THE PLANNING AND ARCHITECTURE
OF THE SETTLEMENTS OF THE
NORTH-EAST LOWLANDS OF SCOTLAND:
A REGIONAL STUDY

Presented for the Degree of Ph. D.

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INTRODUCTION

The purpose of this study is to make an analysis of the buildings and groups of buildings in the North East Lowlands of Scotland with a view to isolating any regional and local characteristics and explaining their development in the physical, social and economic environment. The North East was chosen as being, on a preliminary broad enquiry, sufficiently coherent and well defined an entity; as this thesis will, it is hoped, subsequently show, the precise limitation of the area to the counties of Moray, Nairn, Banff, Aberdeen and part of Kincardine was justified by further investigation. Well known as a region with firmly entrenched habits and strong local independence, its coherence was borne out by a factual survey.

The study is concerned, not primarily with major works of architecture, with mansions, large churches and so on, or the large group of buildings that make a city, but with the smaller, common buildings - cottages, farm buildings, mills, smithies, parish churches and with villages, hamlets, burghs and farm groups. At the same time, it would be wholly inadequate to examine local buildings without taking into consideration at all major works and major settlements, not only because these will inevitably possess certain local characteristics that may illuminate the character of small buildings but also because they invariably affect considerably the development of small buildings. This is obvious in the social and economic spheres; it may become apparent in the architectural field. This study, therefore, while concentrating on the smaller
buildings and settlements, does include comment on major buildings and settlements where this is obviously significant.

The subject matter also leads to the method of study. The characteristics of everyday building have ultimately a functional origin and are best approached by an investigation of the physical, social and economic background against which they stand in hard relief. The thesis is on the pattern of a regional survey and is derived from the method of Sir Patrick Geddes.

Part I follows the categories of Place, Work and Folk - the Physical, Economic and Social Background. With a view to the explanation of the distribution of settlements some prominence is given to Communications. Part II is a detailed account of the distribution and working of Building Materials; these being highly significant in the development of local architectural style. Part III then deals with the settlements and the buildings themselves; much of the information relevant to this part is in the form of plans and illustrations. The conclusions, both as to the settlements and the character of the buildings, are summarised at the end.

In the main, the period covered by the study is from the beginning of the 18th century to the present day. The reason for this is simple. It is enough work to investigate buildings of which examples can still be seen, without going deeply into archaeological material. For the most part the common buildings of Scotland do not date from much earlier than the beginning of the 18th century; the reasons for this
form part of the study. The pre-18th century agricultural era has, therefore, been summarised. Small buildings of earlier periods are usually found in burghs, and thus in considering burghs, they are included in the study; but they are very few. The great social and economic revolution and the agricultural improvements are the key to much removal of older properties, and to the development of the types to be seen today; it is also the key to this study, and is discussed in some detail.

Nearly all the photographs are the fruit of prolonged field investigations. The surveys and plans of buildings and settlements were either made in sketch form on the site or traced from plans in estate offices, which provided me with valuable information.

It is not possible to acknowledge all the help given. The School of Scottish Studies in the University of Edinburgh and the Department of Geography in the University of Aberdeen provided considerable facilities; and the Planning Officers of the various counties were consulted. A particular acknowledgement is due to the factors of the Seafield Estates at Cullen and the Crown Gordon Estates at Fochabers and Glenlivet for allowing me free access to all the plans in their offices. Perhaps most of the information was collected in numberless prolonged conversations with owners and tenants of houses, local masons, slaters, joiners, estate workers and fishermen; the debt to all these is here gratefully acknowledged.
PART I

THE PHYSICAL, ECONOMIC AND SOCIAL BACKGROUND

The part of Scotland which is the subject of this study is a section of the North East Lowlands, south of the Moray Firth. It is an area conveniently separated both by its geography and its history from the rest of the country. Lowland in character, land use, language and history, this 'cold shoulder of Scotland' is cut off by the rising masses of the Grampians on the south and east, and bordered by the coasts on the north and west. While the south west corner is strongly marked by the western, it is only at the extreme north west and extreme south east that the Lowland Fringe reaches into the bordering regions. Sights like Kincardine, and over the way at Inverness; the Highland boundary fault, clearly marked on the geological map of Scotland, cuts into the sea just north of Stonehaven—and sharply divides the Old Red Sandstone of Strathspey from the Granite and metamorphic rocks of the eastern Grampian ranges.

But while its size is paralled by part of the edges of the Lowland area by such known markers, it is also true that historically the area has developed in certain principal groups, these and separation to the boundaries of the counties, and these reach only into the Lowland, incorporating with the true Lowland built a considerable area of upland and highland, rising on the boundary line as Galvaguar (Galway) and Nace ähn (43'43°) and incorporating the east of Moray (135°).
Chapter I. Nature and extent of the Area

The part of Scotland which is the subject of this study is a section of the North East Lowlands, south of the Moray Firth. It is an area conveniently separated both by its geography and its history from the rest of the country. Lowland in character, land use, language and history this 'cold shoulder of Scotland' is cut off by the rising masses of the Grampians on the south and west, and bordered by the ocean on the north and east. While the south west edges are strongly marked by the contours, it is only at the extreme north west and extreme south east that the Lowland fringe reaches into the bordering regions - into Invernesshire and Ross & Cromarty on the one hand, and into the Mearns and Strathmore on the other; but here too the region is bounded by two major structural faults. The Great Glen fault along the line of the Caledonian Canal meets the sea at Inverness; the Highland boundary fault, clearly marked on the Geological map of Scotland, cuts into the sea just north of Stonehaven and sharply divides the Old Red Sandstone of Strathmore from the Granites and metamorphic rocks of the eastern Grampian ranges.

But while it might be possible to mark off the edges of the Lowland area by some chosen contour, it is also true that historically the area has developed in certain principal groups which find expression in the boundaries of the counties; and these reach away into the hills to incorporate with the true Lowland belt a considerable area of upland and highland, rising on the boundary line to Cairngorm (4084') and Ben Macdhui (4296') and incorporating the mass of Lochnagar (3786'). In view of this and of the natural centres for administration and
trade, it has seemed convenient to include these Highland stretches which are closely related to the richer lands at their feet, and in general to mark off the area of the study by the county boundaries. The counties considered are Moray and Nairn, Banffshire and Aberdeenshire, and added to them is the small region of Kincardineshire that lies north of the Highland fault and which belongs in some ways to Aberdeenshire, from which it is divided by an irregular and confusing boundary to right and left of the river Dee.

The coherence of the group of counties owes much to their original formation and history. They have grown from an earlier distribution of power and property. The division of Scotland into counties derives from the introduction of the Norman system of administration into Scotland, particularly under David I (1124-1153), who had studied the system in its gradual development in England. The policy of David led to the almost complete expulsion of the Celtic system from the east of Scotland up to the Moray Firth, and the North East Lowlands therefore have developed along the lines destined by the Anglo-Norman influence of the 12th century. The county (comitatus) was the district under the count (comes), the equivalent of the older English term 'earl', and it corresponded with the older English 'shire'. David's division of Scotland into sheriffdoms began the process which led with various changes to the present county shapes of the North East, although the sheriffdoms (which were held hereditarily) were abolished along with the general abolition of hereditary jurisdictions in 1748.

Geographical factors clearly played a large part in determining these boundaries, and the names themselves suggest this influence. 'Moray' is supposed to derive from a form of the Gaelic 'muir', the sea, and would mean 'among the seaboard men', an apt description of the region.
The old name of Nairn was Invernarne the mouth of the Nairn, which in turn is derived from Gaelic 'the water of alders'. The origin of Banff is disputed, but Aberdeenshire takes its name from its principal town, Aberdeen, (Latin form - Aberdonia), which is Celtic in origin and means the town at the mouth either of the Dee or the Don, either of which would be apt enough.

The Province of Moray, before the reorganisation of the 12th century, embraced an area of about 3900 sq. miles, and included the two modern counties of Moray and Nairn, the whole of the midland district of Invernesshire, all but the outlying portion of Cromarty and more than 2/3 of Ross. Governed, as Moravia, by a 'Mormaer', it became, after the turbulence which followed the death of Macbeth in 1057, part of the kingdom of Scotland finally in 1124, when David I succeeded to the lands. The old provincial boundaries disappeared with the partition of the kingdom into counties, and although the name 'province' survived it included now only 'all the plain country by the seaside, from the mouth of the river Spey to the river of Farar or Beaullie, at the head of the Frith; and all the valleys, glens and straths situated betwixt the Grampian Mountains South of Badenoch and the Frith of Moray, and which discharges rivers into that Frith'.

Clerical organisation reflected the grouping of the lands. The Bishopric of Moray was founded in 1107 by Alexander, son of Malcolm Canmore. It played a most important part in the development of the country during the Middle Ages, especially during the episcopate of Andrew de Moravia (1222-1242), when the Cathedral of Moray was finally established on the banks of the Lossie, the Greyfriars and Blackfriars priories were founded (also in Elgin) and Pluscarden Priory was established. Urquhart Priory and Kinloss Abbey date from David's reign. The diocesan boundaries

during Alexander's time were almost identical with those of the restricted province outlined above. This province became an Earldom when Robert the Bruce granted it as a reward to his nephew Randolph in 1314 after the battle of Bannockburn, and made Elgin the centre of his territory.

The area of Morayshire was reduced from time to time to give it eventually its present shape. Nairnshire became a separate sheriffdom at the end of the 12th century, and has since remained a separate country; but it was part of the Bishopric and Earldom of Moray, and today much of its administration is still incorporated with that of Moray, so that it is convenient to group it with the latter.

Between Aberdeenshire and Banffshire, there is no real line of demarcation. They became separate sheriffdoms at the start of the process inaugurated by David. Originally, however, the territory formed two different regions - Mar and Buchan, the latter extending virtually from the Don to the Deveron, the former dividing itself territorially into the three divisions of Braemar, Midmar, and Cromar, and including the district of Garioch and Strathbogie. The mormaers of these regions are shown in the Scone charter of Alexander I as being recognised as 'comes' or earls, under the new Anglo-Norman system, but the territories underwent further change with the creation of the earldom of Garioch by Malcolm IV or William the Lion, and the separation of Formatine (south of the Ythan) from Buchan to form a distinct thanage. Aberdeenshire thus has generally been regarded as forming 5 territorial divisions - Mar, Garioch, Strathbogie, Buchan and Formatine; and these regions are still distinct today. Gordon of Straloch, describing the region for Blaeu's Atlas of 1654 gives these divisions and adds Boyne, Enzie and Strathisla (now the north part of Banffshire).
They were reinforced by the reorganisation of the church after the creation of the Bishopric of Aberdeen, confirmed by Pope Adrian IV in 1157. The territories from which the Bishop drew revenue extended in patches over the whole area, and it was divided into deaneries and parishes which corresponded generally with the political demarcations. Mar, Buchan and Garioch formed deaneries, that of Buchan including Lower Banffshire which later, however, became a separate deanery with its centre at Boyne. Aberdeen stood alone, Strathbogie was a deanery of the bishopric of Moray. The burghs of Aberdeen and Banff were in existence by the time of the reign of Alexander I, and always remained the administrative centres of the two counties.

It is unnecessary to discuss in detail the particular development of the counties under consideration. The peculiarities of their boundaries owed much to the changing fortunes of families in the turbulence of their history. The pattern in the 17th century can be seen in the maps of Gordon of Straloch, printed in Blaeu's Atlas of the World, 1654 (Figs. 1 & 2.). By the 19th century there remained a number of anomalies due to such factors. A large part of the Parish of St. Fergus, for example, though planted in the heart of Aberdeenshire, belonged to Banffshire, its owners the Cheynes having been hereditary sheriffs of Banffshire, with influence sufficient to retain it within their jurisdiction. Of the thirty civil parishes of Banffshire, portions of six were in Aberdeenshire and five in Moray, while St. Fergus was entirely stranded in Aberdeenshire.

The county of Nairn had five detached parts, three of which were contained by the county of Elgin; Aberdeenshire had a detached part wholly contained in Banffshire. Under the Local Government (Scotland) Act of 1889 these and other anomalies were finally removed, and the
counties assumed the shape they have today. The parishes of Gartly, Glass, New Machar, Old Deer and St. Fergus were transferred wholly to Aberdeenshire, those of Cabrach, Gamrie, Inverkeithny, Alvah and Rothiemay to Banffshire. The latter gained also Boharm, Inveraven and Keith from Moray, and ceded in return Bellie and Rothes. Dyke and May became part of Morayshire. A number of parish boundaries were readjusted to suit the changes, the Invernesshire part of the parish of Cromdale, for instance, being transferred to the parish of Duthil, and Morayshire retaining a now restricted parish of Cromdale. 2

Today Aberdeenshire has an area of 1,261,971 acres (of which 6400 are water). Banff an area of 403,053 acres, Moray 304,931 acres (excluding water) Nairnshire 104,252 acres. These boundaries can be seen in Fig. 4. 3

2. Shennan, 152-187

3. General:
   Watt, Aberdeen & Banff Rampini, Moray & Nairn Cambridge County Geographies, Aberdeenshire, Banffshire, Moray and Nairn
Chapter 2.

Structure and Relief

The North East of Scotland shows considerable diversity in both its surface and structural features. Rising in sometimes regular and sometimes spasmodic bounds from sea level to the Grampian heights of the South and West, its shapes have been scored and furrowed by the glaciers in their path to the sea. A complex folded and faulted structure with a composite coastline of depositional, erosional and residual forms, where fluctuations in sea level have produced raised beaches and submerged folds and the wind has flung deposited material into shifting dunes, it has suffered from a great deal of erosion and lost in many instances the relation between structure and relief. The main streams run towards the sea from the Highland masses, from West to East towards Aberdeen, from South to North in the Province of Moray, but the drainage is not simple and there are cases of river capture which have altered the original pattern.

While the exposure by erosion of many igneous intrusions of Caledonian mountain building movements have brought about important economic effects, such as making available granite for building, the dissection of plateaux by river action has influenced too the relief of the region and had important consequences on the pattern of settlement.

Factors such as these are important as far as this study is concerned. It is clear that there is a close correlation between the geographic background of the region and the settlements themselves, and between the geological formations and the available building materials, thus affecting both the nature of communities and the style of their buildings. A third factor is important too, and will be considered later - the influence of man on the land. For much of the extreme north east, originally poor in quality, has been largely man-made; and its present
form is as much the product of years of enduring work as of natural physical advantages.

GEOLOGY

It is not proposed, however, to treat the region in great detail as regards solid and surface geology, the significance of which will be discussed later in relation to building materials and industries. Fig. 5 illustrates the geology of the region. Most of it is formed of the Precambrian, greatly metamorphosed Highland Schists, striking generally from South West to North East. In Aberdeenshire these generally belong to the Dalradian Series in the North East, and to the Moine Series or Central Highland Granulites in the South West, the latter also forming the southerly mountainous portions of the Province of Moray. These rocks, originally sediments such as clays and sandstones, were metamorphosed during the great mountain building movements, to produce the present slates and schists (from clay), quartzites (from sandstone), and other metamorphic rocks. Important bands of quartzite run along the general strike direction in Buchan, in Upper and Lower Banffshire, and in the greater Upland and Highland parts of Moray and Nairn. In juxtaposition with them run the bands of schists, slates and phyllites and pebbly grits, from the south of Banffshire to its coast and in an important large area of western and northern Aberdeenshire from the Foudland ridge to the coast of Macduff; parts of this group were economically important in the production of roofing slates and wall materials. Alongside these again there runs in Banffshire a highly important series of beds of metamorphic limestone, following the quartzites and slates from Tomintoul to the coast.

During the mountain building movements masses of igneous rocks were injected into the crust; later again a new set of igneous intrusions took
place, spreading the granites and gabbros that give Aberdeenshire much of its character. Of these Younger Igneous Rocks, it is the granites of Buchan, and westwards from Aberdeen, of Bennachie, and of Ben Rinnes near Strathspey, that are mostly interesting in this study; exposed by erosion, they have become available for building.

Later again came the sedimentary rocks. It is supposed that the Old Red Sandstone once covered the whole of the ancient rocks of the North East. Erosion has mainly removed it to lay bare the igneous and metamorphic rocks; but in places it has been preserved by downfaulting. Its constituent rocks are sandstone and conglomerate, with smaller bands of shale. There are three main series. The Middle Old Red Sandstone, often conglomerate, runs in a broad band from Fyvie northward through Turriff to Gamrie, where it is exposed sharply on the cliffs, in a strip from Kildrummy to Rhynie on the edge of the Cabrach, both east and west of Tomintoul, in a strip south of Fochabers on the Spey to the coast at Buckie, in a broad path north of Rothes, and in the West of Nairnshire. Upper Old Red Sandstone covers the greater part of Lowland Morayshire, east and west of Elgin, and is responsible for much of its attractive building stone. North of this, in the coastal strip between Burghead and Lossiemouth runs the third series, the Permo-Triassic Sandstone.

GLACIATION

This basic structure has been greatly influenced by the action of the Pleistocene glaciers, so that glaciation, erosion and river action have added to the complexity and interest of the terrain.

In the glacial Period the Grampians were the great centre of ice-dispersal. The shifting glaciers have had an effect on population distribution. By depositing sands and gravels they formed easily
drained dry areas; by impeding drainage on the gentle slopes of old erosion surfaces, they brought about wet areas. It is in the former group that most population is found. Furthermore glacial drift has influenced the soils and modified the river system, thus directing the development of industry.

In the North East, it is generally considered, there were three main ice movements. The first travelled from N.W. to S.E., carrying in Lower Banffshire shells from the Moray Firth and great erratics of Jurassic clays and fragments of Cretaceous rocks. This was followed by the deposition of a series of clays, sands and gravels. A second movement, from the south, covered this with boulder clay and brought to the coast from Stonehaven to Peterhead a red ground moraine, with soft red shales and Old Red Sandstone conglomerates, part of the Strathmore drift. Its melting caused some of the hummocky moraine to the North and South of the Dee. Finally, the glaciers moved from the Cairngorms and Central Highlands and Banffshire Hills, from the West and North West, and moulded the detailed topography of the region. The cause of the deflection of the first two movements was the presence of the Scandinavian ice-sheet in the North Sea; and it is noted that erratics of Norwegian rocks have been found at Portsoy, Ellon, Bay of Nigg and elsewhere.

