivision of earlier holdings from the end of the seventeenth century to the end of the eighteenth century. The list of farm names was at its greatest in 1800 and the highest population figure had been reached by 1755 when Webster returns 1,592 people. By 1793 the First Statistical Account shows 1,300, and the census of Scotland in 1801 shows 1,377. In 1851, the population is 874 and in 1891 it falls to 612 in the civil parish and 728 for the quoad sacra parish to compare with Webster or the Statistical Account. Place names and locations are stable after 1500, and there is no room, nor evidence, for nomadism or major movement. Several medieval sites have extensive field remains, including one well preserved mill pond and associated water channels. The hypothesis is that within a few hundred metres inside any holding's field area the complete history of the settlement awaits comprehensive investigation. Building groups are consistently either within the infield boundaries or upon, or adjacent to, the dykes which enclose the system. The combined evidence of record, narrative, and map sources, with field survey, points towards a high degree of stability in the locational pattern since the end of the fifteenth century, when Balquhidder was a crown bailiwick under a cadet branch of the Stewart house of Albany. Since that period the feudal control of the parish under the Drummonds and the Atholl and Tullibardine estates probably contributed to stabilising the system.

Each group farm supported from two to five families of principal tenants plus cottars. Groupings of buildings on maps and in the field tend to indicate that there will be one substantial house for each principal tenant. This leaves the problem of the cottar dwellings. It is appropriate here to raise the problem of constructional systems, and the evolution and shift of buildings within the single holding. The Commissioners' report on the barony in 1756 notes that:
VERIFIED BALQUHIDDER SETTLEMENTS – AD 1530

BALQUHIDDER SETTLEMENTS – AD 1800
OPEN HEARTH - LONGHOUSE IN LIANACH

LONGHOUSE IN LIANACH - CIRCA 1820
"the houses are all built of stone, and considering the smallness of the farms and poverty of the inhabitants are generally pretty good".

It also commends Auchtow for eighty roods of 'modern' dyking and for being the 'first builders of dykes in that country'. All the maps from Stobie onwards show dykes in the present day position, which relate to lines of 'modern' dry-stone walls with turf copings. This building tradition using coursed or snecked small stones carries over into the nineteenth century. Field survey also revealed dykes of very large boulders, or mixed boulder and earth baulks, within the barony and elsewhere. Some duplicate the line of later dykes. It is clear that stone or stone-and-earth walls pre-date the 1750 improvements. It is also clear that the stone houses referred to by the Commissioners are distinct from the improved post Commission houses, as one is referred to and described in detail as outstanding. Sites such as Drumlich and Invercairnaig, deserted in the eighteenth century, have extensive remains of bases and walls of buildings in dry stone. On the other hand, accounts of the improvements made after 1848 by the Carnegies of Stronvar commend them for removing the 'old clay houses'. Kailyards which have been found have substantial stone walls, and what are probably collapsed earth baulks, enclosing gardens in the same farm. Work in Glen Buckie reveals houses with post holes inside the walls at correct intervals for crucks or roof posts set into the floor. Within sight are standing buildings of earlier date with cruck bases properly notched into the masonry walling. Most of the evidence in Balquhidder indicates gabled buildings, but walls still standing and the distribution of tumble at a site inspected at Ardvorlich in 1979, just outside the parish, indicate that buildings there may well have had hipped roofs. The hypothesis arises that the traditional approach to building construction which assumes evolution from post-medieval earth and wattle buildings to eighteenth century stone buildings, and regional patterns that can be classified, is too simplistic. It is possible to suggest alternatives, such as stone built buildings for principal tenants and less substantial structures for cottars or squatters, and stone dykes and earth dykes, co-existing through substantial periods of history. The flimsey structures have disappeared, and the stone
walls or stone bases have remained. The need to rebuild even the stone structures, which are none too well constructed, would necessitate the actual groupings of buildings shifting within the field system from time to time. Evidence for late shifts exists from examination of Stobie in comparison with the Ordnance Survey, and the site at Lianach (NN 532172) in Glenbuckie offered the opportunity to test the hypothesis of internal late migration through a suspected phase of rebuilding from 1787 to 1866.

Stobie, MacEwen, and Langlands, show three groups of small buildings along the upper margin of the infield at Lianach in 1787, 1808 and 1814. The first Ordnance Survey in 1866 shows these as ruins, with the northern group replaced by an occupied farm house and yard, but this map also shows a further group of ruins in the lower part of the fields near the river. All these groups still exist as ruins on the site. The early groups consist of medium size rectangular stone bases, with adjacent gardens. The group low down in the site beside the river have considerable amounts of dry-stone walling still standing. The mid-nineteenth century Lianach farm house still remains as a shell of well built rubble masonry with quoin stones, set in lime mortar. This house has chimney stacks in each gable and internal stone fireplaces on the ground floor and in the loft space. The maps postulated a rebuilding programme between 1787 and 1866 which involved moving from the upper to the lower infield, from a spring line to the riverside, followed by desertion of all the more primitive buildings and the construction of a 'modern' house sited again at the upper end of the fields. To test this hypothesis further a substantial building from the riverside group was selected for clearance. Since the summer of 1977 there has emerged from this ruin, a typical Highland long-house twenty seven metres long over the foundations, with a substantial byre divided from a dwelling by a stone dividing wall. There are separate cattle and house doors and also an internal communicating door from house to byre. The house could be divided into two rooms. The house floor is of earth, with an open central hearth and some vestigial flagstones around it. The
LIANACH FARMHOUSE - BUILT BETWEEN 1814 AND 1865
walls are 800mm thick at the base, set upon broad foundation blocks forming a step around the house, and built in two leaves of dry rubble set in clay with small stone infilling to the core. There are no cruck slots, but post holes have been found fairly regularly spaced in the floor against the interior of the walls, which may indicate an internal cruck frame set upon the ground. There are cobbled ramps outside the entrances. Small finds include rough pottery, some white glazed china, sherds of dairy bowls, fragments of bottles and some small glass ware. These indicate that the building was used into the early nineteenth century. Two sickle blades, several sharpening stones, and an agricultural fork and blade of what appears to have been a turf spade were found. Evidence of a small forge exists in the byre. Oxidized buttons, one attached to a fragment of cloth, and some very small coral beads, with part of a fine glass bottle with a broad lip, were found. Parts of panes of thin window glass were found together indicating at least one small window, and some shadows of a window frame were located in the internal earth floor with two possible jamb or head stones. Work is still to be done on this house, but the structure has already become apparent. If the maps are correct it would appear that primitive longhouses were not only used but were probably being built at the turn of the century. The walls have collapsed inwards with force enough to move the byre drain and disturb the floor. Tumble at the ends must indicate collapsed gables by its amount and distribution. Post holes and parts of the floor yielded quantities of charcoal from burnt timber. In the tumble was a layer of fine black dusty soil supporting fine coarse grass and small plants. It is a strong probability that the house was burnt, especially in view of the material found. Its demise must have just preceded or followed the building of the new farm house back at the top of the site, almost over one of the late eighteenth century ruins. The discontinuity from the traditional to the new system of building is marked. Full archaeological investigation would have to prove the hypothesis, but migration from one part of the farm to another within a century of occupation is postulated with some certainty. Lianach appears as a distinct holding in the Atholl Chronicles in 1502, and Glen Buckie was the seat of the...
Stewarts of Balquhidder with no break until the late eighteenth century.

Traditional and improved building techniques and standards have overlapped for the best part of a century in the district. The Commissioners' report in 1756 describes a new house at Stank on Loch Lubnaig as

"a neat dwelling house with brick partitions, glass windows, floors of deal, good sufficient outhouses, and enclosed farm with a sufficient dyke".