The glaciation of the region is thus important in the study in itself and in relation to the soils, such as the alluvial deposits which are discussed later. Some of the Jurassic clays mentioned above will be seen to be important in brick and tile manufacture (as at Banff). The boulder clays assisted the formation of peat mosses, the recessional phases of the ice movements caused deltas and made attractive centres for settlement. Furthermore, the disappearance of the ice brought about the raised beaches of the
North East, as the land uplifted with the melting of the ice. There are areas of level or gently sloping land on the otherwise steep Moray Firth coast and on the east coast, to the detailed form of which many of the fishertowns owe their position and prosperity.

RELIEF

It is on the basis of the resulting relief that the region can be most conveniently described. It can be divided into four groups, bounded by contour lines: a Highland region, an Upland region, a Lowland region and the Coastline. Fig. 6 indicates these regions:

Highlands (Grampians
Banffshire Hills
Hills of Cromdale)

Uplands (Western Uplands
Hills of Foudland)

Lowlands (Buchan
Banffshire Plateau
Strathbogie
Insh & Garioch Lowland
Donside
Deeside
Laigh of Moray
Strathspey)

Coastline

These divisions correspond in many instances to the old territorial divisions (Mar, Buchan, Strathbogie, Garioch etc.), and suggest confirmation of the influence of the physical background upon the social and political development of the counties. The main groups will be seen later reflected in the settlement and house types.

Highlands

The Highland region stretches along the Southern border of Moray and Nairn reaching its highest point there at the extreme southern edge
of the counties, in Nairnshire at Carn Glas-choire (2,162 ft.) and in Moray in the Hills of Cromdale (over 2,200 ft.). It reaches over towards the Deveron, west of Huntly, taking in Ben Rinnes (2,755 ft.), then turns South bounding the Buck of the Cabrach (2,368 ft.), crosses the Upper reaches of the Don and the Dee, and marches eastward to the sea between Aberdeen and Stonehaven. It is a well defined region which can be clearly seen in the relief map - rising raggedly upwards to the South and West to culminate in Ben Macdhui (4,296 ft.), and the wild bare passes of the Cairngorms.

Its topography is complex. Various structural and erosional factors have permitted the subdivision at the watershed of the Dee and Don drainage system and the parallel ridges of the Banffshire Hills. The basic structure of the North East, as indeed of the Highlands and Islands of Scotland generally, runs in lines from South South West to North North East, and this is clear from the direction of the valleys from the Great Glen eastwards to the Nairn, Findhorn and Spey. The grain of the Highland Schists of the interior runs in this direction; so do the bands of crystalline limestone in Banffshire, where valleys are often incised in this material, less resistant to erosion than its surrounding quartzites. Yet the Highland Plateaux of the Grampians have an east to west trend, and are developed on metamorphic rocks with great granite intrusions. The granite masses of Cairngorm (4,084 ft.) and Lochnagar (3,786 ft.) rise well above the general level. Along the Spey, Findhorn and Nairn there are old valleys at right angles to the main S.S.W. - N.N.E. trend, developed presumably on an ancient pene plain sloping to the South East.

The glaciers had the effect of lowering the watersheds and making possible passes for routes to reach the glens on the Strathmore side of
the Highland plateau. These routes across the Mounth will be discussed later; a most important line of valleys and hollows was also formed along the line of the Great Clain Fhearnaig fault, incorporating Glen Tilt and sections of the Dee, Quoich and Gairn rivers. Glen Tilt itself was a routeway from Upper Deeside to Glen Garry at Blair Atholl, and was one of those important passes from which the development of a different road system and transport has snatched the significance it had up to the 18th century.

The Mounth is the East to West belt of the Highlands along the south of the Dee and above Glen Esk. This region is hardly cultivatable; but there are some alluvial and glacial deposits in the valley bottoms and a natural formation of peat, and some slight population on the roads. Apart, however, from summer grazing and shooting parties, the hills offer little attraction to settlers most of whom went to the main but now partly deserted glens.

The East to West valley systems of the Dee and the Don are a different matter. Here deposits of glacial debris have made possible agricultural land and settlements, and there are settlements too on the less steep slopes where boulder clay and fluvo-glacial material settled after the passage of the glaciers. Terminal moraines are found in most of the tributary glens of the Dee and Don, and where gravelly deposits have rested between the foot of the lateral moraines and the highest of the river terraces, there are a number of settlements especially on Deeside, east of Crathie, 100 feet above the river plain, and in Strathdon and Glenbuchat. These are well drained lands. Some of the most useful land for cultivation lies in the alluvial sections of the valley floor, where Glen Clunie joins the Dee at Braemar, at Ballater, Strathdon and along the Don itself.
North of the Deveron-Don watershed, the valleys follow the direction of the strike. There are outcrops of resistant quartzite and valleys formed from the less resistant schists, slates and limestones. The upland basin of the Cabrach is an outlier of the Middle Old Red Sandstone downfaulted against the metamorphic rocks to the West; it has been populated. Further west in the Banffshire Hills, faulting across the grain between Dufftown and Rothes has formed a main route; further west again, in Moray and Nairn, the most important Highland features are the main rivers running along the direction of the strike of the rocks and giving occasion for settlement along the river terraces. Here, as in the Cabrach district, the covering of the rocks with drift has directed the laying down of considerable areas of peat, which are economically important.

In general, where Quartzite remains the chief rock there is hardly any population, and these regions therefore concern this study only in dividing one settlement from another. More important are the alluvial haughs, the terraces and places with fluvio-glacial gravels, such as the Fiddich, the Isla, the Deveron etc., and these are main populated areas in the Highland belt, where cultivation is carried on on the level and gently sloping fields between the steep valley sides.

**Uplands**

Areas of Upland lie between the Dee and the Don, in the Foudland Hills, and in a complex zone in Moray which divides the Highlands from the Laigh. In Aberdeenshire their axis lies from East to West, at heights of about 1400-1700 above sea level. They surround alluvial basins. An example is the Correen Hills, North of the Howe of Alford, where drift continues up to about 900 feet; heather grows above the cultivation level, and the summits are scarred with debris. They terminate in the craggy
granite mass of Bennachie (1,733 ft.). Just to the South, the Uplands reach from the Highland Plateau to Corrennie Forest and on to the granite Hill of Fare, cultivation rising to the same 900 ft. level. Many of these areas have been more highly cultivated in the past; today towards the west there are areas of heather and peat, broken by recent schemes of afforestation. The Don meanders through the fertile alluvial Howe of Alford, the North part of the basin ringed by the Uplands, to which the gap at Tillyfourie is the main entrance. To the south east of the basin lies peaty soil and waste land, to the south west a more undulating part in the Howe of Cushnie.

North of the Insch and Garioch Lowland, the Foudland Hills lie on slates and other metamorphic rocks. The slates for a long time had an economic value in supplying roofing materials.

The uplands of Moray are more complicated. They form a range of hills with peaks under 1,800 feet, the chief ones being Larig Hill (1,783 ft.), Cam Ruigh (1,784 ft.) and Cam Kitty (1,711 ft.). The '1,000 foot Peneplain' with actual heights undulating from about 750 ft. to 1,300 ft., covers an extensive area towards the south of the region. Glacial action has complicated its relief depositing Boulder Clay irregularly; and both it and river erosion in the soft glacial material have helped to carve steep valley sides in several places. Where the outwash falls of fluvio-glacial material have not been subsequently eroded, the land forms sloping terraces suitable for cultivation.

Lowlands

Buchan is an area to the extreme north east, bounded by the Ythan-Don watershed on the south and by the Portsoy-Foudland Hills on the west. In
the main it is a low-lying peneplain of ancient rock, rising only in a few places to heights of over 500 ft. (the proudest feature is Mormond Hill - 769 ft.). To the north and north east there are large tracts less than 250 ft. above sea-level; to the north west the ground slopes gently upward to the Hills of Bracklamore (723 ft.) and Windyheads (759 ft.), and this range extends northward to terminate in the picturesque cliffs of Pennan Head. The most important elevational feature is the series of low, flat-topped heights which separate the basins of the Ugie and the Ythan.

The eminences usually have a core of quartzites (this is typical of the ridges between rivers) or of schistose grits or granites beneath a covering of boulder clay. Surrounding Peterhead, for some miles, and further to the north west, north of Strichen and New Pitsligo, are outcrops of granite which have been extensively used in the buildings of the region and elsewhere. The once famous peat mosses of Buchan were caused by glacial drift impeding the drainage of the land; of these mosses, now much reclaimed, that of Rora, west of St. Fergus, remains typical.

Buchan is in many ways the most fascinating part of the North East. Bare, treeless, windswept, its level haughlands near the rivers contrasting with the extensive stony uplands, monotonous in its shallow relief (few slopes are over 5°), more than 4/5 of its land is nevertheless either cultivated or in permanent grass, and only in a few cases does the percentage for individual parishes fall below 75. The reasons for this will be discussed below; for of all parts of Scotland, Buchan is one of the greatest tributes to the work of man. Its bleakness has been reclaimed by the unremitting labour of several generations of farmers in the 18th and 19th centuries; it is, in the words of John R. Allan, 'an idea imposed on nature at great expense of labour and endurance, of weariness and suffering ... a mighty work, only half done'.

The Banffshire Plateau is divided from Buchan by a structural break from Portsoy to the South West, known as the 'Boyne line'. It is a sloping drift-covered plateau, about 800 ft. above sea level, dissected by the river Isla. Strathisla has gentle sides leading south into the dissected uplands, and north on to the peaty slopes of Aultmore (less than 1,000 ft.). In this part the Highland ranges advance to the north. It is thought that the Dullan Water and the Upper Fiddich once flowed into the Isla, but were later tapped by the lower Fiddich working its way back from the Spey; these developments have considerably influenced the communications of the region. The surface generally is covered with boulder clay, varied according to the underlying structure and varying in quality through the subdivision of the land by the rivers at right angles to the direction of the ice flow. Some of the best land lies in the east of the region where the drift lies on the Old Red Sandstone and along the fertile strath of the Burn of Deskford.

Some of the major fishing ports of the Moray Firth lie on the coast, in bays or coves, of the Banffshire Plateau. These from Portsoy westwards to Buckie are closely spaced, and many of them owe their origin to a combination of fishing and agriculture on the gentler slopes of the seashore.

Strathbogie lies between the Grampians and the Banffshire Hills and is a western continuation of Buchan edged by the Western Uplands. It includes the Lowland Belt between Kildrummy and Huntly, running north to south, a strip which is important historically. It lies on the Middle Old Red Sandstone, which was a useful building stone in early days, quarried both for building and to make millstones; secondly, it formed an important routeway between the Mounth and the Lowlands of Moray. It is to this that Kildrummy Castle owes its strategic dominance.
West of the area the hills rise up into the Cabrach; to east lies the
Insch and Garioch Lowland. The strath narrows at the watershed of the Don
and the Deveron, between Lumsden and Rhynie and between the Coreen Hills and
the spur of the Buck, and at Gartly between the Hills of Foudland and Tap o' Noth.
Much of its importance for settlements derives from the recessional phases
of glaciation. There are great deposits of glacial outwash material between
Kildrummy and Rhynie, and this extends up the sides of Clova Hill west of
Lumsden to about 900 ft. and to 750 ft. on the other side. These deposits
have left a soil which is easily drained and richly cultivated, while
Huntly, the capital of Strathbogie, stands on a stretch of alluvium at the
confluence of the Bogie and the Deveron and is one of the most important
agricultural and marketing centres of the region, its prosperity being
enhanced in the 18th and 19th centuries by woollen manufactures.

The Insch and Garioch Lowland has been described as the 'granary of
Aberdeenshire'. It lies on a gabbro intrusion, between the slates of
Foudland and the granite of Bennachie, and forms in general the drainage basin
of the river Urie. It is an area of weak relief, covered with boulder
clay except for some resistant gneiss and diorite masses. Edging on
to Strathbogie in the west at levels of c. 700 ft., it is higher in the
centre and lowlying on the east, and while the central part, bleak and
bare, divides the region it is primarily in the east that cultivation is
best and the population and settlement most dense.

Donside The Don rises at the western edge of the region at a height of
over 2,000 ft., flowing down through sparsely populated country as far as
Towie, thereafter, however, its characteristic feature, the alternations
of close gorge and open reach, has had important economic results in Aberdeenshire.
In the Towie and Kildrummy basins, excavated out of the Old Red Sandstone, agriculture is possible, good corn is produced and early settlements were made. Here the routes to the north, mentioned above, cross the Don. The Alford basin measures 12 miles from North East to South West and 9 miles from East to West, and is sheltered on all sides. The part known as the Howe of Alford lies below the 500 ft. contour, and its bould-clay cover has made it one of the most fertile parts of the country. Nearly 2/3 of the land is cropped. Lower down, alluvial deposits are found at Monymusk and irregular sheets of gravel on the fluvio-glacial terraces from Kemnay to Inverurie. The fertility of the whole lowland part of the Don, where water is easily absorbed by the fluvio-glacial grounds, is reflected in both the number of prehistoric settlements that have been discovered, and in the growth and development of existing settlements like Alford, Kemnay, Inverurie and Kintore (the latter royal burghs from the time of William the Lion). But the Don has another importance too. Below Dyce the course of the river, which up till now has meandered in broad curves through the alluvial flats, suddenly increases in gradient (falling 100 ft. in the last seven miles) the outcome of rejuvenation by glacial action. The result is the development of water power in its lower reaches, which the Dee, a better graded river, lacks; and this caused the industrialisation of the Lower Don, with its mills and factories. The combination of these advantageous features explain the old couplet:

'A mile of Don's worth twa o' Dee
Except for salmon, stone and tree'.

Deeside lies between the granite masses of the Cairngorms and their eastern continuations in the north and Lochnagar and Mount Battock in the south. From its source on the slopes of Braeriach the river falls through wild
country for nearly 3,000 feet to reach the Linn of Dee, above Braemar. Below this it enters a large alluvial flat at Braemar, whose fertility has combined with the junction of the routes from the south by Glen Clova and Glenshee, to make Braemar the important castle town that it remains today for more modern reasons.

Below this again the valley contracts by Balmoral, then opens out again in the wide alluvial plain at Ballater, a planned village that owes its existence to the opening up of routeways by the bridge in the 18th century. The valley becomes wider yet as the hills fall lower, but constricts above Banchory, from which the railway makes a detour to the fertile basin of Lumphanan.

Generally, there are two contrasts in Deeside. One is between the parts west and east of Ballater, the former being mainly given over to sheepfarming, the latter to arable and cattle; the other is between the north and south sides of the valley. While the south side remains sparsely populated except for small groupings along the south Deeside road and up the glens that gave access to the old routes southwards, the north side is more favourable to agriculture. In the gneissic basin of Lumphanan, in the sheltered Howe of Cromar with Tarland as its centre, the soil is fertile. On this side too remain some of the few lochs (Skene, Auchlossan etc.), and some patches of peat moss as in Skene and Echt), the remnants of drained lakelets. The South remains fairly sterile; but at one point there is a major basin, eroded by the Water of Feugh, where the resistant rocks by Banchory caused it to cut laterally above the barrier and form terraces. Further east the Kincardineshire Plateau is an undulating drift covered surface, much of it covered with peat and heath.
The Laigh of Moray is physically one of the best favoured regions in Scotland. It is a seaboard plain, bounded on the South by an upland region of ancient rock. In Moray itself it has a breadth of 10 or 12 miles; further west, in Nairn, it is only a few miles broad. Old Red Sandstone and later formations are found here, and the rich alluvial soil coupled with the mild climate is principally responsible for the excellence of its agriculture. The plain rises gradually from the shore, reaching an average height of about 75 ft. about two miles inland, then increasing in gradient to reach about 600 ft. in the next six miles. It undulates slightly in the East, but is practically level in the parishes of Alves and Kinloss, the most productive part of all. The influence of the large quantities of sand upon some parts is discussed below.

Beds of Old Red and New Red Sandstones run almost parallel to the coastline, and these are of the greatest importance in the history of the towns and villages. Building materials are obtainable from them, and it is here too that some of the best land lies.

There are extensive raised beaches due to recent emergence, in several post-glacial stages; so that there are wide terraces running roughly parallel to the sea. Over the whole lowland there is a thick mantle of various kinds of drift. The most extensive is glacial and is very diverse, with mica schists, granite, metamorphic Highland Schists in the east and the Old and New Red Sandstones near the shores. Boulder clay mantles the lowland from the raised beaches upwards; further up, above 400 ft. usually, remains glacial gravel.

The alluvium, which is so important agriculturally, is of two main sorts - marine alluvium, on the remnants of the raised beaches, especially in the extensive area in the Laigh from 50 ft. to 100 ft., and freshwater
alluvium along the old river terraces (there are seven such terraces to be seen on the left bank of the Spey below Boat o' Brig) and in the drained and reclaimed ground e.g. Loch of Spynie. These are well tilled parts and the soil is good.

Strathspey follows the general strike direction from south west to north east. A major break in the landscape of the north east, it has always been both a useful routeway northwards from the Highlands of Badenoch and a dangerous barrier between the eastern parts and Morayshire. It may be divided into three parts. As far as Laggan Bridge it descends rapidly, from there to Grantown its slope is gentle and in places almost horizontal; below Grantown the gradient increases again and the river sweeps menacingly to its changeable course by Fochabers and the villages at Spey Bay.

The land generally included in Lower Strathspey shows a remarkable relation between structure and its economics, particularly in the parts below 1,000 ft. At Keith, Dufftown, Rothes, and the villages of Aberlour, Newmill, Archiestown and Dallas there are local industries; but the remaining activity is agricultural. The factor that affects the agriculture is the position of the alluvial haughs and terraces and the fluvio-glacial gravels along the valleys of the Spey, the Avon, the Lossie, Blackburn, Dullan Water, Fiddich, Isla Deveron etc. It was in these parts that the earliest farms and crofts were settled (Spey Bay is still characterised by its unchanged early farm-town groups). Later the farms spread up the hills according to the nature of the rock zones. Thus the largest farms lie on the most extensive haughs and terraces (e.g. between Dandaleith and Dipple). On the turf, peat and heather-covered grits and flagstones, west of the Spey, there is little cultivation and large areas of grousemoor. On the Middle Old Red Sandstone from Gallows Hill, south of Fochabers, to the Lossie, the coarse conglomerate and gravelly soil is good for timber planting. Further west, in Teindland and Thomshill
the conglomerate is covered with thick sharp gravelly drift, and this is highly cultivated. East of the Spey are crofts and small to medium farms up to 1,000 ft.; here the drift from the phyllites, black schist and limestone makes a clayey soil mixed with peat. In Quartzite areas, as is the case in Aberdeenshire, there is virtually no soil, and these areas are virtually deserted.

Coastline

If one works down the coast from North West to South East, the first special feature is one of the phenomena of Scotland - the sandhills of Culbin. From Kincorth to the sea-shore a large area is completely covered with sandhills. These cover about 6 square miles and rise to a height of 100 ft., with dunes 10 ft. to 30 ft. high, and are deposits of blown sand influenced by the nature of the sea currents and the climate. The river Findhorn transports great quantities of sand to the sea, and this is swept on to the beaches by current and tidal action; it is then caught up by prevalent westerly winds and carried inland. The central part once formed the Barony of Culbin and was fertile and prosperous. A series of encroachments by the sand occurred; finally in a great storm in 1694 the mansion house, 16 farms and crofter cottages (with a valued rental in 1654 of £913. 13. 4 Scots) were overwhelmed. An Act was passed the following year to prevent the pulling up of bent for thatching and other purposes and thus loosening the sand. Today extensive planting by the Forestry Commission has altered the shape of the area.

Generally, the shore of the Moray Firth can be divided into two parts - the Low Coast, and the High Coast. The High Coast runs from Burghead to Lossiemouth (in Moray) and from Buckie to Fraserburgh (in Banffshire and Aberdeenshire). The remaining sections form the low coast.
In most places traces of raised beaches remain, clearly on the low coast, and in the High Coast places in a narrow fringe below the braes which is typical of the Buckie to Gardenstown villages. The depth of the Firth varies a lot, from under 30 to over 100 fathoms, the line of deeps continuing the line of the Great Glen lochs and curving east to follow the coast past Kinnaird Head. The tidal range is not large, being from 11 to 14 ft.

East of the Culbin and Maviston Sandhills and the much altered bay of the Findhorn, the stretch of High Coast from Burghead to Lossiemouth is an economically important area. This is the Parmo-Triassic Sandstone belt, carved into fantastic pillars and clefts at Covesea, and from it has been quarried stone at Covesea itself, at Hopeman and Burghead. It is presumed that at one time this ridge was cut off from the rest of the mainland by water; the draining of the Loch of Spynie completed the reclamation of the low-lying inland parts.

Spey Bay is a wide changeable estuary, responsible both for the existence of early fishing villages such as Garmouth and for their ruination (the harbour at Garmouth is now completely removed). But on both sides of the river the sloping land is agriculturally productive.

From Buckie eastwards the steep cliffs lie at right angles to the strike of the rocks. The action of the waves upon them has caused coves and bays, and here are situated the attractive fishing villages of the region. They are characterised by the raised beaches that lie at the foot of the hills, providing a shelf for a harbour and fishers' houses. The results are interesting. In Buckie, Findochty, Cullen, Gardenstown and others can be seen the growth of the settlements from their original villages on the low raised beaches to the present extension to the upper levels. At Gardenstown and Crovie in Gamrie Bay, the Old Red Sandstone conglomerate cliffs tower over the villages; at Pennan the conglomerate was once quarried
for millstones, the stones being rolled down the cliffs and transported away by boat.

Generally, the coast is stable, here and along the Firth, and around the lowlying corner of Fraserburgh. At Peterhead too the granite marks a firm coastline. But there are two obvious exception. One is Culbin, mentioned above; the other is the sandy coast of the 25 ft. raised beach between Fraserburgh and Peterhead and to the south, changes in which have led to loss of settlements and to the reclamation of land. The Royal Burgh of Rattray was swamped in the 18th century, when the land assumed its present shape and the Loch of Strathbeg was enclosed by 60 ft. high dunes. Further south lies another completely overwhelmed village, traditionally smothered in sand in a nine day storm in 1413, which also blocked the mouth of the Don and flooded the land. This is Forvie; the ruins of the old church remain, and recent excavations have been carried out on the site of the village.

The sand dunes continue south to the Dee, bordered on the inland side by the red ground moraine of the Strathmore drift, overlaid in places by sand and gravels. A submarine bar makes the Don un-navigable; the Dee however does not suffer similarly, and its mouth forms the harbour and port of Aberdeen. South of this again the land rises and there are steep cliffs along the seaboard of the Kincardineshie Plateau, excavated in places by the action of the waves. There are no beaches until Stonehaven is reached; yet there are still, and there were once still more, numerous small fishing villages at the tops of the cliffs, once prosperous, now devoted mainly to salmon fishing and part crofting, and tending to become dormitory villages for Aberdeen. (1)
(1) General References for Chapter 2.

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  Part 29 Aberdeenshire, p. 612-616
  " 6 Banffshire, p. 314-317
  " 2 Moray and Nairn, p. 88-92

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Chapter 3

Drainage and soils

The position and character of the rivers and their influence on the distribution of population and of settlements has already been mentioned. This chapter summarises the main features of drainage and soils.

DRAINAGE

According to the theory of Bremner, adapted by Peach and Horn, 1 the original drainage of the region was from West to East, on an old peneplain surface, whose remnants are to be found beneath the former Old Red Sandstone cover and later sedimentary rocks such as the cretaceous and tertiary deposits of Buchan. Some of this drainage remains in its modified but present pattern. Thus the Dee and the Don flow from West to East, and there are traces of others, such as the valleys which run by the Isla and the Deveron towards the sea at Peterhead, where now lie the Idoch Water and the Ugie. A wind gap dips from the Cabrach through the Insch Lowland and then continues by another gap at Old Meldrum to the Lower Ythan. Further north runs a distinct line from north of the Bin of Cullen to Boyndie Bay parallel to the coastline.

But while this West to East trend of the ancient rivers and the Moray Firth coastline accounts for some of the drainage, the system is complicated by the other outstanding factor in the relief and structure of the region. The grain of the structure lies, as discussed above, from SSW to NNE, and many of the rivers run in this direction, following the


These theories are discussed by Walton, p. 48-51.
pattern of the Great Glen. The Nairn, the Findhorn, the Spey flow along
the strike of the rocks. The Deveron follows a changing course, influenced
by river capture, both to East and North, to Rothiemay, then heads east-
wards along the old valley to Turriff, and finally declares itself in favour
of the strike of the metamorphic rocks from there to the sea at Banff.
Other rivers follow the northern trend, especially in the Banffshire Hills.
It is noticeable that the main Morayshire and Nairnshire rivers, after
cutting downward in the North Easterly direction to the soft deposits of the
lowland plain, then bear north across it to the sea.

The interlocking system of valleys is important for route-ways and
for settlements. The East-West and NE-SW trends are reflected in the
pattern of communications (Figs. 9-12). With regard to the distribution
of settlements, there are two outstanding general features for which the
rivers are accountable: firstly in relation to agriculture, and secondly
in relation to industry. In the valleys of the larger rivers,
rejuvenation has added to the effects of ordinary river development to give
a series of terraces at different heights - such as those on lower Speyside.
Elsewhere the formation of alluvial flats, such as those above the rock
barrier of the Linn of Dee, have left good cultivatable land and explain
the change in landscape and farming noted by early travellers. (1)

On the lower part of the Don, the extensive flood plains and terraces known
as 'haughlands', with their fertile alluvium, have led to the richness of
the crops as in the Howe of Alford, and the excellent land of Strathdon;
this is confirmed by the numerous early settlements there.

The Don indeed is one of the most interesting rivers from this point of view and illustrates at the same time the second feature of importance, viz. industry. It is not an evenly graded river, and in this it contrasts with the Dee. The latter flows downwards regularly through its varied and memorable scenery, never gathering enough sudden power to make industries practicable, and rarely opening out enough to enhance the value of agricultural land. Its importance today largely rests upon its tourist value. The Don, on the other hand, to some extent lacks the scenery for the very reasons that have contributed to its economic significance. At its start and along the middle part of its course it flows slowly downwards, meandering in wide sweeps through its extensive alluvial flood-plains, a feature noticeable in the Garioch lowland just above Monymusk. Its energy is held in check by the configuration of the land. From the 200 ft. contour shortly above Inverurie to the 100 ft. contour near Dyce its average fall is 6.1' per mile. But below Dyce the gradient suddenly increases to 14.5 ft. per mile, the result being ascribed to glacial debris, and forcing the river between high banks of stepping terraces cut in boulder clay or coarse glacial gravels. 2 Thus while the upper reaches have aided agricultural development, the swift flowing lower reaches have supplied power, and this is one of the chief factors in the early industrial development of lower Donside. The location of industries, such as the mill at Grandholm and the paper mills at Mugie-moss and Stoneywood, coincides with the provision of water power.

On all rivers the use of water power for driving corn and meal mills always created a regional centre. The restrictive mill practices (tenants being thirled to a mill by the landlord) made these crucial in the

agricultural life of the people until the end of the 18th century. Subsequently, when these practices were removed, mill farms developed on the site of the old mills.

But the most sensational significance of the rivers in the distribution of houses and villages has lain in the incidence of flooding. The Old and New Statistical Accounts of Scotland record numerous occasions of this, of which a few will suffice. Tarland was flooded in 1768, as was Fintry on the Don. Lumphanan has been frequently flooded; so have Auchterless and Fyvie on the Ythan, and the places at the confluence of the North and South Ugie near Longside. Banff too has often suffered. Various attempts have been made to effect improvements, reservoirs being constructed on the Don, embankments improved as at Fochabers on the Spey. But the problem remains, as can be seen from the summer floods of 1950 and again of 1956, when the Findhorn flooded seriously west of Forres and the Nairn destroyed large areas of farmland in the vicinity of the town.

In earlier days, floods could entail serious food shortages and sometimes the desertion of farms. The most serious floods appear to have been the terrible floods of 1829 - 'the Muckle Spate'. The devastation wreaked on that occasion makes the year one of the outstanding dates in the social history of the North East. Villages were flooded and ruined, cottages and churches swept away, and a huge number of bridges destroyed.

SOILS

Something has already been said in passing of the incidence of rich and poor soils and their effect upon the grouping of settlements. Generally

speaking, the value of the soils seems to correspond with the nature of the underlying drift material, and the pattern derived from this accords with the pattern already outlined with regard to relief, rocks, and drainage. A great deal of work has been done on soils in the North East, particularly by the Macaulay Institute for Soil Research; for the purposes of this study of buildings and their position, the following summary is based on an outline of the subject make by K. Walton of the Geography Dept. of Aberdeen University in his study of population movements in Aberdeenshire and Banffshire.

The most fertile soils lie in the middle of the valley slopes, which are well drained. Their value has always presumably been known; in early days, settlements were made in such places. But the great importance of soils became a serious study with the 18th century improvements (discussed later) and the introduction of new crops and new farming methods. Thus the Old Statistical Account of 1790 onwards abounds with references to the soils, especially along the river valleys, and comments upon the deterioration of the soil towards the hill tops. The agricultural reports drawn up under the direction of Sir John Sinclair from 1793 to 1816, similarly detail advantageous areas for farming. The poor fertility of the uplands, where peat overlies boulder clay, makes them now of little economic importance. But peat was important for fuel, and settlements are often found strategically placed to make this available. The later reclamation of peat lands and of the stony lands of Buchan is one of the awe-inspiring chapters in local history.

The settlement of drift from the action of the glaciers accounts for the distribution of many of the more prosperous areas, and also of the poorer ones. Thus the drift lying on the Old Red Sandstone of Gamrie in Banffshire provides a good fertile soil; the Strathmore drift along the east coast from Aberdeen to Peterhead makes for good pasture; on the
other hand, the transport of rock fragments such as the granite of the Hill of Fare over the ground to the west of Aberdeen made it sparse, and it remained waste until the mighty efforts of the reclaimers. There are good clay soils in the Insch and Garioch Lowlands, and between Cairnbulg and Rosehearty, and good loam soils in most of the river valleys except the Dee. Where the boulder clay and glacial gravel lie on the Moray Firth are the rich, large farms of the Leigh of Moray. The freshwater alluvium of Speyside has attracted population. The pattern accords with the other main land features.

The contrast of the Dee and the Don bears this out. The sandy soils of Deeside are less useful than the deeper and better clays of Donside, a marked benefit on occasions of drought. The former absorbs water very easily and the crops often suffer in a dry summer, so that the local saying that one day's rain will do for the Don what it takes two days rain to do for the Dee has foundation in fact.
Chapter 4

Climate

The factors which determine the climate of a region are its latitude, shape, altitude, exposure, ocean currents, distance from the sea, mountain chains, winds, character of its river systems and nature of its soils. Thus the climate of the NE Lowlands is intrically related to the already discussed topography.

But for the gulf of winter warmth which spreads from the south west of the North Atlantic Ocean, the North East Lowlands would suffer disastrously from their northern latitude. Aberdeen lies at a latitude of 57°9', Lossiemouth (the most northerly burgh in the region) at 57°44'. How far north this is has been vividly described: 'A visitor to Aberdeen, taken to Rubislaw Quarry on the western margin of the city and shown the surrounding country from the height of a small eminence there, might at first be surprised to learn that if he were to proceed due west from where he stood, it would be necessary for him to cross North America, Asia and part of Europe before he came to, or passed to the south of, a town as large as that which lay at his feet. Only when he reached the shores of the Baltic would he find Leningrad, Stockholm, and a few other towns lying in or beyond the latitude of Aberdeen and equalling or surpassing it in importance.'

Nevertheless, the temperature is above average for this latitude, heightened by the proximity of the North Sea, and the winds blowing from the Atlantic. While the mean temperature of Scotland is 47°, that of Aberdeen is 46°4'; Peterhead has a mean annual temperature of 46°8', Elgin one of 49°. The variations owe their origin to difference of altitude, and nearness to the sea, which operates to check both the heat of summer and the cold of winter. 

winter. In summer the Highland regions are warmer than the coastal belt which is cooled by the sea; in winter, however, the sea coast suffers little from frost, while the Highlands are in its grip - the Lecht road, the Cairn o' Mount, and the Devil's Elbow being closed to traffic regularly for several months.

Braemar, at 1,111 feet above sea level, has a higher temperature than might be expected. Its maximum mean temperature in summer is, however, 10° higher than that of Aberdeen, its minimum in winter is 20° below Aberdeen's. Peterhead, reputedly a bitterly cold town, has a small variation between summer and winter, comparable to that of Aberdeen. The coastal parts of Moray and Nairn generally enjoy higher temperatures than Buchan in summer; their monthly averages vary from 38° F to 56°F.

The figures reveal one of the main features of the climate in this region. There is a small difference in the mean maximum temperatures between the Highland valleys and the Lowlands; but there is a greater difference in the mean minimum temperatures, due to distance from the sea. It is also noticeable that the daily temperature range is greater inland than at the coast. At Braemar the mean daily range is 10.6° in January and 17.5° in July; in Aberdeen it varies only from 8.0° in January to 11.2° in July. In the Laigh of Moray it varies about 10° in winter, and only 13° or 14° in summer.

Nor do the figures for rainfall show much greater contrasts due to altitude (Fig. 7.). At the maximum rainfall station, Braemar, the annual average is 35°38'; at the minimum station, Aberdeen, the average is 29°49'. Moray has always been famed for the mildness and dryness of its climate. As long ago as 1640, Sir Robert Gordon of Straloch recorded the truth of that 'boast of the natives, that they have 40 days more of fine weather in every year than the neighbouring districts'. The annual average rainfall for most of it is between 25" and 30"; in the Laigh of Moray it is little
over 20\textdegree, reaching its maximum in the autumn.

In general, the more serious features that affect the people are the amount of snow and the length of its lie, and the prevalence of early and late frosts, which can be particularly severe in the Highland districts. In the lower parts, in Buchan for example, the spring is late and fogs are swept in by easterly winds.

Apart from the general variations over the whole region, each district is characterised by minor variations due to its topography and its nearness to the sea, and, more, by its exposure or shelter. A southern exposure, for example, makes for earlier crops than a northern one. Furthermore there happens frequently a combination of two factors, when the south-facing slopes are also shielded from the cold northern winds. This is particularly noticeable along lower Deeside, where the shelter and sun of the northern bank has influenced the development of Aberdeen's suburbs and encouraged ribbon development along the North Deeside road.\textsuperscript{2}

In Cults, Bieldside and Milltimber the layout is affected by this, the house fronts intelligently facing south on the south side of the road; further up, in Banchory, some interesting planning has resulted from it (see Part 3).

But other factors may play a part that cancels these advantages. Along the Moray Firth the position of the sun frequently has to be ignored for more compelling reasons. The small fishing villages of Pennan, Crovie and Penderestown huddle under the face of the conglomerate cliffs on raised beaches; so that even in summer the greater part of them is wholly in shadow. Generally, advantages of climate are quite outweighed in fishing communities

by advantages of terrain and landing access, and the villages have developed in a way that cuts this loss. It is noticeable that in more recently developed parts of the villages where sunshine could quite easily have been taken into account, in planned extensions to villages, a considerable number still face north or huddle in close groups; and their backs are usually too bespattered with sheds and stairways to allow much sun to penetrate the south-facing rooms. A view out to sea or shelter from the winds is of greater interest.

Shelter, indeed, is one of the most decisive climatic features in the arrangement of settlements. In the Lowlands, the cold north and north east winds sweep across the fields; and dense population is usually found in sheltered places. The Howe of Cromar, for example, is sheltered by mountains on all sides except the south; with its good soil, these favourable conditions combine to make it the 'granary of Mar'. Buchan has always been windswept, and along the coast the salt-laden winds from the sea can have damaging effects, ruining crops as the north winds can do, and contributing to the treeless aspect typical of much of the Lowlands. In Moray damage can be done by winds from the sea which shift the loose sands of the coastal belt and deposit them on neighbouring fields.