Invernenty (NN 455180) was sacked by soldiers after 1745, and rebuilt. The post 1745 cottage ruins stand sufficiently to show a built in fire place and flue in one gable wall. The farmer at Stank is commended for transporting lime along the loch in a boat to improve his land. Glen Buckie appears to have had new dykes and land drainage completed in the early nineteenth century at the latest. This shift from native to improved systems is no longer an evolutionary process, but a distinct discontinuity. At the west end of the parish a similar process was initiated by a MacDonald from Glen Lyon who created a vast farming estate over the turn of the century. After the second quarter of the nineteenth century new farmsteads, built by masons, and probably professionally designed in some cases, began to replace the old buildings. Carnegie engaged David Bryce to rebuild Stronvar in the current baronial style, and to build a new parish church. The Commissioners' engineers built new bridges, and some old roads were re-aligned. Leases contain clauses governing control and modification of water ways (eg: Leichtenscridan Lease 1776), and improvement of buildings, with benefits shared between the Commissioners and the tenants. Extensive sheep farming was established in Balquhidder by 1823, and sheep walks were being advertised.

The landscape had apparently been changing for many years. The Duke of Atholl's factor wrote complaining of the state of the woods at Monachyle in the seventeenth century. Hogg refers to the destruction of the forests. Place name evidence and Wordsworth show that Balquhidder and Strathyre had
been grain growing areas at the end of the eighteenth century. A later nineteenth century photograph of the Kirkton of Balquhidder shows the kirk and houses on a bare knoll with no trees in sight. There are many substantial remains of iron smelting hearths in the glens, which have consumed large quantities of charcoal. It is probable that timber became scarce for building purposes by the beginning of the eighteenth century. Emerging from the research is a long period of change in the landscape, the population density, and the forms of building, from some time soon after 1600 until the end of the nineteenth century. There were no villages before the eighteenth century, and modern Strathyre and Lochearnhead now overlie the sites of earlier group farm clusters. The centre of the parish has moved away from the Kirkton to the later more nucleated settlements. The 1851 census indicates a large number of craft industries, and combined craft and crofting activities, between the Kirkton and Kingshouse. Gaelic survived as a common language until the end of the century, and the last members of the community familiar with the old Gaelic nomenclature have died out over the last decade. The improving farmers built new farms and substantial lodges in the latter half of the nineteenth century, and there is an array of Victorian farm and villa architecture to be recorded. Field work and local information are revealing the shealing systems and sites, which are rapidly being lost where afforestation takes place in the upper glens. The case for concentrating upon selected parishes with a series of concerted interdisciplinary studies in Scotland becomes very strong. Without this, especially in view of modern planned and economically motivated changes in land use and community structure, the history of the Highlands from the medieval to modern times will be lost. Isolated studies which cannot set the results into context will not give us this history.
KIRK CLOSE EXCAVATION - PERTH. PROGRESS REPORT

In recent years the problem of rescuing archaeological sites in advance of commercial development has become enormous. In 1978, the Scottish Development Department decided to attack the problem by creating the Urban Archaeology Unit. The Unit is conducting excavations in many burghs; most of its resources are being concentrated in Perth which has proved to have a great wealth of well preserved medieval deposits.

The Kirk Close site is in the centre of the medieval town, it encompasses part of the backlands of two burgate plots which would have had a High Street frontage. The work so far has shown that the two plots were divided by a gravel path, and that both areas were used as middens or gardens as well as being the sites of several timber structures.

STRUCTURE 1

This had at least two rooms (A and B), the walls and floors of Room A were resting on a dump of sand and they were therefore raised above Room B. On the surviving evidence the walls of both rooms had been of similar construction - a horizontal sill beam (12 cm wide) resting on a single course of stones (bonded with clay and soil). From the evidence of structures 2 and 3 (see below) it seems likely that a wattle wall had been inserted into each beam. A corner post had been set at the junction of the two rooms. A series of four beams, each founded on a stone sill, corresponded with an internal build-up of trample and sand floors in Room A, and flagstone and gravel floors in Room B. This indicated a long period of occupation and rebuilding. In the latest phase of use a stone-lined oven had been sunk into the paved floor of Room B. The oven was filled with burnt clay, charcoal and large pieces of burnt daub with impressions; the latter may have been the remains of a dome over the oven. Contemporary with the oven on the floor of Room A was some rubble, a paved area and two small
PED 79
STRUCTURE 1

1 metre

N

HEARTH

ROOM A

HEARTH

POT

SAND FLOOR

OVEN

ROOM B
clay-lined hearths. Sunken into the floor was the lower half of a ceramic jug filled with corroded iron.

STRUCTURES 2 AND 3

The area is still being excavated and is not yet fully understood, however certain details of construction are clear. The walls were of wattle and both the long north-south walls had been set into a timber sill; one of which is oak (12 cm x 18 cm) and is squared, the other possibly a birch log (8 - 10 cm diameter) had been trimmed to leave very little bark. Into each a series of circular holes 4 cms diameter at 25 cms centres had been drilled with upright stakes slotted into the holes. These, with the horizontal withies, survived to a height of 0.10 cm. The surviving east-west walls were wattle; the foundations of these have not yet been uncovered. Two of the walls had been covered with a clay cladding. Floors were of sand or clay. A wattle-lined pit had been dug into the floor of structure 3. The withies ran from east to west across the sides and base of the pit and were woven around the north-south posts (0.03 cm to 0.15 cm in diameter). A layer of heather had been placed over the wattle. The use of the pit has not yet been determined.

STRUCTURE 4

This is still under excavation and is very similar to structure 2 and 3, however on its sand floor were two hearth areas with spreads of charcoal and wood chips.

The finds from the site have included quantities of medieval pottery, animal and fish bones, metalwork, shell, worked bone etc. The less commonly found organic material is very well preserved and there are many fragments of textiles, leather garments and shoes, as well as four wooden bowls. Several lengths of rope (made of plaited plant fibres) and fragments of stone roofing flags approximately 40 cms long, up to 30 cms wide and 2 cms thick with peg holes at the top have also been found.
I would like to thank Dr. Hilary Murray who will be writing the final report on the structures, and the Assistant Director on the site Mr. R.M. Spearman for their help in compiling these notes. Members of SVBWG will be very welcome to come and visit any of the sites being dug in Perth by the Urban Archaeology Unit.
Bruce Walker

SOME CONTEMPORARY OBSERVATIONS ON EARLY NINETEENTH CENTURY VERNACULAR BUILDINGS IN EAST CENTRAL SCOTLAND AND SOUTH EASTERN NORWAY

Studies comparing the buildings of Scotland with those of the Scandinavian Countries normally concentrate on Norse Building survivals in Shetland, Orkney and the Hebrides (1). Observations by Samuel Laing (2), a Lothians farmer, who stayed in Norway from July 1834 to April 1836, compare the buildings of east central Scotland, with south east Norway. The Norwegian farms were generally smaller, the ground less fertile, and placed further from good markets, but made a better subject for comparison than did the traditionally richer countries of England, Denmark, France and Holland.

There is an obvious danger in taking material from a single source, as it is open to prejudice but Laing's observations on the Scottish buildings are substantiated by other contemporary accounts, and from this there seems little reason to doubt his descriptions of Norwegian buildings.

In the area round Lillehammer, Opland, Laing commented on the range of farm size "many so large that a bell was used, as in Scotland, to call the labourers to and from their work" (3).