Two types of district tend to suffer from mists and fogs: basin situations or haughlands, such as the Howe of Alford, and the east coast, where summer fogs rim the sea and creep up the river valley. In Aberdeen it is often noticeable that the Dee valley and the Links may be covered but the upper part of the city remain quite clear.

Certain vagaries in the climate remain to be noted, which had perhaps a greater effect on the settlements in the past than they do now. In the
18th century, without the possibility of keeping stocks of grain and transporting food easily, subsistence farming was general in the North East. Towns were dependent on local supplies.

A number of poor years created famines, and these affected the population in two ways: cutting it down both at the time and subsequently through weakened resistance to disease, and making more urgent the need for land reform. The importation of grain which was stopped by an Act of 1672 had to be recommenced in 1698 as a result of the bad years from 1696 onwards. Export of grain was stopped at the same time. Despite this Buchan suffered severely from famine. In 1740-41 another great famine was attacked by means of public fasts, thus combining necessity and prayer; again, in 1767, poor people rioted in Aberdeen in protest against the lack of food. Public measures, including the purchase of grain, were taken to combat the great famine of 1782-3.

The effects of famine were most keenly felt in the 18th century, although later, notably in 1800, 1826, 1846, famines did reoccur. By that time, however, the reorganisation of famine practice and improvement in transport facilities had made them less serious in their consequences. The Cabrach's history was altered by the great famines of 1693-1700, the 'Seven Ill Years' which are frequently referred to in local reminiscence and histories. A succession of poor harvests and the falling into disuse of the meal mill, caused the entire population of the Upper Cabrach to leave, with the exception of one family, which held out until help and better weather came. Their house is still known as 'Reekimlane', or 'reeking lum', the only house whose chimney still smoked in that dreadful winter. The other inhabitants returned later. Another bad year was 1782, known locally as 'the black aughty-twa', when a great fall of snow on 15th September ruined the crop of oats.(1)

The Cabrach can still be cut off for months of the year, and it is

one of the characteristics of the houses to have huge meal girnels to hold the big supplies that have to be taken in before the onset of the bad weather. (2)

(2) General References as for Chapter 2.

There is abundant literary evidence of the movement, which it is not my purpose to discuss in detail. The basic sources from which such evidence can be obtained are the Statistical Accounts of Scotland, a series of statistical reports upon all the parishes in the country, written usually by the minister of the parish. The first, known for convenience as the Old Statistical Account, was undertaken and edited by Sir John Sinclair, and published from 1790 to 1799. The second, the New Statistical Account,
B. Work

Chapter 5.

Land Tenure and Utilisation

Of the various factors that influenced the distribution and structure of the settlements and buildings of Scotland, perhaps none was more important and far-reaching than the great revolution in agricultural practice of the 18th and 19th centuries. It altered the pattern of the fields and the physical shape of the land, the methods of tillage and breeding, and the distribution of arable and pasture grounds; it caused movements of population, a change in the traditional way of life and a re-alignment of the relationships between landowners, farmers and farm workers; it saw the abandonment of farm houses and offices or their replacement by a different type, the disappearance of old nuclei of buildings and the emergence of new farms, new villages and expanded burghs. As such, it is integral to this study. For while in the older burghs and in one or two strangely unaffected areas, the buildings or (more generally) the grouping of buildings have retained their old form, the greatest part of the vernacular architecture of the North East dates from years subsequent to this process and owes its form to the change. There are few remains to give material testimony to the preceding era. This study of vernacular building does not in general go back beyond the 18th century.

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was begun in 1834 and published from 1846 to 1850. Between the writing of these two accounts the great initial portion of the agricultural reform movement was carried out, and a comparison between the two Accounts makes significant reading. In addition Sir John Sinclair produced in 1825-6 a two volume Analysis of the Statistical Account of Scotland (a work of great value in forming a picture of the social economy of the end of the 18th century); he also became the first chairman of the Board of Agriculture and Internal Improvement, an independent body supported by public funds, which was instituted in 1793 and started immediately to produce reports on the agriculture and economy of each county. These reports were issued in two stages, the first set being only for limited circulation with side margins for comments, the second set ('General View of the Agriculture of the County of ...') being a definitive edition, published within the first two decades of the 19th century. The summation of these was published in 5 volumes in 1814 under the title 'General Report of the Agriculture and Political Circumstances of Scotland'. These reports not only reflected the change but stimulated and advanced it.

Another fruitful source of information is the succession of maps which were produced at about the same time. One of the most valuable is the Map of Scotland made by General Roy from 1747 to 1755 (in the British Museum) to a scale of 1" to 21/4 miles. It shows not only the settlements and roads but field strips and boundaries, wasteland and general relief. From a comparison of this with, for example, the maps by Thompson from 1826, the enormous reorganisation of the land can be clearly seen. More detailed indications are, however, best studied in the estate maps of the period. Some, e.g. a selection from the estate of Monymusk, are available in publication; others I have studied in the estate offices of the Gordon Estates at Fochabers
and Glenlivet and the Seafield Estates at Cullen. Information derived from them is used in this and later parts of the study.

The state of rural Scotland, in the early part of the 18th century, was bleak and unpromising. A number of factors contributed to the decline in prosperity and the poverty and hopelessness which attracted the attention of so many English travellers. The political unrest of the 16th and 17th centuries had a naturally adverse effect upon agriculture. The breaking up of mediaeval society, the destruction of the monastic foundations which played a highly important part in the agricultural economy of the country, left a gap in the social structure of the time, reflected in the unproductive carelessness of poor cultivation. It was the autumn of a mediaeval system that no longer existed politically; it was in need of new life and new organisation. Furthermore, at the end of the 17th century and beginning of the 18th a series of disasters drove sharper nails into the coffin.

The Revolution of 1688 left a feeling of unsettlement not only among the adherents of the Stuart cause. The ill-founded Darien Scheme, launched in 1695, carried into destruction a large proportion of the available capital of the country. Then famine, which was always a possibility in an economy with little reserves, appeared in an unusually protracted succession of bad harvests from 1695 to 1702. These years were long remembered/the 'Seven Ill Years' or the 'Seven Hungry Years'. Many people died from starvation, prices became so high that food was hardly obtainable, many died afterwards from disease, weakened by the famine itself, cattle perished in great numbers, and many farms were deserted. Fletcher of Saltoun, writing in 1698, maintained, probably with some exaggeration, that one person in every five or six lived on the verge of destitution. (1)

1. Andrew Fletcher of Saltoun, Political Works, 1749, p. 100.
The much debated Union with England caused anger and resentment rather than any immediate improvement in the standard of living. Nor did the '15 and the '45 help matters except at a later date, when the anti-Jacobite landlords who added immensely to their estates from those of their defeated rivals, set about improving them on a large scale, and imported from England both men and methods to increase the production from their farms.

Generally, the distribution of cultivated land followed the natural pattern indicated in the previous section. The low lying alluvial plains and narrow valleys were ploughed in parts and separated by tracts of moor. If the Highland part by reason of its natural structure was much as it is today, or even more densely cultivated than the present depopulating trend allows, there were nevertheless extensive areas, notably in Buchan and Banffshire, entirely uncultivated. The location of settlements depended upon the system of land tenure and the system of cultivation which it was the business of the improvers to replace.

The Unit was the farming township, or 'fermtoun', a collection of dwellings occupied by those who worked the farm grouped together in hamlets or 'tounes', (the Scottish word 'toun' has a different connotation from the English 'town', the equivalent of which in Scotland is a 'burgh') from which the open field spread in all directions to the meadow and waste in the distance. There are two essential features of the system, characterised by the terms 'infield-outfield' and 'runrig'.

The typical fermtoun's lands were divided into infield and outfield. The former, known also as 'croft-lands' or commonly on estates in the North East as 'intown', were nearest to the 'toun' and were kept under constant tillage, receiving in spring all the available dung, and following a regular rotation of oats, bere and oats. The outfield was cultivated for oats until
it became exhausted, when it was allowed to revert to grass for several years while another part of the outfield was utilised. There were considerable variations in the practice throughout Scotland, and the proportion of infield to outfield varied from county to county. In parts of Morayshire the whole farm was treated as infield, in Aberdeenshire the infield occupied generally only one-fifth of the total arable ground. (2) In this county the outfield was divided into two unequal portions. As Anderson wrote in 1794 in his report, 'the smallest, usually about one-third part, is called folds, provincially falds; the other larger portion is denominated faughs. The fold ground usually consists of 10 divisions, one of which each year is brought into tillage from grass. With this intent it is surrounded with a wall of sod the last year it is to remain in grass, which forms a temporary enclosure that is employed as a penn for confining the cattle during the night-time, and for 2 or 3 hours each day at noon. It thus gets a tolerably full dunging, after which it is plowed up for oats during the winter. In the same manner it is plowed successively for oats for 4 or 5 years, or as long as it will carry any crop worth reaping. It is then abandoned for 5 or 6 years during which time it gets by degrees a sward of poor grass, when it is again subjected to the same rotation.' (3) The faughs, he continues, were poorer, they were never folded or manured, but were ploughed by a system known as faughing in midsummer, and sown with oats until exhausted. Every Aberdeenshire farm had these fields. In addition some farms incorporated

2. Handley, Scottish Farming in the 18th century, 41.
Anderson, General View ... of Aberdeen (1794), 54.

Diagram illustrating infield - outfield system of rotation of crops in the North East.

OUTFIELD = Folds + Faughs.


with adaptations from J. Hudson: “Scottish Farming in the 18th Century”, p. 43.
Leigh-lands or haugh-lands, lowlying moist meadow grounds variously under oats or lying fallow, and Brunt-lands, of a mossey nature, the turf being occasionally broken up and burnt. (4) The attached diagram illustrates this system of rotation.

Beyond these fields lay invariably moor or waste, used sometimes for common pasture, and divided in the Highland parts from the farm lands proper by a stone 'head-dyke'.

The farm-town, the buildings of which will be considered later, was organised on a system of joint lease-holds known as 'runrig' or 'rundale'. The land was divided into long narrow strips called rigs, varying usually from 1/4 to 1/2 an acre in area, and separated from each other by uncultivated patches known as balks. The rigs might be over 3 ft. high at the crown and from 10 to 20 ft. broad at either end, varying in width as they wound their way irregularly over the fields, up to a length of perhaps 500 yards or more. They tended to grow higher and higher as the earth was gathered up from the open ditches and sides in a primitive form of drainage, so that in various places it is reported that a man standing in a ditch could not see his neighbour standing on the other side of the rig. The unploughed balks were used both for demarcation and for occasional pasture and space to discard stones from the ridges. This general arrangement can be seen in Fig. 19 (et seq.).

The basis of the runrig system lay in this: that the various joint tenants of the farm-town were allotted, usually annually, one or more rigs each, not necessarily together in a group but scattered throughout the farm. The redistribution each year was carefully organised to ensure that each tenant received his fair share of good and less profitable land.

4. Ibid. 56-7.
Thus the Scottish Justices' Manual compiled by William Blair and published in 1834 defines Runrig or Runridge Lands as 'strictly those whose alternate ridges belong to different persons; yet in practice this includes also larger parcels, but not exceeding 4 contiguous acres'. (5) The Joint tenants paid their rent, sometimes in kind, to the landlord according to the amount of land they held, and a local court made up by the tenants themselves arbitrated in the case of any dispute over the lands.

The size of a farm varied from place to place, but the normal sizes, whose names have often remained, owed their origin to this system of joint cultivation. Thus a Davoch (416 acres) contained 4 ploughgates (104 acres each), the latter being the area of a typical farm based on the measure of the winter's ploughing with the common plough. The Ploughgate contained 4 Husbandlands (the common unit for a smaller Highland farm) and 8 Oxgates or Oxgangs, this being theoretically the extent of the holdings of the individual joint tenants, each supposed to supply an ox for the common plough. (6) Certain parts of the work were done in common, as in places they are to this day. Leases were usually short, and this formed one of the main obstacles to improvement of the land.

An interesting account of the procedure is given by Gordon of Straloch (c. 1654), as follows:

"Of squires, who are numerous in England our neighbour, we have no experience in our country. Here also I desire to warn my reader that though our kingdom is, generally speaking, populated with few villages,

5. Blair, Justices' Manual, 1834, p. 214(a)
6. I.F. Grant, Social Effects of ... the enclosure movement in Aberdeenshire, 91-92.
paucity of inhabitants must not be inferred. The reason of this state of matters is as follows. Husbandmen eager for tillage thought from the very first that they were restricted in villages, and that, when they had so many neighbours, too little provision was made for agriculture; for at first the districts were divided into village settlements. To each of these so much of arable land was allotted as could be tilled with four ploughs. These sections of lands were called in the ancient language *daacha*, which signified village allotments. In many places in the higher districts the boundaries still remain, though the homesteads have been separated. But when the woods had been cut down four ploughs were no longer sufficient. Wide extent of bounds was inimical to agriculture, so that the proprietors, dividing the fields, set limits to each farmer according to his means, in such a way that the homesteads were continuous but not contiguous. I remember seeing instances of this procedure in my early years. The farmers abandoned their villages and removed each to his own possession, where any vein of more fertile soil attracted him. Here the home was fixed, and so it remains to the present day." (6)

It is clear that this system dictated the form of the small nucleated settlements, (7) some of which grew into more complex groups than the simplest 'fermtoun', with the addition of ancillary trades-people. Basically the town was occupied by the joint tenants, who took their leases from the laird; but this was complicated by the sub-letting of parts of the land

7. "Strathbogie in the olden time ... was divided into forty village settlements which ... they called daachs" (Gordon of Straloch 1654 from Macfarlane's Geog. Coll. Vol. II, 275.)
to sub-tenants, sometimes to cater for a large family. Poorer again than them were the cottars (known sometimes as 'acreman' or 'grassman') who held no land but worked for the tenants or sub-tenants. A development of the system which can be regarded as an intermediate stage in the process of reorganisation was the 'tacksman system'. The laird would let on a long lease a large piece of land, perhaps a Davoch, to a man of substance who might be one of his own kinsmen. He, the 'tacksman' then sublet some of the land and cultivated the rest with the help of labour dues from the subtenants; but the tacksman's strips of land and those of his subtenants were frequently intermingled in the common field. Aberdeenshire in the 18th century, sported a considerable number of tacksmen. (8)

In some respects the open-field, runrig system resembled the mediaeval manorial system of England. But there were several essential differences. Although in both cases the fields were unenclosed, the unit in Scotland was the farm rather than the village worked communally; and the common land in Scotland was the waste beyond the head-dyke. It is suggested that the Scottish system may have owed its origin more to Scandinavian than to Anglo-Saxon practice. (9) In any case it continued far longer than in England, where various factors such as the Black Death with its devastating reduction of the population, and the considerable growth of the towns led to its decline at the close of the Middle Ages.

The revolution in Scottish agriculture occurred in several phases and in a complex manner according to the locality of the changes. In the North East there were beginnings by progressive landowners in the middle of the 18th century; the main period, however, when most of the work was

8. Ibid. p. 92.

9. Stamp, Man and the Land, 44.
done, came after the famine of 1782-3 and lasted until about the middle of the 19th century; after that, the pattern had in general been set for the present day.

The 'new agriculture' was fostered by a considerable body of theorists and a number of important improvers' clubs founded in the 18th century. (11) Essentially the reform lay in the application of three discoveries. Firstly the value of thorough cultivation had been shown by Jethro Tull in his book 'The Horse Hoeing Husbandry' published in 1733, and this work was widely discussed in the newly formed clubs. Secondly, the value of turnips as a cleaning and manuring crop and as winter feeding of stock, though advanced first as a fodder crop in the 17th century by Sir Richard Weston, was put into practice by Charles, 2nd Viscount Townshend in his revolutionary farming in East Anglia from 1730-1738. Turnip Townshend's experiments were widely taken up by the improvers in the North East. Thirdly, stock-breeding was improved by a number of farmers such as Robert Bakewell (1725-1795), who showed that the way to improve stock was to breed from the best and sell the worst. Previously the opposite had often been the rule; so that it was said by a farmer in Buchan that 'we were thankful if a foal had four legs'. (12)

At the same time, methods of draining fields both with tile and stone drains were advanced, and new crops were introduced. The general economy of the country was recovering from political troubles, the opening of roads both by General Wade and the Turnpike Act of 1751, made contact with England

11. A full discussion of these is given in Handley, Scottish Farming in the 18th century, Chapters 6 and 7.

easier, and sales of cattle to the south increased in value. Landowners began to invest more capital in the land.

What improvements necessarily entailed was the enclosure of the open-fields. If the cattle feeding was to be successful, it was essential that the brown cow should not break out and eat all the 'neaps'. The old rigs had to disappear in favour of squarer fields bounded by stone dykes, which served the double function of marking boundaries and clearing the fields of their innumerable stones. This latter pursuit, indeed, led often to the building of dykes purely for the sake of clearing stones, known logically as 'consumption dykes'. The most famous is the great consumption dyke at Kingswells, about 5 miles from Aberdeen, where the need to dispose of the stones led to the construction of two solid dykes 5' - 6' in height: the West Dyke approximately 500 yards long and 27 feet wide, the East Dyke approximately 334 yards long and 7 feet wide. (13)

Enclosure in England had involved not only the fencing of fields but the legal subdivision of common land. In Scotland (where, as had been pointed out, the 'common' was a very different thing from the valuable English common) enclosure meant simply fencing a field, whether for arable use or plantation. (14) It was a juster, happier and simpler process.

Two Acts by the Scots Parliament in 1695 made the procedure a matter for a private lawsuit among the landowners, where in England each proposal involved an Act of Parliament. Thus Blair's compendium of the powers and duties


of the Justices of the Peace says of enclosing, 'Any one heritor (landowner) interested may apply to the Judges for a division of such lands (runrig) under a particular statute (Act 1695). And after due citation of all concerned (among whom tenants are not to be reckoned) to a day fixed by the Judge, he is to divide the interspersed spots anew in the manner most convenient. But especial regard must be paid to the mansion-houses of the adjacent heritors'. (15) So the jointly held ferm-touns were replaced. Instead of the rigs surrounding a cluster of cottages, there now lay squared fields, better drained, better manured with lime, enclosed, with a pond or burn swallowing the water from the drain, and a new or repaired road leading to a farm house and offices held by one tenant on a longer lease (usually 19 years). Sometimes a group of cotter houses nearby would house the dispossessed tenants now employed as labourers on the farm. (See Figs. 19 et seq.)

Clearly there must have been some unhappiness in the move. It is probable that the great strides forward made in productiveness and therefore in wages and general prosperity compensated for the loss of certain rights. Although in the North East there was not concerted opposition, as in Galloway, where stone dykes were overthrown, there was some opposition, open and concealed, for several years, notably on the estates where the earliest improvements were carried out - Monymusk in Aberdeenshire, for example, and Seafield in Banffshire. (16) But it soon changed. Francis Douglas in 1782 recorded meeting a man who had with most people come who travelled along the coast/to recognise the great benefits which the Earl of Findlater (later Seafield) had brought to them in his experiments after 1754. (17)

17. Francis Douglas, General Description of the East Coast of Scotland ... p. 300.
18. Grant of Monymusk: Description of the Foreign State of Banffshire, 1718.
18. Grant, Sir Archibald: Monymusk Papers (Mss 50)
19. Notably in Hamilton, R.: Life and Labour on an Aberdeenshire Estate ...
The spirit of improvement moved north from the Lothians, where the Earl of Haddington (1680-1735), Cockburn of Ormiston (1679-1758), the Earl of Stair (1673-1747) and others began early in the 18th century to devote great attention to their farms. The pioneer in Aberdeenshire was Sir Archibald Grant of Monymusk (1696-1792) who began as early as 1716 a course of improvement that lasted to his death. In 1716, he wrote there was 'not one acre upon the whole estate inclosed, nor any timber upon it but a few elm, cycamore and ash ... some stragling trees ... dwarfish and bruised by sheep and cattle. All the farmers ill disposed and mixed, different persons having alternate ridges; not one wheel carriage on the estate, nor indeed any road that would allow it.' The whole land was 'raised and uneven, full of stones ... the ridges crooked in shape of an S ... poor, being worn out by culture, without proper manure or tillage. ... The people poor, ignorant, slothful and ingrained enemies to planting, inclosing or any improvements or cleaniness; no keeping of sheep, or cattle, or roads ... The farm houses, and even corn mills, and mans and scool, all poor dirty hutts, pulled in pieces for manure, or fell of themselves almost each alternate year.'

In 1732 Grant was expelled from the House of Commons as a result of some rather shady speculation with the York Building Company; he retired to Monymusk in 1734 and spent the next 20 years clearing his debts and concentrating on the reform of the land. His numerous account books and writings have been published, and a clear picture of the improvements can be formed. He enclosed the fields with dykes and ditches, grew new

18. Grant of Monymusk: Description of the Present State of Monymusk, 1716. [Miscellany of the Spalding Club 1842, 96-7]

crops - turnips, clover and rye grass - introduced a wide variety of vegetables, and quite revolutionised farming practice by thus solving the problem of winter feeding and ensuring a proper rotation of crops. He made agreements with the work people about enclosing, lengthened their leases, advised and helped with draining, liming and manuring their land and brought in from the south experienced farmers either as overseers or tenants to influence the natives. He is reputed to have planted 50,000,000 trees in his lifetime. He fostered a local linen industry, built a lintmill and a weaving shop and laid out a bleachfield. He encouraged tradespeople to come to his estate, imported building materials, rebuilt the Kirkton of Monymusk and founded a new village at Archiestown in Morayshire. (20)

The effect of this work will be studied in a later chapter.

His example was followed by others. Joseph Cumine of Auchry succeeded to an estate near Turriff in 1739. He too reclaimed land, planted and enclosed, bred a superior stock of cattle, taught the tenants to burn and apply lime, which they had, on the terms of their leases, to bring from several miles away, and sowed flax. He built the village of Cuminestown as a market and linen industry centre. (21) Robert Barclay of Ury (1730-97) took over his estate in Kincardineshire in 1760, and whenever leases expired, put farms under his own management. By draining and ditching, clearing the fields (it is estimated that he moved 100,000 tons of stones), liming, importing English labourers from Norfolk, whose system of rotation he adopted, and planting thousands of trees, he raised the rent of his estate from

20. Handley, op. cit. 160-163

Hamilton, Life and Labour ..., ix-xxxix.

Old Statistical Account, iii, 74-5.

£200 a year to £1,600 a year at his death. His tenants rebuilt their houses with stone and lime, and these and other activities were much discussed at the meetings of the Farming Club at Gordon's Mill in Aberdeenshire. (22) James Ferguson of Pitfour, the Earl of Aberdeen, Alex. Fraser of Strichen, Alexander Garden of Troup, the Dukes of Gordon were all similar pioneers in the improvement of land, the fostering of industries and the building of villages and farms. One of the most remarkable of them was James, sixth Earl of Findlater and third Earl of Seafield (1714-1770), who succeeded to the titles in 1764. As Lord Deskford he came to reside on the estates in Banffshire in 1754, and introduced farming methods from the Lothians and England. (23) He took over one of the farms himself and imported three experienced overseers from England; 'and in a few years improved the farm at Craigherbs, in the parish of Boyndie, and Colleenard, in the parish of Banff, as well as the fields about his princely seat at Cullen House, in a style and manner then unknown in this part of the country'. He gave long leases of two/19 years and a lifetime to the more intelligent and active tenants on condition they enclosed the land: sent the sons of some tenants to study farming in Berwickshire, and tradesmen to learn in Edinburgh: planted some 11,000,000 trees: erected lint mills and founded a local linen industry. He was one of the commissioners for the management of the

22. Ibid. 164.

Robertson, General View ... of Kincardineshire, 323-350; with description of improvements by other proprietors, 313-23, 350-367.

23. cf. Souter, op. cit. (1812), p. 70, who says that agricultural improvements in Banffshire did not occur until after 1748; until then the whole country was on the infield-outfield system.
Forfeited Estates and head of the Board of Trustees for Manufactures. (24)

These brief accounts indicate one of the more important features of the 18th century improvements. The rural economy which they introduced was a double one – of farming combined with local trades, knitting, weaving, spinning. Hence the resettlement of many people partly as farm labourers and partly as industrial workers in newly founded villages. The industries and the settlements will be discussed later. But the pattern did not survive.

With the recession of the local trades at the turn of the 18th - 19th centuries, the emphasis on farming itself returned. The role of agriculture altered in about 50 years. Whereas the 18th century saw the rise of rural industries, especially stockings and linen, as joint or subsidiary industries with farming, the 19th century saw rather the development of specialised urban factory industries and of agriculture as the main support of the rural population.

Furthermore, the serious famine of 1782-3 gave an impetus to the rapid expansion of improvements on a much larger scale than before; and the driving force came now not so much from the laird as from the tenants themselves.

One example, from the bleak land of Buchan, will suffice to show the process. The Milne family took over the farm of Atherb, in the parish of Maud, after 1783. It was poor, stony and backward. The father of the Milnes from whose account this description is drawn took the lease in 1836 at an increased rent that enforced improving. In a struggle for existence, he started the use of bone manure in 1838, and slaved until he could afford to erect a threshing mill in 1856 to replace the old use of flails ("The threshing mill was a great factor in the making of Aberdeenshire").

24. New Statistical Account Banffshire, Cullen, 322-325

Souter, op. cit. 70-74, 120.
1860 when the lease expired he had reclaimed nearly 30 acres, all the land possible. On a new lease, he began to lime every field and take out the boulder stones, with levers and blocks, by blasting, by using fire to break up the bluestone masses. 'In the winter the boulders were dirty and wore the skin off our hands.' During this lease, he built 1,400 yards of dyke at his own cost with these stones, filled up the holes left by them carted 1,500 loads of clay to 3 acres of mossy land, made 1,000 yards of road with lea gatherings and granite rubble, built new byres — and began to make a profit.

In 1878 the family took over more land, exhausted through over cultivation after liming. The stones made another 1,400 yards of dyke, which was now contracted for at £6 a hundred yards (The proprietor paid £1 a hundred yards, leaving £70 to pay). They made 300 yards of accommodation road (about £40), built five additional wells, and again covered the bare rock and claymoss as before. Barns were rebuilt, though the house remained partly of turf.

'It cannot be said', Milne remarks, 'that extravagance in building has ruined the Buchan farmers.' Between 1856 and 1889, he calculates, over 22,760 loads of clay haugh loan and moss were carted on to the land to cover bare rock, clay the moss, fill stone holes and act as top dressing; in the same period £1,444 was spent on fertilisers, crushed bones, shell sand, lime and town dung, not including the quantities of guano, superphosphate, nitrate of soda, cake-feeding stuffs, turnips and straw, all used as fertilisers.

Nearly 50 years of incessant labour, the best part of two lives, had gone to make it an average rent-paying holding. From 1783 to 1878 the total rent paid by the tenants was £1,640; in the same period the proprietor expended £16 on house repairs for them. From 1878 to 1889, Milne paid £800 rent, and the proprietor expended £42 on houses and fences. At his own expense, Milne fitted up the old houses on the broken-up farm as dwelling
houses for servants. And yet, he adds, it was all done for the sake of profitable farming; he never made an improvement without himself deriving some benefit from it. (25)

The history, then of the development of the present farm system in the North East is essential to an analysis of the present form and distribution of rural buildings and villages. It has affected their shape and left its mark in their character. In no place more than Buchan does the story of ceaseless, determined work show fixedly in the solid, severe, independent houses, built into the granite round which their land is sparsely wrapped.

It remains to outline the main land use regions in the area, influenced by the natural features of the land and the work of agricultural development. The latter affected the intractable Highland regions least. The naturally fertile parts increased in arable use, but the greatest change was in Lowland Buchan and the Lowland parts of Banffshire, where the progress in cattle rearing and reclamation of land led to a special North-East type of agriculture. (See Fig. 7.)

Generally, the main features of land use can be summarised in relation to the regions defined in Chapter 2 - Highland, Upland, and Lowland. In Aberdeenshire, the Highland region, lying to the West and South, is largely heath and moor, utilised as grouse moor and deer forest and some summer grazing for sheep. The heather is systematically burned to provide the sheep and grouse with young shoots for feeding purposes. Along the valleys sheep rearing is pursued, and a limited amount of cattle breeding, while the alluvial stretches are cultivated to provide winter keep. Where the


(Trans. of Buchan Field Club), 159-170.
land in the valleys is unsuitable for agriculture and on the lower slopes of the mountains, forestry takes its place. The farm buildings tend to be small and isolated. In the Upland region, sheep rearing, cattle breeding and forestry are characteristic. Usually the good land below 1,000 feet has been reclaimed and the higher parts left as moorland grazing; many of the farms have both an area of arable land and an extensive stretch of hill grazing. It is in these parts, where much reclamation of poor land was done, that it is often easy to see today the return of the land to its former barrenness; the heather creeping down the lower hill sides but not disguising the old limit of someone's deserted effort. The lowland region has a uniform type of agriculture, though along the rivers, such as the Dee, some excellent forests have been planted on the lower slopes. But in the Lowland proper, the characteristic of the farming is the breeding, rearing and feeding of cattle and to a lesser extent of sheep. Here the native Aberdeen-Angus and the imported Shorthorn have made the district famous for its high quality beef and some famous herds. Dairy farming is important, especially nearer the towns, although quick transport has spread this activity into more outlying parts; there are even small farms near the coast in Banffshire which send milk daily to Aberdeen. Pigs and poultry are also a common feature, but minor to the cattle industry. Buchan is almost treeless, and the waste land there is largely peat moss, partly cut for fuel and used for grazing sheep.

In Banffshire the pattern is similar, but the regions are more dissected and patches of Lowland inside the Highland area and vice versa are reflected in the corresponding use of land. Most of Upper Banffshire, to the south, is moorland above 700 or 750 ft., although in some places cultivation has reached as high as 1400 ft. The surface is covered with heather and rough
grass, bracken and whin; normally treeless, the activities of the Forestry
Commission have covered large stretches of hill slopes in recent years with
straight-edged blocks of larch, pine and spruce. Sheep grazing is general,
and habitations therefore are thinly scattered - mainly sheep farms, shepherds' cottages and shooting lodges. Peat Mosses are economically valuable nearer to villages and industries in the improved glens, but normally communications are poor and even the few main roads which wind over the moors like the Feith Musach road from Tomintoul to Glenlivet are treacherous in winter.

Into this area, however, there creep the improved glens mentioned in the last sentence, lying in the drainage clefts and basins of the Highland plateau. Here the bulk of the land is arable, but there are large areas of permanent grass. The chief aim is the rearing of beef-cattle and sheep, which are sold off for fattening in Lower Banffshire and elsewhere. Rough pastures on the moors above are used for sheep. Nearly two-thirds of the Banffshire distilleries (see Chap. 7) are here, and they affect the land use both by utilising the peat mosses and distributing waste products as fertilisers.

The Land Utilisation Survey divides these glens into three types. The narrow upper Glens type includes Strath Avon, Glenlivet, Glen Rinnes, the Cabrach and the tributary valleys of the Upper Deveron. In the first three, which drain into the Spey, river terraces are frequently developed, and cultivated land forms a strip along the river side; at the top of Glenlivet, however, the open basin known as the Braes of Glenlivet has a more scattered distribution of farms. This pattern is typical too of the Cabrach and the upland basin of the Deveron. Sheep are more important than cattle, especially in the Cabrach, but cattle are reared more in Strath Avon and Glenlivet.

The failure of crops, as in the Cabrach famine mentioned in Chapter 4, is not unknown, and many farms have recently fallen into disuse, partly as a
result of a policy by the Commissioners of Crown lands of combining several farms into one, thus saving on the upkeep of buildings and allowing previously cultivated fields to fall back into rough pasture for sheep. The Forestry Commission, too, has planted over the sites of a number of farms, though this policy has recently been modified after protests from farmers. Small nucleations of dwellings occur near the distilleries or in the shape of crofting groups near a road. The chief settlement is Tomintoul, depending increasingly upon its value as a tourist centre. Further north is the broad glen classified as the Dufftown Arable and Grassland Region, centred about Dufftown with its seven distilleries. Here there is a large proportion of small crofts of 1 to 30 acres, and a considerable amount of afforestation. The Speyside Arable Belt, gently sloping country on the east of the Spey, is the most fertile part of Upper Banffshire. Its chief aim is the rearing of cattle, but there are considerable stretches of ploughed land on the river terraces. The distilleries are mainly situated in towns or villages, but there are small groups of Buildings around the remoter ones.

Lowland Banffshire is divided roughly into two parts by the 'bins' and other isolated hills, old hard rocks protruding through the drift cover, which are sometimes regarded as outlying frontier posts of the Highlands. They and the River Spey together form a fairly effective natural barrier between Aberdeenshire and Banffshire on the one hand and Moray and Nairn on the other. These hills - e.g. Hill of Mond and the Bin of Cullen, Hill of Aultmore, Knock Hill etc. - are generally a mixture of moorland and woodland (considerable plantations of conifers have been here on the hill sides) and small arable fields farmed by small crofts. On the south slopes of Aultmore, leading down to the marketing centre of Keith and breaking into the moor and peat mosses, lie a number of small farms and crofts, often
near the burns. Although several have been abandoned, the district generally regarded as 'backward' is still a well known crofting area. To the south and south-east lies the inland part of the Lowlands proper. Its centres are Keith, famous for its cattle and by reason of its excellent communications the most important market centre in the county, Rothiemay, surrounded by more heath and rough pasture varied by the parklands near the Deveron, and Aberchirder, known for its barley and more recently for sheep-farming.

The coastal arable belt is a well-defined region of good arable farming stretching from the parish of Gamrie in the east to the parishes of Rathven and Enzie in the west. Beef-cattle raising is a highly important activity, but the agriculture is generally mixed - sheep farming, pigs, dairying, the cultivation of oats, barley (sold to the distilleries) some wheat and potatoes take their place. The farms vary in size. The small crofts tend to amalgamate in pursuance of the general policy of the landowners to save in upkeep; otherwise their tenants combine the keeping of the croft with other work such as selling potatoes or working part-time on the larger farms. These in turn, sometimes as large as 300 acres, also tend to take over other farms or small adjacent crofts; McLean, the tenant of Rathven farm, now has the leases of six farms and has formed his family into a limited liability company. Generally this coastal belt changes in character from east to west. The eastern parishes in the Gamrie district compare in type, growing more oats and less barley, with the Lowland Aberdeenshire farms beside them; the Western parishes, separated to some extent by the Binns of Cullen and bordered by a lower coast than the former, are more sheltered from east winds, have a lighter rainfall, grow more wheat, barley and potatoes, do more dairy farming (influenced by the urban centre of Buckie) and are known for orchards and fruit-growing. In this they are akin to the neighbouring county of Moray.
The land use regions of Moray and Nairn may similarly be considered in relation to the physical regions described in Chapter 2. In the Highland areas, the prevailing moorland is used mainly for sheep-grazing and for shooting, though some cultivation rises as high as 1,250 ft. on the south and south-west slopes of the Hills of Cromdale, and plantations of trees have recently spread. The Upland are in these countries a complex area and the land use varies in different parts. The 1,000 ft. peneplain at Dava, on the routeway between Grantown and Forres, is fairly level land and is used for oats and some potatoes, grown on the crofts. In Knockando parish, also bordering the moors, cultivation is mainly on the low level beside the Spey, and here too are found the distilleries. The village of Archiestown planned by Sir Archibald Grant, dominates the main part of the improved land. Apart from these, there are two groups of upland regions, classified by the Land Utilisation Survey as the Darnaway Arable and Woodland Belt and the Dallas Cultivated Moorland Fringe, the distinction being that in the former the arable land is interrupted by woodland and in the latter mainly by heath and moor. The farms in the former tend to practise the breeding, rearing and feeding of beef cattle, and they vary considerably in size; those in the latter practise both cattle and sheep rearing and feeding, and frequently grow larger as the smaller crofts are abandoned. Subsidiary employment is often necessary; work in connection with the shooting has replaced the old practice of supplementing income by carrying peats to the markets in Elgin and Forres, where they were sold twice a week.