"Some are so small as to have only a few sheaves of corn, or a rig or two of potatoes, scattered among the trunks of the trees. These appear occupied by the farm servants, or cottars, of the main farm, paying probably in work for their houses and lands, as in Scotland. Very good houses these are: loghouses of four rooms, and all with glass windows. The light does not come down the chimney, or through a hole in the wall shut up at night with an old hat, or a pair of old breeches, as in some cottages in the county of Edinburgh" (4).

Laing was not exaggerating in his description of the poor quality of cottar houses in Midlothian. It was only from about 1810 that the farmhouses of the Lothians were improved (5) and the cottar houses would take a considerable time after that. Similar situations were recorded in Angus and Fife (6). A letter
to the editor of the Dundee Advertiser in December 1845 describes a farm servants' dwelling in Angus.

"It was built of turf and whinstones, and placed near the foot of a swarde hill that ascends to the first range of the Grampians. To prevent the water, which often pours in torrents from the rising grounds, from doing irreparable damage to the fail "biggin" a ditch was dug around it with proper water courses for carrying away the speat in rainy seasons. Had the mountain torrents been the only water with which the inmates were pestered, my belief is they would have considered that their lives had fallen in pleasant places; but unhappily for them, they had the underground water, or the water which sprang out from the floor to contend with. In order to carry it off, a drain of three or four inches deep was dug around the inside of the house, with angles, offsets, and crossing below beds, chests and tables all centering at a cut below the door by which the water found its way to the outside and thence to the bottom of the hill. The floor and the hill were not the only quarters from which the inhabitants were troubled with a superfluous supply of water - the roof likewise lent its aid in keeping them cool. The water that descended through it was of such a colour that novices might have taken it for excellent brandy;.... Whenever a heavy shower of rain fell, a liquor of the above mentioned colour, for hours after it faired, kept dropping from the thatch and divots with which the roof was partially covered;.... So attentive was the farmer to the proper ventilation of this "biggin" that I have frequently seen it stand for months after a hurricane that swept away a considerable portion of the thatch, without the slightest attempt being made by him to repair the ravages done by the storm. The houses now inhabited by married farm servants present in general a better appearance externally than they did at the times about which I write, but as yet they are anything but comfortable inside. Turf and thatch have in most instances given place to stone and grey slates... few of them are either ceiled (*), plastered, lofted or have anything in the shape of joiner work except the outer door and the windows, in frosty weather the cold is keenly felt by the inmates. To make up as far as possible for the want of partitions, the inhabitants arrange their furniture so as to procure the greatest possible degree of warmth: and were it not for the uncertain tenure by which they retain their holdings, my belief is that they would, at their own expense, render them more comfortable, as the necessary improvements could be made at the cost of a few shillings. ...

* This explains the rough boarded ceilings often found in single storey houses from this period as they were possibly erected by the tenant at time of entry or as it became the accepted standard later in the century.
One of the first houses Laing stayed in was in Laurgaard, he describes it as follows:

"The room I occupy here is detached from the family house of the farm. It consists of four walls, each composed of ten logs roughly squared with the axe, and the edges chipped off, so as to make them octagonal. They are laid one upon the other, with a layer of moss between each, which keeps the interstices quite tight. The logs forming the side walls are notched above and below, and those forming the gable walls so as to correspond; thus the head of each log touches the one below it at the corners, which are as tight and strong as any part of the building. Each log may be twelve inches square; so that the walls of my apartment are a foot thick, and ten feet high. The soles and sides of the windows and the corners are lined with boards; and in good houses the whole, I understand, is boarded or panelled inside and out: but I am in one of the dwellings of the middle or labouring class. There are three latticed windows in the room, which is eighteen feet square, and has sixteen panes of coarse glass in each window. The floor and ceiling are boarded; the former, raised from the earth by a stone wall a foot or two high, according to the level, and roughcast with lime. The roof has a pitch of about two feet; it is closely boarded over on the outside; and the boards there are coated with birch bark, peeled off in large flakes. Above this is laid earth, about three inches deep, retained by a ledge of the same depth along the bottom of the roof. A crop of grass or of moss, growing on this earth, makes it compact. Many houses are roofed with tiles, and some with slates. The joiner work in the window frames, doors, floors, etc. is very rough and ill finished, but all is wind and water tight... It is very different... from the wooden tenement of the English labourer which is but the skin of a house, having only the boarding outside and inside, upon a hollow framework, without the solid log in the middle between him and the cold.

The number of houses about one steading is wonderful: I have counted eighteen. There is a distinct one for everything so as, in case of fire, not to have all under one roof. The family has a dwelling house, consisting in ordinary farms, of three rooms below, one of which is the kitchen, and the same above: and at the end, with a separate entry. There is generally a better room, and one above reserved for strangers. Opposite to this dwelling is another, with rooms above, and kitchen below, for the farm servants and labourers. At a small distance from the family house, raised upon posts to exclude rats, is the sanctum - the gudewifes store-room and dairy, where the provisions for the year are lodged. It is large and airy with windows, and with at least two rooms for different objects. The rest of the square, consists of stables, cowhouses, barns for hay and corn, under which are generally
the sheds for tools, carts, sledges, a cellar underground for ale, and one of large size with double doors, like our ice houses, for preserving potatoes. Everything is under cover, and the spaciousness of the offices surprises one accustomed to our crowded narrow stables and cow houses. The Norwegians are well lodged people, as far as I have seen; the poorest dwelling having good glass windows, separate rooms, and some sort of outbuilding, with conveniences of which I doubt if every house in Scotland can boast (8).

Of the surrounding district Laing comments

"The district resembles much one of the small highland estates in the north of Scotland, with a great number of small tenants or cottars scattered over it. It wants, however, the laird's mansion and farm, with the squalor and wretchedness of the turf built hovels of our highlands" (9).

He goes on to comment at length on the better soil in Scotland but better housing in Norway, describing them as highland peasants without the highland laird, praising peasant ownership and the lack of rents (10).

"The pesantry of a large proportion of Great Britain and Ireland, live in dark one-room hovels in which not only household comfort and cleanliness are out of the question, but the proper separation of the sexes can scarcely be maintained" (11).

"The sense of comfort cleanliness, and order in domestic concerns, appears to be more generally developed among the working classes in Norway than in Scotland. The wooden floors and side walls, the abundance of glass windows in the meanest habitations, and the outside store rooms and accommodations distinct from the dwelling apartments, keeps the inmates, especially the females, and their habits of living in a much more cleanly and orderly state than it is possible for those of the same class in Scotland to enjoy, with their earthen floors and roofs, and side walls, their single pane of glass window, their single room for all ages and sexes to cook and eat and sleep in, and to hold all the clothes and stores of the family" (12).

"In building houses in Norway, timber is used of a size far exceeding the dimensions we generally suppose its trees to attain. There is a log in this old house [in Saeberg] which is three feet on each square side, and retains that size for at least twenty five feet in length. In all the houses, especially those of very old date, the logs are as large as the Memel or American timber usually brought to England. I understand that the impediments in the rivers prevent the floating down of such lengths of great timber to the coast. The vessels also, are too small for such
pieces which it is customary to use in building" (13).

In Norway..."the rooms are so large as to be in general well aired, and so equally warmed by the stoves that one feels comfortable in any corner; and the log upon log make such tight dry walls that currents and draughts of wind and damp are never felt" (14).

"The most expensive article in every room is the stove or kakle-oven, which, although only of cast iron, and very rudely formed, costs about twenty dollars. It is in universal use, the open chimney being now confined to the Fjelde border" (15).