The Lowlands of Moray and Nairn are however the most important agricultural region in the two counties. This coastal belt, partly separated from the sea by the sandy stretches east and west of the Culbin Sands, and the Permo-Triassic Sandstone portion of the High Coast between Burghead and
Lossiemouth, is primarily an arable region and contains some of the richest land in the North East. A great variety of grain, vegetables and fruit, is grown, and the raising of beef cattle is highly important. The fields are usually fairly rectangular; the farms are of average size (often 100 to 200 acres) though in the Laigh of Moray to the East they may be much larger and more prosperous. The principal centres both in the past and today are Nairn, Forres and Elgin, well linked by roads, but at one time more independent due to the lack of bridges across the Spey and the Findhorn. Strathspey bounds the county of Moray on the east. At Grantown on Spey, and its surroundings, sheep grazing is prevalent; but Grantown itself, laid down in the 18th century, enjoys a sheltered position and a favourable climate that have combined to make it a popular health resort. Lower down the river cultivation is carried on along the river terraces in a variety of large farms and small holdings. At Fochabers the country widens out to embrace a region of mixed arable land, woodland and moor similar to the hilly outposts of the Highlands in Banffshire. Fruit is grown across the Spey from Fochabers, at the small regular road-side settlement of Mosstodloch, and this has enabled the jam factory (Baxter’s Preserves) to form an important employment centre for the area. Below this the Spey constantly alters its course, and patches of land come and go with the mood of the rushing water. Salmon fishing gives employment to men who farm small holdings and keep beautifully cultivated gardens in their spare time. These small holdings are some of the most interesting in the whole region; for in the hamlets of Dallachy, Auchenreath and Auchenhalrig, and some others further inland, such as Cowfurach, there have survived the nuclei of the old ferm-touns, and the land, though not held in run-rig, is divided often into strips. These hamlets will be discussed in relation to their houses and plans.
26. These notes from local visits and from the following:


E.B. Dobson, Land Utilisation Survey, Part 6, Banffshire, 335-343.

F.H.W. Green, Land Utilisation Survey, Part 2, Moray & Nairn, 107-121.
<table>
<thead>
<tr>
<th></th>
<th>Aberdeenshire</th>
<th>Banffshire 1933 - 38</th>
<th>Moray 1932</th>
<th>Nairn 1930</th>
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<tr>
<td></td>
<td>Acres</td>
<td>% of County</td>
<td>Acres</td>
<td>% of County</td>
</tr>
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<td>10.5</td>
<td>28,320</td>
<td>7.0</td>
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<td>45.0</td>
<td>149,775</td>
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<td>39.1</td>
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<td>Houses with Gardens</td>
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<td>.9</td>
<td>3,585</td>
<td>.9</td>
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<tr>
<td>Land Agriculturally Unproductive</td>
<td>5,400</td>
<td>.4</td>
<td>5,640</td>
<td>1.4</td>
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</tbody>
</table>
Chapter 6.

Forests and Woodlands

One of the most important and attractive features of the agricultural revolution was the planting of trees. In almost every instance, the plantations were the pride and anxiety of the improving lairds; useful in the sheltering of land, they formed too the principal means of beautifying the laird's own policies and setting off his mansion or castle against a rich background that often contrasted with the grim austerity of the buildings he had inherited.

Such plantation was desperately needed. The devastation of forests is almost one of the marks of the progress of civilisation, and it is clear that throughout Great Britain the forests rapidly disappeared through the agency of animals and man, utilising the timber for his own purposes and clearing areas as agriculture advanced. In Scotland the ancient Caledonian forests began quite early to disappear. Remnants preserved in the peat bogs record the proliferation of pine, alder, birch, hazel and oak in pre-historic times. (1) Natural processes took their toll along with clearances for safety from human foes, wolves and bears as the Bronze and Iron Age peoples moved northwards, and the destruction by warfare both then and later(2)

The Cabrach, whose name may suggest that it was once the 'place of trees', was transformed into the most treeless fringe of Aberdeenshire, either in a concerted effort to destroy the lurking wolves, or - a more charming story - in a deliberate fire ordered by the wife of Alexander III, who, irritated by

1. A point of frequent observation in the 18th Century.
   cf. accounts relating to Buchan in 1723, given in Macfarlane's Geog.
   Collections, Vol. I, 52, 57, 65 etc.

2. Taylor, W.L. Forests and Forestry in Great Britain, 10-11.
the fact that her husband, after defeating Haco of Norway, was so preoccupied by the forests he had planted there that he forgot on his return to enquire after her welfare and that of her newly born son, ordered the wholesale burning of the forest as a gentle hint of her displeasure. (3)

Scotland, in any case, was already becoming bare and windswept in the early Middle Ages, and from the 15th century numerous enactments were made to protect and replace the woods. An Act of 1503 states that the woods of Scotland were already 'utterly destroyed'. (4) Wood was imported in large quantities from the Baltic, especially from Memel. By the beginning of the 18th century the aspect was cheerless; and several writers pointed out that the practice of allowing animals to roam anywhere and eat any green thing they saw, which was inevitable in the unenclosed run-rig system, made it impossible for any native, self-sown trees to mature. (5)

Dr. Johnson remarked that a tree in Scotland elicited some of the curiosity bestowed on rarities. At St. Andrews, Boswell found a tree and recommended it to his notice: "I told him," says Johnson, "that it was rough and low, or looked as if I thought so. 'This!', said he, 'is nothing to another a few miles off.' " (6)

But in fact the old natural forests still survived in parts of the Highlands, and these in turn suffered in the 18th century from exploitation by English speculators on a much larger scale than before. The York Buildings Company bought 60,000 trees from Sir James Grant in 1728 in the

4. Taylor, op. cit., 11
5. Colville, J. Byways of History (1897), p. 6, quoted in Handley, Scottish Farming, pp. 16-17.
6. Johnson, Journey to the Western Isles.
hope of supplying timber for the Navy, and spent 4 years felling them and floating them down the Spey. (7) In 1784 a company called Dodsworth and Osbourne contracted with the Duke of Gordon for all the marketable timber in the forest of Glenmore. This too was floated down the Spey to Garmouth or to a village at the very mouth of the river which they founded to house workmen brought up from Kingston-upon-Hull and christened accordingly Kingston. Between 1793 and 1835 this firm and others built some 150 ships of various sizes, 'all of natural grown Highland fir timber as lasting as oak', and proved to be so by the fact that Lloyds insured the ships on the same basis as oak vessels. (8)

The improving lairds did much to correct this on their estates, planting firs, pines, larches, birches, elms, beeches, planes, limes and chestnuts on a grand scale. If often the criticism was made (9) that the plantations were only to be seen near the houses of the gentry, some landlords such as the Earl of Findlater did encourage their tenants to look after the trees, in this case by giving them the right to one-third of the trees on the expiry of their leases. Findlater planted some 11,000,000 trees. Grant of Monymusk is reputed to have planted 20,000,000 in his lifetime, mainly larch, beech, elm and ash, and his 'Paradise' garden was from the first a curiosity for all visitors to see. (10) In Moray, the 10th Earl replanted the old forest of Darnaway with over 12,000,000 ash, beech, elm, sycamore, spruce, fir and larch trees. James Farquharson

9. E.g., by Pennant and Francis Douglas.
of Invercauld planted 16,000,000 firs and 2,000,000 larches at Braemar. The Earl of Fife planted 8,000 acres of trees in the counties of Banff and Moray. (11) The agricultural societies such as the Highland Society, founded in 1783, stimulated the interest by offering prizes to those who planted the greatest number of trees in a certain period. These efforts expanded greatly in the 19th century, fostered by the foundation of the Royal Arboricultural Society in Scotland in 1854. The Forests of native pine and other conifers planted by the Scottish lairds were the principal sources of supply of home-grown soft wood timber in the two world wars. (12)

Even so, the position remained unsatisfactory. Before the 1914-18 war only 4% of the nation's requirements in timber came from home sources, and imports had grown steadily. The native hardwoods did not in any case fulfill the needs, since softwoods comprise nearly 94% of the total consumed in this country. (13) (It is for this reason that the Forestry Commission has introduced the sometimes criticised foreign trees (14)). A succession of Commissions examined the problem from 1885 onwards. By 1913 the total woodland in Scotland and Wales, including scrubland, parks and non-replanted land, represented only 5.6% of the total area, and the situation was worse in England. (15) The Great War finally pointed the critical nature of the situation, and in 1919 the Forestry Commission was established to tackle the problem systematically.

13. Ibid., 12.
15. Ibid., 187.
Initially the Commission was expected to afforest 1,777,000 acres in the three countries, and ensure home supplies of timber for at least three years in a National Emergency. The Second World War came too soon to allow this to be realised, but the activities of the Commission have expanded enormously and the total area of woodland in Scotland has risen steadily, from 852,120 acres in 1913 to 1,266,838 acres in 1947, according to an estimate by Professor Stamp. (16) The continuing extent of the Commission's work can be seen from the fact that in the year ending 30th September 1954, of a total area in Scotland owned by the Commission of 1,117,107 acres, 390,917 were under plantations and 34,344 acres were either planted or re-planted in that year. (17) The areas of plantations in the counties involved in this study are given in the table at the end of this chapter.

Of the 34,344 acres planted with 59,092,000 trees in 1953-54, 33,961 acres were planted with coniferous trees, by far the most general being Scots Pine (16,117,000) and Sitka Spruce (16,233,000 plants). Next in order is Japanese larch (9,221,000) and Norway spruce (5,611,000 plants); others, e.g. Corsican Pine, European larch, Douglas Fir, Oak and Beech are less popular. (18) The Scots Pine is the most extensively used in North East Scotland; the tree of the native Caledonian forests, it grows well on dry heather moorland and its distribution therefore tends to be in the east of the country. Spruce (of which Sitka Spruce and Norway Spruce are fairly equally important in this area) is grown on wet grass moor. (19)

16. Ibid., 196.
18 Ibid. Appendix II, p. 65.
The distribution of Forestry Commission plantations is shown in Fig. 7. In addition to these there are the natural woods and private plantations. Generally in Aberdeenshire this woodland is most abundant along the valleys of the Dee and Don with their tributaries and subsidiary glens. The native Scots Pine forms in the forest of Ballochbuie in upper Deeside one of the most extensive natural forests in Scotland. Mansion houses are usually sheltered by trees. Some of the sparsest areas are in the agricultural districts near the coast and especially in Buchan. In Banffshire the woodland is thickest near Cullen (Seafield Estate) in Deskford and Fordyce and in the lower Deveron Valley as the river threads its way to Banff, on the Drummuir Estate between Keith and Dufftown, and along Speyside. Moray and Nairn are some of the most thickly wooded counties in Scotland (20) and contain more hardwoods in the older forests. The private plantations of the 18th and 19th centuries account for a large proportion of the softwoods. (21) The main wooded zones are along the sandy coastal belt, in the Darnaway Forest and its surround, on both sides of the river Findhorn, and as a continuation of the Forests of Glenmore and Abernethy along the Spey Valley, from Grantown to Fochabers and Speymouth. A particularly interesting example of recent planting is that on the sand dunes at Culbin, Maverston, Roseisle and east of Lossiemouth.

20. Moray has 65,874 acres of woodland (21.6% of its area); Nairn has 20,029 acres (19.1%) - the highest and second highest percentages in Britain. (County Planning Survey)

21. Plantation began about 1770, at first only of Scots fir, but changing about 1800 to larch and the harder woods. (H.W. Watson, Morayshire Described, 1868, p. 5.)
AREA STATEMENT OF LAND USE: BY FORESTS

At 30th Sept., 1954

(From Appendix 13, Page 70-72, 35th Annual Report of the Forestry Commissioners, H.M.S.O., 1955)

<table>
<thead>
<tr>
<th>Forest</th>
<th>Total Acres</th>
<th>Acres under Plantation</th>
<th>Plantable (Provisional Allocation)</th>
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</thead>
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<tr>
<td><strong>NORTH CONSERVANCY</strong></td>
<td></td>
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<tr>
<td>Assich, Nairn</td>
<td>1,119</td>
<td>772</td>
<td>39</td>
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<tr>
<td>Ferness, Nairn</td>
<td>1,538</td>
<td>1,007</td>
<td>18</td>
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<tr>
<td>Laiken, Nairn</td>
<td>845</td>
<td>702</td>
<td>125</td>
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<tr>
<td><strong>EAST CONSERVANCY</strong></td>
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<tr>
<td>Alltcaillieach, Aberdeen</td>
<td>3,833</td>
<td>3,565</td>
<td>152</td>
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<tr>
<td>Bin, Aberdeen</td>
<td>5,987</td>
<td>5,166</td>
<td>109</td>
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<td>18,046</td>
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<td>Forest of Deer, Aberdeen</td>
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<td>Delgaty, Aberdeen</td>
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<td>Elchies, Moray</td>
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<td>Lossie, Moray</td>
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<td>1,670</td>
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<td>Forest</td>
<td>Total Acres</td>
<td>Acres under Plantations</td>
<td>Plantable (Provisional Allocation)</td>
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<td>TEINDLAND, Moray</td>
<td>2,372</td>
<td>1,666</td>
<td>286</td>
</tr>
<tr>
<td>TORNASHEEN, Aberdeen</td>
<td>9,278</td>
<td>1,555</td>
<td>2,044</td>
</tr>
<tr>
<td>WHITEHAUGH, Aberdeen</td>
<td>1,576</td>
<td>1,205</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: The acreage left over includes land unplantable etc. and land used for agricultural purposes.
Chapter 7.

Principal Inland Industries

The following brief outline of the development of industries omits one of the most important groups in the North East, viz. those relating to building and road-making materials. The granite industry, for example, has been a vital source of occupation and income in Aberdeenshire for several centuries. Together with other materials - freestone, slate, limestone, bricks and tiles - it will be described in Part II.

Generally in the North East the lack of any coal and the lack of minerals in sufficient quantity to make their exploitation profitable, have prevented heavy industries from developing, except to some extent in Aberdeen. There engineering and ship building (see next chapter) employ a larger number of workers than any of the other major industries. (1) The engineering firms are generally small (the category includes General Engineering, Electric and Motor Engineering, Motor Body Builders, Iron and Brass Foundries etc.); they grew in answer to the demand for agricultural implements that formed part of the 18th and 19th century improvements, (2) and today this local demand remains one of the main supports of the engineering industries. With the centralisation and specialisation of trade these firms have largely taken over the work of the local blacksmith, who once held an essential place in the village community. Ease of transport has brought Aberdeen's products to remote farms, and horses have gone to the knackers as the tractor came in the gate; so except in some pockets of conservatism the smith has either retired or installed a petrol pump, erected a shed, and bubbled back to the surface as a garage proprietor and motor mechanic of dubious qualifications.

This is one feature of the occupational change that has affected the nature of the smaller settlements. It is generally true of them that the influential industries have been the agricultural industries and rural handicrafts, coupled with the development of more specialised types, such as Distilling and Textiles. The former, developing in the pre-improvement settlements, helped the formation of the new villages; with the latter, they formed an essential part of the agricultural and industrial revolution whose results are seen today.

AGRICULTURAL INDUSTRIES (Fertilisers)

In his report on Aberdeenshire (1811) Skene Keith lists 16 sources of manure for the land. Fertilisers were an important factor in reclamation and improvement, and the list is interesting for other reasons.

1. Night-soil (street dung)
2. Stable-dung
   chiefly in the vicinity of Aberdeen
3. Soap-lees
4. Cow-dung
5. Dung of the butcher-market
6. Refuse of whale blubber
7. Sea dogs (coast of Buchan and Formatine)
8. Dung hills in Fishing villages
9. Sea-weed (or 'sea-ware')
10. Peat ashes
11. Lime
12. Old lime walls
13. Rubbish of old houses
14. Soot
15. Compost dung-hills (earthen walls of old enclosures etc.)
16. For the gardener, contents of the necessary dung of swine, poultry and pigeons ... ('found near the houses of landed proprietors') 3

Of these the majority are clearly non-industrial, becoming available for mainly natural reasons. Two groups, however, Sea-weed and Lime, did become important if often sideline industries. Nos. 12 and 13 are interesting in relation to this study, for they account for the disappearance of many of the humbler dwellings. The crying need for lime, which is generally in short supply in Scotland, has contributed to the lack of pre-18th century small houses throughout the country. In the neighbourhood of Aberdeen, at the time Skene Keith was writing, the lime mortar and small stones from old lime built walls, along with the plaster, could be sold as manure for from 1/6 to 3/- a ton. In the inland parts the rubbish of old houses, i.e. either the rotten roof covering of turf and straw or the clay and lime mortar from old walls, was used; known locally as 'lime redd' it fetched only half the price of that mentioned above. Sometimes it was mixed with animal dung in a compost heap, and this procedure became more methodical as the improvements progressed. The farmers 'now lay in the bottom of their dunghills, either the turf walls of old houses, of dikes ... ' and everything else available until it all underwent its 'putrid fermentation'. 4 In a country properly devoted to whisky and beer, the ultimate fermenting of the 'auld Hoose' was perhaps not an unworthy fate.

Sea-weed and lime varied in use according to the distance of the farm from the coast. Sea-weed (known as 'sea-wars' or 'tang') was spread on the land, often by the supplier rather than the farmers, and it frequently became an important sideline for the fisherfolk. Dried to form kelp it

3. Skene Keith, General View of the Agriculture ... of Aberdeenshire, 430-437.
4. Ibid., 439.
became for a time an effective local industry in several places on the coast - in the parishes, for example of Pitsligo, where about 1810-20 over 70 people were employed, in Lonmay (over 30 people) in Rathen between Cairnbulg and Inverallochy, Peterhead and in the Bay of Nigg, just south of Aberdeen. 5

But the trade had died by the time of the New Statistical Account, the removal of import duty on Spanish barilla making this latter commodity cheaper than the kelp. 6 The use of bonedust also increased with the improvements 7 and mills for bone meal became more common. At the one on the Burn of Tynet near Portgordon, a local character informs me, bones from abroad were brought in from boats at Portgordon; and in one consignment some brass buttons were discovered which clearly (?) came from the uniforms of a regiment which had fought under General Gordon in the Sudan.

More important, however, was the manufacture of lime. The great demand for lime at the time of the improvements (sometimes fields were ruined for years by over-enthusiastic liming) was met either from local supplies, especially in Banffshire, or from imported lime brought up by boats on their return trip from the Firth of Forth.