The house of a Fjelde border is described as

"clean, with two rooms, wooden floors, glass windows, a cellar, and with cattle houses apart from the dwelling house.... Our beds were composed of birch leaves and branches, with reindeer skins for bed clothes; and the chimney, for they had no stoves, contained a blazing crackling fire, by no means unpleasant, even in July" (16).

The roof construction used appears to have been wasteful of material.

"The finest birches are stripped of the bark, and left to rot. The bark is called NAVER... and used all over Norway beneath slates, tiles, earth or whatever may be the exterior covering of the roof, to prevent the wood beneath from rotting. All posts which are in contact with the earth... are always carefully wrapped round with flakes of birch bark, for a few inches above and below the ground" (17).

"The floors of rooms in Norway, and, I believe, in Sweden also, are, at least once a week, strewed over with the green tops of the fir or juniper. On a white well scoured deal floor, the lively green specks have a pretty effect. The use is the same as that of the yellow sand, with which our housewives sprinkle their floors. It prevents the mud on the shoes from adhering to and soiling the wood. The gathering and selling of these green juniper buds is a sort of trade for old people about the towns, just as selling yellow sand is with us..." (18).

Laing goes on to describe a farm in the Dovre Fjell, Opland occupied by a Scots farmer.

"This farm supports twenty cows, seven horses, and a score or two of sheep and goats. The accommodation for the cattle is excellent. They stand in a single row in the middle of a wide house, with partitions between each, and room before and behind greater than is occupied by the animal itself. The cowhouse is lighted by good glass windows on each side. The cattle stand on a wooden floor, below which is a vault, into which the dung is swept by a
grated opening at the end of each stall. One woman here will keep twenty or twenty-five head of cattle quite clean, instead of its requiring six hours work of two men, as in cleaning out our ill constructed byres. All the cowhouses in Norway are on this roomy, convenient scale, built over a vault and with wooden floors; so that the animals both cows and horses, require no litter; having the dry clean boards, instead of damp stones or earth beneath them. In this, and in all large farms, the water is brought by pipes, or there is a pump in the cowhouse; and the woman who attends the cows sleeps in the corner of it" (19).

Compare this description with Scots byres of even an early twentieth century date where the cattle are in pairs between trevises, tied with their head to the wall forcing the cattleman to squeeze between the two beasts to reach the feed trough with both food and water and where the dung produced has to be removed with a barrow to the midden.

Returning to Laing's description.

"As to the dwelling houses on such estates, the materials for building is so easily obtained, that there is really no difference between the residence of a public functionary, of a clergyman, of a gentleman of large property, and that of a bonde or peasant proprietor. The latter are as well as commodiously, and even showily lodged as the former can be, and the properties upon which they dwell are good...

The Norwegians are, beyond a doubt, the most generally well lodged people in Europe; but none magnificently.

Many farmers in Scotland paying from £300 to £500 sterling of rent, have worse accommodations for themselves, their cattle, and their crops, than people here whose estates could be purchased for £500" (20).

In a later chapter when presenting the advantages of emigration to Norway rather than to America or Canada, Laing describes the type of buildings on a farm which could be bought for £1,200 sterling or less.

"A piece of ground, cleared of wood, inclosed and long under cultivation, with space behind of half cleared for outfield pasture, and capable of improvement with excellent log houses upon it, two stories high, weather boarded outside, lined inside, and with two goodly rows of cheerful windows; and ... surrounded with barns, stable, cowhouses, and every sort of accommodation for crop and cattle, on such a clean and roomy scale, that the cow is better lodged than the cow's mistress is on many farms in the north of Scotland" (21).
"In the dwellings generally of the labouring class, the squalor, dampness and total want of accommodation and comfort of the sod built hovels which disgrace the face of the earth of Scotland and Ireland, are unknown. The meanest habitation has wooden floors, windows, apartments for the family to sleep in, besides their sitting room; also fit places for keeping their food. It is highly characteristic of Scotland that within site of its Parthenon, human dens may be found in which whole families... are lodged under one roof, without other division into apartments for the decent separation of the sexes than is made by a wooden bedstead placed in the middle, without other floor than the raw earth; the walls of sods and stones, not lined with wood inside; the roof a mass of damp rotten straw and decayed vegetable substances, supported by a few sooty rafters; the windows a pane or two of glass stuck in a hole in the thatch or wall; the family provisions of meal, salt meat, herrings, milk, butter, all huddle together in a single room, in which all the wet stockings and sweaty shirts are fuming and drying, and all the exhalations of the crowded inmates, cooking, eating and sleeping are poisoning the atmosphere" (22)

Bothys were used in Norway as they were in Scotland but goes on to say that the Scottish "bothy" is so inferior to the Norwegian "bortstue" that it would make Scottish gentlemen blush were they to see them (23). The Norwegian bortstue -

"is usually a separate house detached from the main one, and better - I speak on the authority of Scotch farm servants bred in Aberdeenshire and the Mearns - than the dwelling houses of many respectable farmers paying considerable rents in that part of Scotland. It consists of one large well-lighted room with four windows, a good stove on fireplace, a wooden floor, with benches, chairs and a table. At the end is a kitchen, in which, their victuals are cooked by a servant whose business it is to attend the bortstue and cook for the people. The space above is divided into bedrooms, each with a window, and the doors lead to a kind of covered gallery, open at the side, such as we still see in some of the old inns in London; and in this gallery the bed clothes are hung out daily, whatever the weather. The whole house is washed every Saturday, the floors sprinkled... with green sprigs; and in every respect, excepting an article or two of furnishing, these rooms are as good, and are as warm, clean and cheerful, as those in the main house. In this large room, the people sit and take their meals, and the tailor, shoemaker, harness maker and such tradesmen as go round from farm to farm, execute their work" (24)

When the above description is compared with a letter on harvest workers'bothys in Angus published in the Dundee Advertiser, 1845, the contrast is startling.
"Sir ... The sleeping apartments of shearers in the Carse of Gowrie are no doubt incommodious enough; but ... the places appropriated to the same purpose in the Braes of Angus ... about fifteen years ago ... are given as a specimen ... At a farm within the sound of the Linns of Noran, the farmhouse was covered with blue slates, and presented a handsome and elegant appearance ... the steading, even the piggeries, were snuggly covered with the same material ... The shearers' bothy ... formed part of a range of ruined cow byres, the remnant of the thatch being in such a state as rendered the "biggin" neither wind nor water tight. As the weather was cold, I found the shearers couring around a fire near the middle of the byre appropriated to them. The place was filled with a stifling smoke, as it had no place of egress, except holes in the thatch, and one in the side of one of the walls through which the dung of the cattle was thrown when the byre was tenanted by these animals ... The "rickle" was built of turf and stones. While inhabited by the cows, the building had been kept in something like repair, but after it had been converted into the shearers' "bothy" little or no attention had been paid to the roof ... Windows there were none ... The furniture was suited to the place - a few stools and forms ... a few of the shearers were seated on large boulder stones. These with a large pot and "lang-handed ladle" were the only articles of furniture for the decoration of this dwelling, or the convenience of its inmates" (25).

The description continues to say that this situation was by no means uncommon, he then describes a hen house converted to a bothy between Brechin and Montrose and housing half a dozen men. At the other end of the social scale the Norwegian gentry were considered by Laing as being "primitive in their picturesque household ways ... The family room is what we may fancy the hall to have been in an English manor house in Queen Elizabeth's days. The floor is sprinkled with fresh bright green leaves which have a lively effect; everything is clean and shining; an eight day clock stands in one corner, a cupboard in the other; benches and straight-backed wooden chairs ranged round the room; and all the family occupations are going on, and exhibit curious and interesting contrasts of ancient manners, with modern refinement, and even elegance ... The breakfast is laid out on a tray at one end of this room, which is usually spacious, occupying the breadth of the house, and lighted from both sides ..." (26).

"The following description of an estate is taken without selection from the advertisements in the daily newspaper, the Morgen Bland, of property to be sold. It will also serve to describe the usual accommodations and buildings on such small estates in this country" (27).
"A two storey dwelling house, with seven apartments of which two are painted. A large kitchen, hall, and room for hanging clothes, and two cellars. There is a side building of one storey, containing servant's room, brewing kitchen, calendar room, chaise-house, and wood house. A two storey house on pillars with a pantry and store room. The farm buildings consist of a threshing barn, and barns for hay, straw, and chaff; a stable for five horses; a cattle house for eight cows, with divisions for calves and sheep. There is a good kitchen garden, and a good fishery, and also a considerable wood, supplying timber for house building, for fences, and for fuel, besides the right of cutting wood in the common forest. The seater, or hill pasture, is only half a mile (that is 3\(\frac{1}{2}\) English miles) from the farm. The arable land extends to the sowing of eight barrels of grain, and twenty five or thirty of potatoes (the barrel is half a quarter), besides the land for hay; and the farm can keep within itself, summer and winter, two horses, eight cows, and forty sheep and goats. There is also a houseman's farm and houses. It keeps two cows, six sheep, and has arable land to the sowing of one and a half barrels of grain and six barrels of potatoes..." (28).

Laing's own farm in Norway was situated at Skogen, Verdal, Nord Trøndelag and comprised

"... dwelling house divided below into a small lobby, kitchen and store closet; one good and large room of the breadth of the house with four windows, and a small bedroom with two windows adjoining to it. The upper storey is divided into three apartments. This is below average of accommodation on such properties in this part of Norway. The servants house or bortstue, consists of a good sitting room with three windows, a kitchen, adjoining, and the upper storey divided into sleeping apartments. Between these two houses is the appendage to all Norwegian dwellings - the store room on pillars, with its steps, detached from the building. It consists of two rooms, one above the other. A four horse stable and a sheep house, with hay loft above to which there is a wooden bridge that admits the horse and load of hay into the loft itself; and a cow house for twelve cows, with a similar loft and bridge. These bridges are formed of spars from the ground to the door of the loft, laid with as small a slope as the ground will admit" (29).

The poorest hut seen by Laing in Norway was at Straadal, Verdal, Nord Trøndelag. A hundred yards from the Swedish border.

"The farmer had but lately settled on the spot and was living in a newly erected hut. It was a mere cabin in size, the poorest hut I have seen in Norway; but had its wooden floor, glass window, and chimney and was quite clean. His cattle were much more magnificently lodged. He was building a very large house for them, with a hay loft over it, of logs of wood..." (30).
Laing also gives a good description of horizontal water mills in the area round Laurgaard (31). Buildings of the types described by Laing can be seen in various books on Norwegian buildings available in English (32).

The descriptions given in this paper illustrate that even with the advantage of good soil, bigger markets, and larger farm units, Scotland still lagged behind in building terms. This seems mainly due to the system of land tenure - the short leases in Scotland working against the construction of substantial buildings whereas the peasant landowners of Norway with no rent to find, and security of tenure were prepared to put profits into buildings that were designed to last. It also explains the lack of truly vernacular or semi-vernacular buildings at the lower end and middle of the social scale in Scotland. The surviving rural buildings are the result of the landowners taking it upon themselves to provide improved accommodation for tenants and their stock. The buildings erected during this improvement were either designed by architects or result from factors using architectural pattern books. Other buildings were erected during this period but mainly by tradesmen, who, although outwith the control of the landowners, were conversant with estate building practice and therefore their buildings tend to reflect the standard designs. Most surviving buildings tend to be erected to the same basic designs resulting in a narrow vernacular threshold. The position is different in the Highlands and Islands of Scotland as there, the funds were not available, the land not rich enough, and the markets too distant to support this mass improvement in building terms and there, the vernacular forms tend to be adapted rather than replaced. A similar situation seems to exist in Ireland where the vernacular threshold is fairly extensive.

The result of the landowners control over building in the Lowlands of Scotland during the nineteenth century was to produce a substantial but basically utilitarian architecture on all but a few "mains" farms, whereas the Norwegians tended to embellish the important buildings on each holding. The
vernacular side of Scottish lowland buildings tends to be restricted to self built implement sheds, hay and straw barns and outhouses erected as extensions to the basic unit provided by the landlord, and later in date. All the earlier structures were replaced during the landowner's building operations, or have since fallen into decay being constructed of fairly flimsy materials which would require regular maintenance.

Notes


2) LAING, Samuel: 1851: Journal of a Residence in Norway during the years 1834, 1835 and 1836... London.

3) Ibid. 21.

4) Ibid. 21 - 22.


6) Ibid. IX. 474 and 319.


8) LAING, S.: 1851: op. cit. 28-29.

9) Ibid. 32.

10) Ibid. 32 - 33.

11) Ibid. 35.

12) Ibid. 47.

13) Ibid. 48.

14) Ibid. 197

15) Ibid. 203
16) Ibid. 220
17) Ibid. 223
18) Ibid. 60
19) Ibid. 71
20) Ibid. 72 - 73
21) Ibid. 180
22) Ibid. 187
23) Ibid. 191
24) Ibid. 191 - 192.
25) AN OLD PACKMAN: 1845: Harvest Usages of Modern Times
Dundee Perth and Cupar Advertiser. Tuesday, September 30. 1845.
27) Ibid. 195 -
28) Ibid. 195
29) Ibid. 200 - 201
30) Ibid. 221
31) Ibid. 40 - 42.
Oslo. 12 - 14.


This study was commissioned in order to examine traditional farm buildings as a major aspect of the "regional identity" of Grampian Region. Clearly laid out, and illustrated with attractive drawings and location maps, it outlines the method of approach in the field, the supplementary sources available in archives and estate offices and in print, and the historical development of farm buildings, as well as presenting the detailed results. A full set of references gives a guide to further reading.

This is the first time that regional farm buildings have been subjected to such detailed examination. The results have brought to light much fresh knowledge and we now have a pattern for future work in other areas. Such surveying is an urgent task; in fifty years' time the great majority of the farm-buildings we know will be no more, and even if farming progress cannot and should not be halted, nevertheless a record should be kept, and selected examples preserved as three-dimensional history for the future.


Peter Robinson's work, subject of a R.I.A.S. Thomas Ross Award, is divided into 16 essays which explore three main aspects of the subject: the medieval tradition of flats with its roots in feudalism and burgh privilege; the part played by the tenement in middle-class and industrial expansion after 1770; and the factors of organisation, architecture and decay of tenements. The main areas dealt with are Edinburgh and Glasgow.

In Scotland, the term "tenement" is applied to a building constructed or adapted to be let in self-contained portions to a number of tenants, typically 8 to 16, with a common access from the street. In earlier times it applied to the piece of land on which the building stood, as well as to the building itself. The origins of the tenement are related inter alia to the physical form of the medieval burghs, so that height was seen as an answer to population density, and vertical social stratification followed, with merchants on the ground floor, well-to-do on the first floor, and an increasing degree of poverty on the way up to the attic.

One of the features that can scarcely be guessed from the present-day state of tenements is the amount of timber formerly added to them in the form of galleries at the front. This, along with thatched roofs, meant a high fire risk in tightly-
packed building clusters, though at the same time giving an altogether more medieval cast to the towns, and narrowing their streets considerably. By the end of the 17th century clearance of such galleries was well in train, and encouragement was being given to their replacement in stone. Nevertheless some of the old timber fronted lands survived well into the 19th century.