Since the use of limestone is also important in providing building materials, it will be more fully discussed in Part II. As regards agriculture it is clear that wherever limestone has been available (see Fig. 16) it has almost always been quarried and burnt at some time. In Aberdeenshire,

   Pitsligo, 402
   Lonmay, 230
   Rathen, 296
   Peterhead, 367-8
   New Statistical Account, Kincardineshire
   Nigg, 206.


which is generally poorer in limestone, there is evidence of its former
use, notably on Deeside, in the Corgarff and Glenbuchat glens, and also in
Buchan. A similar story can be read in the Highland parts of Banffshire;
in the Braes of Glenlivet, for example, there are numerous disused lime-kilns
on the farms. (*)

But Banffshire is unusually rich in limestone, and its manufacture
for fertilisers has become a highly important industry, centred mainly on
Keith and Dufftown, and supplying on a big scale the needs formerly met by
small local efforts.

(*) cf. N.S.A. Inveraven, 127: "Lime kilns are to be seen on almost
every farm in Glenlivet, for which and for family purposes, no small
portion of time is taken up in providing peat fuel."

CORN AND MEAL MILLS

In the feudal baronies the mill was one of the customary privileges
granted to the laird, and all the lands of the barony were strickled or
'thirled' to this mill. The 'thirlage system' continued into the 18th century,
in some places, as in Aberdeenshire, remaining common at the end of the
century. 8 Not only were the tenants bound to have their corn ground at the
laird's mill, but they also had to pay mill 'multures' (the price of grinding -
or proportion of the grain brought by the tenant), and perform such services
for the miller as bringing home a new millstone and cleaning the mill lead.
A fruitful source of income for the laird, or for a burgh, it was inevitably

a system greatly detested by the people it so badly served. Moreover the mills were not especially efficient until the latter part of the 18th century, when a number of improvements in machinery were made. 9

The mills were numerous (on the river Lossie, for example, there were mills at Dallas, Craigmill, Scroggiemill, Sheriffmill, Oldmill, Bishopmill, Deanshaugh, Newmill, Waulkmill), and often remain today in the same that they have occupied for perhaps seven centuries. The Mill at Carnousie, Forglen, for example, which still functions (although its owner does not foresee its continuance after he retires) has occupied the site uninterruptedly since the early 13th century. Naturally the mills are beside rivers and streams, and in many cases they have been the cause of the development of villages, enlarging from the original miller's house, and associated cottages and buildings. They are frequently characterised by the name of Milltown or 'Milton', e.g. Milltown of Rothiemay, Milton Brodie, or by the suffix 'mill', e.g. Bishopmill, Sherriffmill, Newmill.

With the introduction of better machinery, and the agricultural improvements, many of the mills were rebuilt. Previously the farmer had had to dry his own grain; now this was done at the mill, and kilns were commonly added to the buildings. A considerable number of these late 18th century and early 19th century mills survive; but, despite a temporary burst of activity during the recent war when many disused or little used mills were fully employed, the general trend has been towards the centralisation of milling and the small miller cannot compete. The number of small mills is steadily declining. In Moray and Nairn there

9. cf. Alexander, Northern Rural Life, 149-150.
are now meal mills only in Elgin and Nairn itself. 10 Banffshire has retained more of the old mills than Moray and many other counties; but there is a marked contrast between the small mills like Carnousie which are not expected to survive long and the major concerns at Keith, Portsoy and Buckie. 11 In Aberdeenshire, the same trend is noticeable, Aberdeen itself having six city mills to which grain is sent from the farms and by-products for further processing from the numerous small mills throughout the county. 12

PEATS

Until comparatively recent times the peat mosses of the North East, as indeed of all parts of Scotland except those immediately neighbouring the coal mines, occupied a much more important position in the general economy of the people than they do now. Shortage of timber, lack of efficient transport contributed to their importance; so that 'turf' (under which term is included peat itself and also the thinner crusts of heathery turf from waste ground) provided most of the fuel for the majority of people, and the gathering of the peat harvest - digging, drying and garnering - occupied a considerable part of their summer labours. Numerous references in the Old and New Statistical Accounts and in the Agricultural Reports of the turn of the 18th and 19th centuries confirm its general use. In his report on Aberdeenshire, Skene Keith wrote in 1811, 'Forty years ago

10. From notes made for the Moray and Nairn Development Plan Survey.
11. From draft for Banffshire Development Plan Survey.
the great article of fuel was peat dug from the mosses'; and at the time of his writing the town of Aberdeen spent some £4,000 on peat for fuel out of an estimated total fuel bill of £10,000.

Its uses were not confined to domestic heating. It was, and is, a fuel for drying the grain for distilling, it was used in fishcuring, lime-burning, charcoal-making and metal-working; and it found a number of agricultural purposes as an aid to manuring (its dross mixed in the dung-hill and fish-waste). Furthermore the peat mosses were capable of reclamation, and in Buchan particularly large areas were brought under cultivation as a result of the 19th century development of agricultural practice.

In the more recent years the use of peat has declined considerably. The opening up of transport both by land and sea has made coal available and also cheaper even in many cases to the remote crofters and farmers who still gather it as a long-established custom. In the Upper Dee valley calculation has shown that, even for crofts in the vicinity of peat mosses, coal could be purchased and carted at less cost per ton than that of winning and transporting peat to the croft. 13 In still more remote places this may not hold good; and the factor which makes the gathering of peat economical for local crofters is that its harvest occupies a slack period in the work of the croft. This applies also today to the distilleries; so that the peat industry is still comparatively important in eastern and northern Aberdeenshire, in the Cabrach, in the Tomintoul and Glenlivet districts and other remote areas. In most other industries, such as lime-burning, coal is now cheaper and is likely to remain so. But in one or two

13. For this and general information, see Fraser, Peat Deposits of Scotland, (D.S.I.R. & Geological Survey Wartime Pamphlet), Part I, p. 40.
districts a small regular trade in peats is carried on. The Pitsligo
mosses enable a firm to produce about 3,000 tone of peat per year for fuel,
peat litter and horticultural purposes; the Moss of Fisherie is exploited
by crofter-producers as fuel for country and fishing villages. In general,
the lowland mosses are in part reclaimed (although a noticeable amount has
reverted to low grade pasture) and in part much exhausted in earlier times;
the Highland mosses are largely untouched and extensive in area.

Fig. 8. shows the distribution of the main peat mosses in the North
East. There are four main centres: (1) the Grampian hill peats extending
from the Cairngorms to the North, North East and East, to the Hills of
Cromdale, to the Ladder Hills and the Cabrach, and to Morven respectively;
(2) the coastal peat area of Buchan, centred at Old Deer and reaching south
to Aberdeen and Westward to the Deveron; (3) the lowland and upland area
from the Deveron westwards to the foothills of Morayshire; (4) the peats
of the lower Dee valley.

It is unnecessary here to describe the mosses in detail. It is
notable, however, that this distribution has both affected and been affected
by the distribution of settlements. The availability of the mosses encourages
their growth especially in the remoter areas (the Feith Musach, for example,
is still important to Tomintoul and Glenlivet); on the other hand the
density of population from early times in the West-Central Aberdeenshire
district from the Hill of Fare to Turriff and from Old Meldrum to the
Correen Hills and Upper Deeside; and in the coastal plains round Elgin and
the other larger coastal towns, has denuded the peat lands. Fig. 8 therefore
is significant in showing the considerable extent of peat use in former
times, by its noticeable present day negative areas, influenced too by
reclamation. In Buchan alone, for example, some 3,660 acres of peat moss,
representing a yearly rent of £2,342.10s. were reclaimed within 30 years at the end of the last century. 14

DISTILLING

The North East, and in particular Banffshire, takes a leading place in Great Britain in the production of malt whisky. Not only are the malt whiskies themselves internationally famous (Glenlivet is so well known that the name is commonly tacked on to whiskies that never saw the glen), but they provide too some of the best whiskies for blending. Their importance in the national export need not be stressed. The distilleries have influenced population movements and the growth of settlements, either in expanded villages and towns (e.g. Rothes, Dufftown, and Craigellachie) or in clusters of dwellings around and near the fount of the 'stuff' (e.g. Minmore, Glenlivet). They make too a series of distinctive landmarks, which will be described later.

The history of distilling is closely related to the history of smuggling, which seems to have reached its peak towards the end of the 17th century and to have stayed there until the second quarter of the 19th century. There were two main classes of employment in this busy industry. Sea-board smuggling was most extensive from 1660 - 1680 and continued for many years after that. Kegs of gin from Holland, wines and brandy from France were landed secretly in creeks and bays along the coast. Peterhead and Collieston, on the east, Pennan, and indeed nearly all the ports along the

Moray Firth, were noted centres of the trade; and it has been said that there was scarcely a family along the coast from Don to Spey which was not in one way or another implicated. It was a fruitful source of income. Moreover, most of the lairds were involved in it, and to those who were Jacobites the avoidance of Excise Duty paid to the Crown was not merely a twisted form of thrift but also a positive virtue. The realisation by the landlords, however, during the 18th century that smuggling took up energy that might more profitably be put into land cultivation, tended to discredit it and help to stamp it out.

Inland, however, the practice of smuggling and distilling whisky grew tremendously in the 18th century, stimulated by the increase in the duties on malt liquors which was made not long before the century opened. Private stills were made illegal and illicit cottage stills became general. In 1823 a troop of excise officers systematically scoured Glenlivet and found 200 "sma' stills" in active operation. The whisky was carried over the hills (along the 'whisky roads') to Aberdeen and Perth, a journey whose excitement was enhanced by meetings with excisemen and rival gangsters.

The Rev. John Grant, minister of Kirkmichael, wrote of Tomintoul in 1794 that all the inhabitants 'sell whisky, and all of them drink it'. In contrast to this humane man, nearly all the ministers who contributed to the Old Statistical Account deplored the amount of time devoted to illicit whisky (making, selling and drinking it) by their parishioners.

15. For details of this smuggling practice see Alexander, Northern Rural Life, 182-4; Hutcheson, Days of Yore, 68-73; there are numerous other local accounts.

16. Barclay, Banffshire (Cambridge County Geog.) 58.

The Act of 1824 to promote distilling under licence and to suppress smuggling more vigorously than ever altered the picture. The Glenlivet Distillery was licensed in that year by George Smith, who had previously operated quietly in a bothy on his farm at Upper Drumin. Thus was founded the most famous distillery of them all. The Smiths steadily took over more and more land to ensure a safe supply of barley, and moved the distillery to its present site at Minmore, near the Castle of Blairfindy, in 1858. Practically all the distilleries in Banffshire and Moray were founded between 1824 and the end of the century (one claims to have started in 1736). Banffshire now has 22 distilleries (before Glenglassaugh closed it had 23); Moray has 21 distilleries, and Nairnshire 1.

The essential requirements in the making of whisky are pure water, barley and peat. The distribution of the distilleries can be related to these needs. Dufftown, on the river Fiddich, with 7 distilleries, is the most concentrated place; Speyside accounts for the majority of the remainder in Banffshire and Moray and the river Lossie and its tributaries for a large number of those in Moray. In addition there is a group in and near Keith by the river Isla; there are isolated distilleries near the coast at Banff, Glenglassaugh (now closed) and Inchgower near Buckie; there are two at Forres in Moray, one in Nairnshire, an isolated one (Knockdu) in the parish of Grange, Banffshire, and away in the south the famous Glenlivet itself. If the Lowland ones both in Banffshire and more especially Morayshire have the advantage of being in the chief barley-growing districts, it is in the main group at Dufftown, Speyside and Glenlivet that the combination of

18. "Glenlivet" (Centenary Pamphlets) 1924, 11-18.
advantages is greatest. Water that drains off from peat covering old hard rocks is said to give the distinctive flavouring; many of these distilleries are situated on burns that drain off the peat-covered granite mass of Ben Rinnes. Furthermore the peat used mixed with coke in drying the malted barley is plentiful, and is cut, stacked and gathered by the distillery workers during the summer before the barley harvest comes in. Barley is in part bought locally, and in part imported from abroad. 20

TEXTILE INDUSTRIES

In the late 17th and early 18th centuries, the era before the agrarian and industrial revolutions, the manufacture of cloth was closely associated with agriculture. It was a highly important home industry, essential in many cases as a source of income for farm tenants to pay their rent to the landlord. The raw materials, wool or flax, were grown in the ordinary course of farming operations, and spinning and weaving were carried on in the homesteads by the women and old folk. Serge was made for the home market and were sold at fairs and hawked about the country by travelling packmen; plaiding and a cloth called 'fingrams' were exported, principally to Holland. But the most common activity was the knitting of stockings and it continued throughout the 18th century.

The wool, either from local sheep or more commonly imported from England, was supplied to the knitters by merchants in Aberdeen, and the

20. Dobson, Banffshire (Land Utilisation Survey) 334-335.
1. E.g. the Countess of Erroll described it in a letter of 1680.
finished product was then taken back by them. 2 Alternatively merchants might attend the country fairs and purchase the stockings there. 3 The number of stockings produced was undoubtedly great. One man is reported to have employed 400 people spinning and knitting for him as early as 1676. 4 About 50 years later a memorial to the Trustees for the Improvement of Manufacturers stated that 'there is a greater quantity of coarse wool ... manufactured in the shire of Aberdeen and the manufactures thereof exported yearly from the port of Aberdeen than from all Scotland besides.' 5 Numerous writers in the Old Statistical Account described the prevalence of this industry.6 James Rae of Whitehaven, who was with Cumberland's army in 1745, wrote that in Aberdeen 'every morning the women bring in loads to sell about the town to merchants, who have them scoured for exportation to London, Hamburg, and Holland.' 7 Francis Douglas recorded that the stocking trade brought in 'from a hundred and ten to a hundred and twenty thousand pounds sterling annually; two-thirds of which are reckoned to be paid for spinning and knitting; the other third goes to pay the materials and afford a profit to the manufacturers.' 8 In 1771 there were 22 mercantile houses in Aberdeenshire engaged in the export trade of those goods, most of

2. Hamilton, Life and Labour, vxxv.
4. Alexander, Northern Rural Life, 136. The reference to a Mr. George Pyper is taken from Baillie Alexander Skene of Newtile, in Memorials for the Government of the Royal Burghs of Scotland, 1685.
5. Ibid., p. 136.
6. E.g. O.S.A. Kincardine O'Neil (600 women employed) Strathdon Rayne Glenmuick Cairnie
7. James Rae of Whitehaven, History of the Rebellion.
which went to Holland. Later, in his Report on Agriculture in Aberdeenshire, Skene Keith estimated that about 7,000 people were employed in hosiery manufacture and that their work supported some 20,000 people — and this was at the time when the industry was already declining.

The linen trade began in Huntly in 1737, where the Duke of Gordon brought in an Irishman to manufacture yarn and export to southern Scotland and England. But in the form of spinning and hand-loom weaving it was carried on in most of the towns and villages. When the woollen trade declined, the domestic linen industry continued for some time; girls spun their own linen against the day when they would need it to set up house.

But both wool and linen and later cotton (introduced into the North East in 1779) were manufactured on a larger scale as the 18th century progressed. The Union of 1707 brought depression when the breaking down of barriers flooded the Scottish markets with English goods; by the '20's, however, a movement to rehabilitate the trade was under way. The Society of Improvers in the Knowledge of Agriculture, founded in 1723, associated itself with the trading interests of the Convention of Royal Burghs.

10. Skene Keith, General View ... of Aberdeenshire, 580-585.
12. Skene Keith, op. cit., 585. He estimated that about 4,000 persons were employed in this branch of the trade in Aberdeenshire, of whom 2,500 were adults and 1,500 children aged 9 to 15.
in applying to the Government for the use of funds set aside by the Act of Union for the encouragement of industry. In 1727 Parliament instituted the Board of Trustees for the Improvement of Manufactures, with an annual income of £6,000. Directed to foster both manufactures and fisheries, its chief efforts lay in encouraging with grants the linen industry. With help from its funds, skilled spinners and weavers were imported, schools for the instruction of these skills were set up, and local centres begun. Already in 1703 a company had started to manufacture woollen goods at Gordon's Mill on the river Don; later on linen works sprang up there and at Grandholm in Aberdeen, Huntly and elsewhere. The landowners saw the usefulness of the trade in giving employment to their people; with them, it became an essential part of the process of reorganisation of the rural community. It provided the economic basis for the foundation of new villages, such as Cuminestown, New Byth, Strichen, Stuartfield, New Pitsligo and Fetterangus, and for the reorganisation of existing ones. At Monymusk, one of the pioneer villages, Sir Archibald Grant erected a lintmill with storehouses and outbuildings 'according to a model approved 1748-1749 by the Trustees', who gave financial support to the undertaking. He built a spinning house (at East Mains) with working and living accommodation for 5 spinners, and a weaving shop, and set aside land for a bleachfield. At the same time,

14. Hamilton, Industrial Revolution in Scotland
spinning continued in the cottages of the rebuilt Kirktown. 17 At Cullen, the Earl of Findlater, who was head of the Board of Trustees, introduced the linen industry in 1748. 18 The Lowland parts generally, and Strathisla and Strathbogie were most affected. Huntly was described in the Old Statistical Account as the 'Paisley of the North'; at Keith, two new villages side by side and another a short way off, were founded. Keith remains today a centre for textile manufacture.

In the early 19th century trade declined. The Napoleonic wars dislocated trade and made the price of Dutch flax excessive; imports to Glasgow from Ireland removed more of the market; and the decline in standard alienated buyers, especially in Holland. 19 Trade in Keith slackened before 1800, 20 in Huntly by 1840. 21 It died out entirely in many small places. The miserable little planned village of New Leeds is an example of a settlement that was founded in the hope of a prosperous future - to rival its more famous and equally miserable namesake across the Border. It died at an early age. New Pitsligo kept up the linen trade for many years, but it always remained a depressed, backward village. Furthermore, the introduction of power-spinning about 1800 concentrated the industry in the larger centres, whose prosperity fluctuated in the ensuing years. 22 Today the textile industry is mainly active in Aberdeen (13 firms, specialising in different aspects of the industry), Peterhead (2 firms), Keith (2 firms), and Elgin (3 firms).