The crowded, noisy, dirty, smelly nature of the closes and streets in these housing concentrations was a matter of frequent comment by visitors. Fever and sickness were rife, and were constant risks. Rooms were often as crowded with people as the towns were crowded with houses. The demand for better standards grew strong after the Union of 1707 and new building developments took place, marked by, for example, Milne's Court (1690) and Chessell's Court (1740s), in Edinburgh. These developments extended rapidly with middle-class and industrial expansion far beyond the old bounds, for example into the New Town of Edinburgh, the Craig New Town in Glasgow, etc. This Georgian spread, including the Georgian terraces, still gives much character to Scottish towns and cities, and later came the products of numerous housing associations, generally on a somewhat smaller scale but still preserving the multiple-unit flat approach. Working-class tenement houses outside the old town cores were also erected in the 19th century. In these later tenements, social class tended to dictate the density of occupation on each floor. Mr. Robinson also looks at parallels in England and elsewhere in Europe.


This is the first of a projected series of occasional publications intended to bring current writings on buildings up-to-date. It supplements the Vernacular Architecture Group's Bibliography on Vernacular Architecture (ed. R. de Zouche Hall, 1972), and in its arrangement follows the same scheme. Additionally, entries have been numbered to facilitate cross-referencing. There are three indexes: on periodicals, serial publications, Festchrfarten and collected essays; on authors; and on places. These add to the usefulness and usableness of the Bibliography. There are 600 entries in this issue.

Completeness in this kind of work is hard to achieve without teamwork, and there is here an opportunity for members of the Scottish Vernacular Buildings Working Group to assemble sources that can in turn be absorbed as appropriate into the VAG Bibliographies.

The field covered by this study includes Denmark, the Netherlands, Germany, the Benelux countries, Britain and Ireland, Italy, France, and the Iberian peninsula. Quantitatively the bulk of the evidence stems from the 19th century; it becomes increasingly rarer in moving back to the 15th and 16th centuries. Methodologically, rural buildings are seen as the product of changing needs and preceding traditions, and differing in different localities. Since change also means loss, it has to be accepted that parts of the evidence have gone irretrievably which makes difficult the construction of a general theory of European housing. The amount of research done in each of the countries also varies in intensity. Nevertheless, Mme Gaillard-Bans has here made a courageous attempt at an overview.

In her first chapter, she outlines a typological sketch. Only the very largest farming units can be said to be anything like self-contained. Smaller ones had facilities for immediate needs and other aspects - mill, smithy etc. - were shared; here, village groupings were of importance and so deserve close study.

In terms of structure, there are the "primitive" forms: excavated or natural cavities, dry-stone constructions, and various kinds of huts, all with prehistoric antecedents. Cave-dwellings are found in the southern half of Europe, the valley of the Seine at Andalusia, in France, Italy and the Iberian Peninsula. Dry-stone marks north-west Europe, Ireland, Wales, Brittany, parts of Central France, Southern France, Switzerland, Spain, Portugal, Italy. "Huts" are or were found everywhere, marking seasonal or temporary activities (fishing, forest work etc.), as parts of more permanent units, or as homes for the poorer people. By their nature, they are ephemeral.

She then looks at the longhouse, accommodating men and animals, and other units (stable, barn etc.) as necessary, and touches on the problem of definition. There appear to be three sub-families: (1) the most northerly, covering much of northern Europe, has largely disappeared. This is the "deepened longhouse", with sideways extensions that lie along the main axis. (2) the "purest" form, corresponding to the narrow longhouse of central Europe, is found in the north and west of Britain, in Ireland, and sporadically in parts of France from the Paris Basin, to the Mediterranean. (3) A southern form with a shallow-pitched roof that also allowed sideways extension. The longhouse is lacking in east, central and south Germany, Austria and much of Switzerland.

The "block-house" (Hallenhous) or basilica house groups all its functions under one roof, as in north Germany and Holland, and may be marked by its height, allowing for living accommodation above and stock-housing etc. below. Examples with enclosed courtyards also occur, mainly in the rich cereal-producing and wine-growing plains.
The second chapter examines longhouses and "block-houses" with a basilical plan in more detail, and in relation to their distribution. In the Scottish Highlands and Islands, Wales, Ireland and Cornwall, the longhouse is seen as marking a medieval or even older tradition surviving to the dawn of the 20th century. It appears to relate primarily to poorer, less-productive areas, whichever of the sub-families is involved, and whether or not the construction is broad, or narrow (often with crucks). Features commented on are access in the facade or in a gable wall (the latter a medieval concept), ridgeless roofs that enforce an oval shape to the building, roofs over non load-bearing walls (e.g. built half into a slope), and the disposition of the furniture and placing of the hearth.

Basilical houses have as a base plan a central nave at the end of which is the hearth, with side elements containing the stock etc. The space is more carefully structured than in the longhouse. The origins of the form are uncertain, but the scale of building demands a prosperous peasantry and they must derive from periods of economic expansion in the areas of their occurrence, whether or not they are reflections of earlier monastic or manorial barns. The basilical form is attested in Europe from the 16th century.

The final chapter deals with cruck-constructions, which Mme. Gaillard-Bans thinks may stem from the "roof house" with non load-bearing walls. The cruck legs allow the weight of the roof to be carried to the ground, and are as a rule curved. The origins have been much discussed, attention also being paid to areas of non-occurrence, but conclusions must await more detailed knowledge of present and past distributions. In north Germany, crucks have almost become mere memories. In Britain they are or have been almost ubiquitous, but not, seemingly in Orkney or Shetland, and only in the extreme west of Ireland. The distribution in Europe, especially in relation to barns, is discussed.

The book is well illustrated with photographs, sketches and plans, and includes a useful bibliography.


A 258 page journal containing 22 articles, many of which exemplify further the points made by Mme P. Gaillard-Bans in her book, reviewed above. She and her husband J.-C. Bans, discuss French crucks and the problems of interpretation posed by them in relation to rural structures in Europe, and provide a provisional map (page 23) giving the distribution of crucks in western Europe. Dry-stone buildings are examined by several contributors, as well as huts for roadmen and others (some of them of beehive construction). The articles include much bibliographical data.

A study of cruck barns in the Limousin area, which extends the comments on cruck-constructions made by the author's wife in the book reviewed above. In Limousin the cruck is usually called "courbe", or in the local speech, "couble", curve. Crucks are very rare in north France, but in some areas, like the Department of the Correze, concentrations occur. There, of 125 examples noted, 115 are in barns-cum-stables, with the cruck-legs positioned in stone walls. Some oval buildings had unpaired end-crucks (cf. examples at Auchindrain etc in Argyll) locally called "copros" or 'copas'. Barns that could be dated or that had dates on them lay in the 16th to 18th centuries, though the author considers that five-sixths of the survivals are from the latter half of the 18th century.


Peter Michelsen's book on dating farmhouses, though relating to Denmark, nevertheless has general significance. He makes it clear that "age" is a loose concept. If there is a date on a building that is one thing, but its interpretation may be quite different. It may be taken over from an earlier building, or a building may have more than one date on it, indicating building phases; or a piece of timber with a date, from somewhere else entirely, may have been used. Written sources may be used to confirm or refute dates. Maps may also be used, but it does not follow that a building marked on an early map is the one that stands there later. Oral tradition must be treated with care, because there is a universal tendency to run events together in reminiscences. In some cases the science of dendrochronology may be applied, though this dates the timber only, and not the house.

All of these possibilities must be used to complement each other and must themselves be related to experience gained from comparative study of existing buildings. Dating is far from absolute. It has to be looked at regionally, for building fashions linger longer or die out faster in different areas. Factors decisive for dating in one area cannot always be used in another. Dating, therefore, is often a matter of relative chronology, and certain, absolute dates are matters of luck.

This small volume is a valuable exercise in source criticism.
This special edition of Historical and Art Monuments (the Museums and Monuments Review) is devoted entirely to aspects of vernacular architecture. D. Georgeta Stoica writes about the "Investigation, Preservation and Integration of Vernacular Monuments and Architectural Piles in Rumania". She outlines the progress in concern for such buildings over the last century, including legislation from 1944. Considerable efforts are currently being made to inventorise the heritage of vernacular buildings, and to publish the results. Methods of preservation either in situ or in open-air museums are discussed. Adrian Gheorghiu's subject is "Ensembles d'Architecture Populaire Roumaine". Helped by photographs and sketches, he concentrates on architecture, as created by individuals or collectively along traditional lines, ie in village groupings. The interaction of the individual on the ensemble and vice versa is his theme.

Max Gschwend from Switzerland discusses "L'Architecture Vernaculaire : Possibilités et Moyens d'Intégration dans l'Environnement des Constructions Contemporaines". The traditional farms, shaped for living and working in their particular environments, are often attractively adorned by the craftsmen who built them. Following their 18th century high point of development, they are often falling empty or being turned into storage places or garages, or being demolished by buildings in modern materials. The Swiss League for the Preservation of the National Patrimony and public services with the same aim are taking measures to restore and preserve buildings, of which examples are cited. The role of holiday homes and buildings bought and modified by foreigners is also looked at, and of architects whose drawing-board activities ignore the environment. Of a more general nature is Haluk Sezgin's "L'Architecture Vernaculaire et les Problèmes qu'elle présente devant les Conditions de la Vie Moderne". He begins by looking at the definition of vernacular architecture as a creation of the ordinary people on the basis of traditional materials, techniques and ideas, dividing it into primitive (owner built)-, indigenous (craftsmen built with the aid of the owner)-, and architect-built architecture. He reckons that only 8% of the world's buildings are architect made, however, preindustrial types of structures persist in many areas, though usually in preserved or downgraded form. Like Gschwend, he is concerned with the integration of new building forms in vernacular areas. Similarly, Panu Kaila is concerned with the "Crisis and Solutions in Finish Vernacular Architecture" in relation to new kinds of building materials, urbanisation and industrialisation.

Paul Petrescu takes a specific topic, a "Romanian Variant of an Age-old European Form of Vernacular Architecture: the Farmstead with Fortified Enclosure", a type once widespread, especially in the great plain form the north and centre of Russia to Germany, Denmark and Holland, and in the area comprising the Carpathians, the Alps, the Midi, the Iberian Peninsula and Italy.
The primary elements are the presence of the dwelling-house in the enclosure, the capability of being closed off (in a more or less defensive way), an interior courtyard, and the form which can vary from rectangular to irregular polygonal. A number of Rumanian examples are described. Of a rather grander nature are the "Fortifications Populaires du Moyen Age" which Vasile Dragut describes for Rumania, also as a form of vernacular architecture, since they are a response to the need for defence in rural environments. They start with entrenchments in the 12th century and run on to fortified churches of the 17th century in Moldavia, and fortified houses in Wallachia and Oltenia in the 18th century.

Eric Mercer outlines the "Study of Vernacular Architecture in England", tracing interest in the subject back to the late 18th century. Andras Roman examines the "Definition du Champ National des Monuments Populaires" in Hungary, according to social class and the means of construction. He shows how the Hungarian peasant house has a functional character, reflecting the manner of life as well as certain traditions, and contrasts it with urban houses. Mikai Ispir's subject is "Aspects de l'Architecture Vernaculaire en Moldavie au Debut de l'Epoque Moderne", with special reference to the country manor houses and the highway inns that spread in Moldavia in the late 18th and early 19th centuries. D. St. Pavlovitch writes about "Le Parc Ethnographique - le Marais d'Obed" in Jugoslavia, by the Institute for the Protection of Historical Monuments, with a special emphasis on the place of timber in popular constructions. This work began as recently as 1978. Of much interest for mill specialists is Cornel Bucur's detailed discussion of a "Valuable Complex of Vernacular Architecture: The Bucket Mills on the Rudaria Waters", in the Almaj Valley in the Banat. These are horizontal mills, seen from the technical, historical and environmental points of view.

Archaeological data is dealt with by Dinu Antonescu, "Sur Certain Aspects de l'Architecture Geto-Dace; l'Ensemble de Popești". The Popești group of buildings, marking a Geto-Dacian settlement, dates to the end of the 2nd and beginning of the 1st century BC. It is fortified, and built around a main axis on a principle that appears to parallel that of Mycenaean groupings of a millenium earlier. Grigore Ionescu writes about the part played by the architect Lecomte du Nouy in the "Restauration des Monuments Historiques de Roumanie". Finally, Georgeta Stoica, Eric Mercer, and Radu Creţeanu discuss the question of what is vernacular architecture. The volume includes a useful bibliography.


This volume deals with the Old Town of Stockholm, and seeks to provide advice on the right lines for its preservation and rejuvenation. It is now officially a "cultural reserve". In photographs and detailed diagrams it traces the development of the Old Town in its water-ringed triangle from the 13th century onwards, commenting on building materials (wood, stone),
irregular street widths, and changes due to "planning" at different periods.

It is pointed out that each unit of building entails its own particular conservation problems, to some extent related to its date. The characteristics of the multi-floor buildings from 1500, 1630, 1670, 1760 and 1870 are shown diagramatically. Walling and facades are examined, with special attention to openings and decorative details (in ironwork, for example). The foundations and the means of strengthening them, and the causes of damage to the buildings (settling, leaks, rust and rot, impurities in the air, decomposition due to salt etc) are examined. A series of photographic impressions shows the character of the town from the sea, through its squares and open places, its streets, its shop-fronts and signboards, road surfaces, lighting, street-side details, yards, colouring, materials used on the facades, roofs, windows (with a series of dated forms), doors, gateways and window openings, stair wells, cellars, and hoists for getting materials to higher stories.

The individual flats are also looked at in a dated series, and the problems of inserting kitchens, sanitation and other needs of modern living are considered. Ceilings, floors, woodwork (with details of door constructions) and hearths are examined, as well as the effects of refuse disposal requirements, heating systems and fire precautions.

Finally, advice is given on standards of restoration, on how to proceed with such work, on financial matters, and on the essential contacts that have to be made for these purposes.

This is an attractive publication, and even though it has a strong conservation message and serves as a kind of handbook to conservation, it can equally well be used as a first-class handbook to the Old Town.


This report looks at the architecture, furnishings and grounds of ranch houses in southern Alberta, with particular reference to Cottonwoods, said to be the earliest frame house in the area, and dating from the 1890s. Gate Ranch house, built by an Englishman around 1906, are also touched on. The author, having been brought up in Cottonwoods, speaks with inside knowledge.
NOTES ON SURVEYS OF THE NATIONAL REGISTER OF ARCHIVES
(SCOTLAND)

These notes have been adapted from the summaries of surveys printed in the Annual Report of the Keeper of the Records of Scotland. Members are reminded that the collections mentioned are held privately and all further enquiries including applications for access must be made through the Secretary, the National Register of Archives (Scotland), H.M. General Register House, Edinburgh.

The author would be interested to hear of any hitherto unlisted collections known to members and such information should be addressed to the Archivist, University Library, Dundee.

888 (Addit.) Marquess of Linlithgow, Hopetoun House. Estate papers relating to East Lothian, 1768 - 1855, including papers relating to Peaston mill, 1793 - 1829 and new windmill, 1835 and papers and plans relating to farm buildings, 1818 - 1841 and n.d.; plans of Drem village, 1846 - 67, Leadhills village, 1864.

1275 (Addit.) The Duke of Buccleuch, Drumlanrig. Plans and sketches of lands, buildings and roads mainly in Dumfriesshire including estate plans, c. 1740 - 1957; plans of villages of Burnhead, Carronbridge, Durisdeer, Kirkconnel, Sanquhar and Wanlockhead, 1808 - 1851 and Thornhill, 1742 - 1891.

1503 (Addit.) Mr. and Mrs. Jardine, Lower Largo. Architectural drawings of buildings mainly in Fife, especially Lower Largo and the 'Crusoe Property', 1865 - 1958.

1496 Prestongrange Historical Site. Specifications for miners' cottages, 1907.
1562 National Trust for Scotland, Edinburgh. Valuation of materials and work for building house of John Carlyle, mason, Ecclefechan, 1798.

1679 Darley Hay Partnership, Ayr. Drawings and plans of property throughout Ayrshire, 1814 - 1968 including buildings on Fenwick estate, 1884.


1800 P.J. Knowling, Esq., Houston. Photographs of streets, buildings and local groups in Houston, Johnstone and Bridge of Weir, c. 1865 - 1927, including old smithy, Houston, c. 1885.


1847 Strathclyde Regional Archives. Ardgowan estate records. Includes accounts relating to estate improvements, 1837 - 1867, inventories of furniture and effects, c. 1800 - 1921, estate letter books, 1812 - 1919, plans of construction of domestic, agricultural and industrial premises from 18th century; Mearns barony court book, 1730 - 1747.

1907 Francis I.J. Fraser of Tornaveen. Inventories of house on Tillycroy, 1802.
The Cawdor Archive (NRA(S) Inventory 1400) at Cawdor Castle, Nairn, contains a good deal of interest to the student of vernacular architecture. It has been examined during the course of the Countryside Commission for Scotland's "Buildings in the Countryside Survey" and, with Lord Cawdor's kind permission, a number of items have been copied by the National Museum of Antiquities. Photographs of many architectural drawings, with xerox copies of accompanying specifications and estimates, have now been deposited in the Museum's Country Life Archive.

The Cawdor Archive deals with a considerable range of vernacular building types. It contains relevant material dating from the mid-eighteenth century onwards - one early document being an itemised account of 1750 for the building of a feal and diffet (divot) house - with a concentration of early nineteenth century material, and includes papers relating to buildings within the policies of the Castle (gate lodges, a factor's house, a peat house etc.), farmhouses and steadings, manses and inns with their offices, schools, mills and kilns. In the great majority of cases plans are accompanied by specifications and estimates.

The fairly small area in which the documented buildings are located (approximately five parishes in Nairn and eastern Inverness-shire) expedites the tracing of general patterns in the development of the building process on the Cawdor lands. It can be seen, for instance, that until well into the nineteenth century the Estate relied upon the services of local artisans rather than professionally trained architects, in the drawing up of often detailed architectural plans and specifications. John Wilson, a Nairn mason, is the best example of this tendency. His beautifully drawn set of plans for Ardersier Manse and offices (with a kiln), dated 1826, provide ample evidence of his drafting abilities. The manse was one of several documented buildings
for which Wilson provided not only plans and specifications but also his services as a mason.

The Archive also points to the architectural influence of gifted, or not so gifted, amateurs. "Stupid Plans concocted by the Minister", Wilson wrote on a draft sketch for the proposed manse at Ardersier. Other amateurs had to be treated with a great deal more tact. When, in 1835, the Countess of Cawdor produced drawings for the design of Cawdor Inn in a neo-baronial style, her sketches were faithfully transformed into a full set of plans and specifications. The difference in cost between this and a much simpler design were also pointed out to the Earl... and the simpler plans were adopted.

It is interesting, but perhaps not altogether surprising, to note that the types of design suggested by the amateurs - whether Lady Cawdor's several excursions into the Romantic style or the minister of Ardersier's T-plan manse - though rejected at the time by conservative local artisans, were often adopted when the services of professional architects came to be used, the firm of Alexander and William Reid of Inverness and Elgin being that most commonly employed by the Estate. This fact produced a definite co-relation between building type and design. Plans of buildings for which the proprietor was directly responsible - often as a result of his position as sole heritor in several parishes - were being drawn up by professional architects as early as the late 1830's, whereas it was only in the latter half of the century that the Estate assumed responsibility for the bulk of farmhouse and steading work and so came to employ architects to design such buildings. Various consequences of this are to be seen in the Cawdor plans. The adoption of neo-baronial styles for farmbuildings, for instance, lagged a full quarter of a century behind its adoption for such buildings as gatehouses, lodges and schools.

Similar trends are, of course to be found in many other parts of Scotland. The nature and range of documentary material available for the Cawdor lands, however, provides us with a clear, microcosmic view of such developments in one area of the country.
Having read the review notice of the above book in the SVBWG Newsletter, number 5, 1979, we thought it would be useful to give our comments in the light of our background knowledge as French research workers and one time participators in a venture that we can no longer answer for.

The problem is that research in vernacular architecture is generally well advanced in Northern Europe, but not in the romance countries, especially Spain and France. As a result, due to problems of language, even unimportant works from these countries may appear to have novel and valuable elements. In this respect, let us mention, as opposed to Arquitectura Popular Española by Dr. Carlos Flores, the work of a solitary pioneer, L'Architecture Rurale Française, an official enterprise which bears witness to the most deplorable French manias: the operation of prestige and the art of speaking wisely, particularly on subjects in which the author knows nothing.

The basic idea of L'Architecture Rurale Française was to publish architectural drawings made between 1942 and 1944 (for the regions not annexed by Germany, Alsace-Lorraine having been dealt with after the war). According to the "return to the soil" ideology of the Vichy government, it was a question of establishing the environmental personality of the houses of the French provinces. Consequently, architects were forbidden to draw up plans of buildings which could not be considered as "typical". This led, in the majority of French regions, to the supression of evidence prior to the 19th century. What was worse, the survey was carried out by unemployed architects, some of whom did not take their work seriously, however, some others wanting to preserve the memory of ancient and rare buildings, went beyond the absurd instructions given to them.
As a result, the 1759 architectural examples selected were of extremely unequal quality and had no statistical relevance but they have at least the merit of existing as documents (sometimes rare) accessible to researchers. On the other hand, the idea conceived a dozen years ago, of using them for a prestige publication can only be contested, since in the first place, there do not exist in France experts in the study of vernacular architecture and because of this it was necessary to give the management of the publication to a specialist in Black Africa who was convinced of the ethnic and non-historical character of vernacular construction, and secondly, putting the first survey into question was frowned upon. The result is catastrophic, not only for the study of French rural architecture but also for all comparative European research. The old types, which are rare, are generally omitted (cruck-construction, barn-and-byre aisled halls, etc). Besides, the plans are often false or even invented, especially in relation to the roof structures.

We have found in these plans over a hundred gross errors ranging from the suppression of the back door, and the inversion of the pitch of the roof to the presentation of a completely imaginary house, passing through the substitution of a larch wood frame for one really in granite.

But the worst aspect is not the lack of a serious archaeological and historical approach but, that, contrary to what one might suppose outside the French frontiers, there is no question of using the book to inaugurate national research on vernacular construction. Instead its aim is to shut off the subject once and for all, for the last word will be thought to have been said.

Jean-Christian et Patricia Bans