18. cf. Handley, Scottish Farming, 166.
19. Alexander, Northern Rural Life, 139-140.
20. O.S.A. Keith
21. N.S.A. Huntly
Some of the effects of the industry on the settlements have already been indicated. Indirectly it helped to preserve the number of small agricultural holdings in the 18th century; it led to the formation of new villages and small factories that provided a feature of the villages; it led indirectly, through its decline, to the 19th century concentration on full-time farming and land reclamation; it caused ultimately the development of industrial regions on the Don near Aberdeen and in the districts outlined above.

PAPER MAKING

At Gordon's Mill, on the Don near Aberdeen, mentioned above in connection with the textile trade, an abortive attempt was made in 1696 to manufacture paper. The power supplied by the rapid fall of the lower reaches of the Don made milling an economic proposition, as the numerous meal mills in this district testified. However, it was in 1751 that the first paper mill to survive was established; this mill was set up by an Englishman named Bartholomew Smith at Peterculter, principally because of the availability of rags as raw material. In 1771 a returned emigrant started another mill at Stoneywood on the Don, recognising the value of the abundant supply of water. In 1821 the works at Mugiemoss, 2 miles further down the Don, were founded, and 1860 the mill at Inverurie began, using esparto grass. The last one was on the site of the unsuccessful mill at Gordon's Mills; founded in 1888, it became known in 1912 as the Donside Paper Company. These five works have made Aberdeen one of the most important paper-making areas in the country. 1 Their positioning, 4 of them being on the lower

Don, and one on the Culter burn, less than $\frac{1}{2}$ mill from the Dee, is directly due to the natural features of the landscape. Their effect has been to stimulate the growth of villages, such as Peterculter.

MINERAL WELLS

In almost all parts of the North East you can stumble on a spring or well that once had a well-authenticated reputation for medicinal or spiritual cures; at the least, the authentication had become traditional and added to the folklore. If today, only a few credulous visitors drop their pin or their penny into the smoky water for the delight and enrichment of the local children, these wells nevertheless had once a considerable importance, and brought visitors from many miles. In the 18th and 19th centuries the better known wells were in several instances responsible for the growth of a seasonal population and the development of a town.

Such a place was the Well of Tarlair, at the east of Macduff. It was widely appreciated; indeed the first act of Johnny Gibb of Gushetneuk of which we read in Will Alexander's book was to take his family in June 1839 on their annual journey to the Walls at Macduff. Where Johnny Gibb lived, 'they believed in the Wells, old and young of them. Elderly people, male and female, went to Macduff to benefit by the bracing effects of sea-bathing, combined with a course more or less rigorous of sea-water taken internally, followed up by the Mineral Water of Tarlair; sturdy bairns were taken thither in troops for the cure of 'scabbit faces' and 'sic like'; youths and maidens, whose complaints seemed often not of a deadly nature, went to the Wells as they could contrive to get; Jamie Hogg went there for the benefit of his 'sair een'; Peter Tough to mitigate the 'rheumatics';
Mains of Yawal, when he had occasion to 'gae doon throu' on business, actually drove his square wooden-looking gig five miles out of his direct route in order that he might have the opportunity of merely once 'dookin' at Macduff.' 1

The mineral spring in this Howe of Tarlair eventually dried up during the second world war as a result of an exploding mine, leaving a disused relic in the shape of a stone hut. But Tarlair still retains its importance in the prosperity of Macduff; for before the disappearance of the spring the Town Council had already constructed at considerable cost the Tarlair Swimming Pool, the largest and best equipped structure of its kind in the North of Scotland.

Mineral springs influenced also the growth of Peterhead, which was long noted for them. The Wine Well in particular (a chalybeate water of some strength) had a great medicinal reputation. In 1799, 1800 and 1802 for example, enterprising inhabitants constructed baths and apartments for visitors; and the fashionableness of Peterhead about this time added to its size and accounted for much of the building of terraces of Georgian houses. The spa lasted in effect from 1592 to 1840, from which date it declined steadily. The Wine Well eventually disappeared as a result of building operations.

Ballater, too, owes its existence partly to its fame as a spa, reinforced by the attention of 'Balmorality'. And there were many others - John Legg's well west of Portsoy, the Red Well in the south west corner of Boyndie Bay, the Priest's Well near Dufftown, the well at Tulloch west of Kininvie, the well of Feith Bhait at the head of the Don, the iron spring in the peat moss west of Brown Hill in the Lower Cabrach, which once was held in great local awe. Throughout Glenlivet and Strathavon there are numerous chalybeate springs, and upon the bare heathery shoulder of Cnoc Fergan

1. W. Alexander, Johnny Gibb of Gushetneuk, 9-10
stands St. Fergan's Well, now remote, but once the centre of a market-fair whose huts and shielings still show in stony mounds around the well.

OTHER INDUSTRIES AND OCCUPATIONS

Some attempts were made, principally in the 19th century, to extract ore for metals. Manganese can be obtained from a three-mile strip in the slate head of Glen Conglass, east of Tomintoul. For a few years following 1841 the mine was worked by the Duke of Richmond and a Newcastle firm; but this was abandoned and now only the stone building remains in sight of the Lecht road. Manganese was also discovered in 1919 in the Balroy Burn, west in the valley of the Nairn. Iron was wrought at the base of Ben Aigan, near Arndilly in 1864, but the vein was found to be too small for economic exploitation. Lead was extracted at Conlardhill, near the Lossie, in various attempts from 1773 to 1852, again in a pocket that proved too small. Talc (or soapstone) was until recently worked from a quarry on Durn Hill, 1½ miles, W.S.W. of Portsoy.

If these are some of the inland industries in the North East, there are still many others which need not be described in detail. Skene Keith lists rope works, breweries, tanneries, soap-works, candle works, straw hat manufacture (Aberdeen), pin making, printing (for which Aberdeen was noted from the end of the 16th century). 1 Souter mentions tanneries (at Macduff, Banff and Keith), breweries (at Banff, Portsoy and Keith) soap works (at Banff) tobacco (at Banff) and others. 2 And there have been and are all the necessary service trades. Skene Keith indeed mentions the shoemakers, house-carpenters, tailors, plough and cart-wrights, blacksmith and artificers
of all descriptions throughout the country; these were the people who were some of the most important and influential figures in the village community. 

The fishing industry in the North East has been one of the most formative influences on the development of its settlements in the last two and a half centuries. The rise and decline of the herring fishing and its relation with the longer established white fishing has been along the coast a factor comparable to the agricultural revolution in the inland regions. It is in many ways more complex and difficult to summarise. 

The size, character and prosperity of the fishing towns and villages can be studied as a whole against the background of the general rise and fall, technical innovation and dogged conservatism of the industry; yet one man's fish is another man's poison, and the very prosperity of one village has sometimes been directly related to the decline in another. Again, the effect on the fortunes of a village of the determined unity of its inhabitants can be matched in its neighbour by an obstinacy and internal rivalry that has blindly watched prosperity decline. In the situation today, it is probable that an enquiring visitor will be wholly convinced by one old man in a blue jersey of the depression, poverty and hopelessness of the industry at large, 

and reduced to confusion a few minutes later by another old man who explains in detail the wealth and unprecedented comfort of the fishing community. 

The fisherman who drives to the harbour in a fumber car and rarely stands a drink with anything less than a pound note is often an unconvincing exponent of the looming threat of bankruptcy; no less, indeed, than the well-fed farmer in a year of huge harvest who complains of the price of straw rope to bind his sheaves. It is not merely that fishermen are taciturn and secretive about their affairs. On the contrary, their very readiness to explain the true situation is the most deceptive element in an enquiry.
Chapter 8.

Fishing Industry

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The fisherman who drives to the harbour in a Humber car and rarely stands a drink with anything less than a pound note is often an unconvincing exponent of the looming threat of bankruptcy: no less, indeed, than the well-fed farmer in a year of huge harvest who complains of the price of straw rope to bind his sheaves. It is not merely that fishermen are taciturn and secretive about their affairs. On the contrary, their very readiness to explain the true situation is the most deceptive element in an enquiry.
It disguises, perhaps, some very deep reserve of which they themselves may not be aware.

In the scope of this study it is only possible to summarise the general trend in the industry, recognising on the way the individual curiosities that would demand a special and deeper investigation. Today, for example, the trend towards specialisation in fishing and centralisation of harbours and markets has aided the final collapse of many small villages and concentration in the bigger centres of Aberdeen, Peterhead, Fraserburgh, Macduff, Buckie and Lossiemouth. And yet while some of these, notably Buckie, are struggling to retain or regain their importance against the tendency of the fish-buyers to limit their places of buying still further, the village of Whitehills, only a few miles from Macduff, with a harbour that is half dry at low tide and requires expensive dredging, and only a small fleet of boats, has within the last five years built a market, found buyers and expanded its activities.

WHITE FISH AND HERRING

The East Coast fisheries did not grow to be a major industry before the 18th century. From early times, however, fishing was a widespread if small-scale activity, and during the Middle Ages several attempts were made by the Scottish Parlia ment to extend its scope. The dominance of the Dutch boats in the German Ocean and Moray Firth prevented any great development; and although in the 17th century James VI tried to wrest the herring fishing from them by insisting on licences and taxes (1609, 1617), and Charles I created the first of a number of unsuccessful Royal Fishing Companies (1632), the last of which (founded in 1750) collapsed in 1772, it was not until Holland lost its importance as a maritime nation that the Scottish herring fisheries
were able to extend their scope and prosperity. 1

Before this time, fishing was carried on from a large number of fisher towns, whose inhabitants combined fishing with crofting as a sideline. Many of the present villages owe their origin to this combined occupation; in some cases the inhabitants had been resettled from elsewhere and found the fishing more productive than crofting; so that the crofting eventually gave way to fishing as a full-time activity. 2 In a description of Buchan in 1721, Alexander Hepburn recorded that 'every parish on the Buthquhan (Buchan) coast hath one fisher town at least, and many of them have two ... The seas abound with fishes, such as Killing, Leing, Codfish small and great, Turbet, Scate, Mackeral, Haddocks, Whittings, Flooks, Sea Dogs and Sea Catts, herrings, seaths, podlers, gaudnes, lobsters, partens, and several others ... There is no such fishing round the Island as we have in our Buthquhan Coast nor any such place for drying salting and curing fishes for Export as the town of Peterhead.' 3

White fishing was the basic pursuit of all the fisher towns. The fisher folk went out in their usually undecked boats, fishing with lines, and risking disaster from storms which they were ill-equipped to combat. The pages of the Old and New Statistical Accounts make frequent reference to such disasters and the regular loss of life. 4 But although the white-fishing continued through the 18th and 19th centuries to reach its present

2. Hutcheson, Days of Yore, Chapter 5.
4. E.g. O.S.A. Nigg: In 1790 six men perished in a storm leaving 5 widows and 25 children. N.S.A. Elginshire: In a disaster in 1806, 21 seamen lost their lives, leaving 17 widows and 47 children. (NSA Elginshire, p. 157)
day importance, it was the superimposition of a rapidly expanded herring industry that transformed the fortunes of the 'fisher-touns'.

In 1718 an Act of Parliament of George I introduced the payment of bounties for catches of fish and for the building of fishing vessels, a system which continued until 1829. Nevertheless the situation did not improve greatly, and in the latter part of the century a number of accounts, particularly John Knox's 'View of the British Empire, more especially Scotland, with some proposals for the improvement of that country, the extension of its fisheries and the relief of the people', published in 1789, and the Parliamentary Reports of 1785 to 1805, testified to the backward state of the industry. The start of the great improvement came in 1786 when a number of influential Scotsmen founded the 'British Society to extend the Fisheries and improve the Sea Coast of the Kingdom', with a first object to erect fishing villages and ports on the mainland and islands in order to relieve the poverty and distress of the inhabitants. £40,000 was privately subscribed, and three establishments were made - at Tobermory, Ullapool and Wick. Houses, curing stations and wharves were built. 5 At the instance of the Society, the Government commissioned the great engineer, Thomas Telford (1757-1834), to make a full 'Survey and Report of the Coast and Central Highlands of Scotland'. 6 Telford made two. The first (1801) has disappeared without trace; the second (1802-3) is an interesting document which analyses the needs of the country in the way of communications (discussed in the next chapter) and harbours. Its effect was the appointment in 1803 of the Commissioners for Highland Roads and Bridges, and part of the responsibilities of the latter was the construction and improvement of harbours and

5. Anson, op. cit., 4-6.

fishing ports. Funds were forthcoming under the Scottish Harbours Act of 1806, which allowed the commissioners the balance of the Forfeited Estates Fund, a sum of about £90,000. Most of it went in loans to ports which were prepared to expend a sum equal to the loan on their improvements. In 1808 a Board of Trustees was appointed to direct and control the industry and in 1815 they were formed into a Board of Commissioners for British Fisheries. Between the work he undertook for the Commissioners and the work he did for the Fisheries Society and other private bodies, it is said that Telford was associated with nearly every harbour in Scotland. At Wick between 1801 and 1813 he designed the harbour, laid out a new town, built bridges and roads, and organised the water supply. In the district of this study he was employed in building ports, harbours and piers at Nairn (1816-25), Burghead (1806-12), Cullen (1817-19), Banff (1806-23), Fraserburgh (1808-11), Peterhead (1801-22), Aberdeen (1801-15) and (1829-34), Portlethen (1812) and Gourdon (1815-19).

Telford's extensive work both advanced and reflected the growth of the herring industry. In 1767 some Caithness merchants had experimented in catching herring with nets in the Moray Firth, where previously they had been caught merely with iron hooks for use as bait for the white fishing. The success of the experiment in the following years caused others to fit out sloops for the same purpose, and Wick became the chief centre of the herring fisheries. They extended from Caithness and Sutherland to the North East Coast in a rapid boom between 1808 (when the Bounty Scheme was revised), and 1829.

10. Anson, op. cit., 3-4.
(when it was abolished). Gutting and curing establishments were opened at Fraserburgh (1810), Macduff, Banff, Portsoy and Cullen (all in 1815), Lossiemouth (1819), Burghead (1817), Peterhead (1820). By 1832 Wick was still the leading herring port, to which many of the Moray Firth boats went; but in 1836 an epidemic of cholera started a drift to the south. Fraserburgh refused to allow the fishermen from Wick to bring the disease in with them. Peterhead took the risk and gained by it, growing rapidly in importance.

The herring industry continued to boom until the first world war, with fortunes inevitably varying from place to place. Thus the increase in size of boats and the localisation of curing facilities tended to extinguish the activities of very small settlements. And the migratory nature of the herring saw to the growth of great centres at certain seasons, when the fisherwives and girls followed the boats and worked in the curing establishments. The year's fishing normally began in the 'Scooth Firth' (Firth of Forth) at the end of January, worked round the west to the centres of Castlebay, Stornoway and Lochboisdale, and in early summer operated in Orkney and Shetland, with Lerwick as the centre. The 'Great Summer Herring Fishing' began in late June at Peterhead and Fraserburgh and other centres (e.g. Macduff, Lossiemouth) to north and south, the Moray Firth boats remaining as near home as possible. Fraserburgh, known as the greatest herring port in the world, might have 700-800 boats taking part in the season at one time, each with a crew of 7 or 8; with the addition of the curers and gutters, the population of the town used to be doubled in the summer months.

11. Ibid., 8
increased by slightly less. Then in the late summer and autumn, the boats went to the fishing at Yarmouth, returning laden with furniture and crockery for the annual festivities, courtings, weddings, processions, flute-bands etc. in December. 13

The introduction of steam drifters in the 1880's caused the largest expansion, although local opposition often delayed their general use. The bulk of the income came from exports of cured herring to Russia, Germany and many other countries in Europe. But the era of prosperity collapsed after the 1914-1918 war. The market declined; Russia, Holland and Germany developed their own herring fisheries. In the post war depression, many of the fishermen found themselves in debt to the fish salesmen and sold their boats. Those who held on in the hope of better days eventually had to sell the boats as scrap iron. 14 Buckie, which at its peak owned over 150 steam drifters, saw the numbers decline until the last one, used as a salvage vessel, was removed in 1956. Nevertheless, the herring fishing is still pursued, principally in the newer motor-vessels, more economical to run than the old steam-drifters, either solely or alternating with the use of these dual-purpose boats in seine-net fishing for white fish.

The white fish industry received a great impetus from the introduction of trawling, and it was this which made Aberdeen the great centre it still is today. Line fishing had been carried on from the villages of Torry and Footdee on either side of the mouth of the Dee, and fish brought in from the

13. James Leatham, Fisherfolk of the North East, 4-9.
nearby coast for many years. In 1810, the magistrates of Aberdeen had begun to erect houses for the Footdee fisherfolk - the footdee squares, which will be described later. 15 When trawling was begun in 1882, the villagers tried hard to stop what they considered 'an outrageous method of catching fish', 16 but a few less squeamish skippers saw its potentialities. In 1889 there were 13 trawlers working from Aberdeen; by 1929 there were over 200. Aberdeen became the third biggest trawling port in Great Britain, and the most important centre of the white fish industry in Scotland. 17

In recent years the increasing cost of running the trawlers, the obsolete character of the majority of them, and the decline in profits, is a commonly discussed cause of anxiety.

The impact of steam trawling and drift-net fishing had a serious effect on the towns and villages. The success of the former in Aberdeen dealt a blow to the small line-fishing villages nearby. Altens and Burnbanks, south of Aberdeen, lost their personnel to the great city. Elsewhere, too, the need of the boats for deeper and larger harbours forced villages either into extinction or into a subsidiary position as dormitories for the main ports. Those villages with no harbour, like Cairnbulg and Inverallochy, near Fraserburgh, or Portessie near Buckie, where the women used to drag the boats up on to the shore and in some weathers carry their husbands out to them to avoid their being soaked before a voyage, had to accept the dominance of their neighbours. The main centres became Aberdeen, Peterhead, Fraserburgh,

17. Ibid., 70-76.
Macduff, Portknockie, Buckie and Lossiemouth. Of these, Portknockie never recovered from the interwar depression and no landings at all are made there now.

The present situation and prosperity, where it exists, are largely due to the introduction of the Danish Seine-net since 1921. Operated by boats of 40-70 feet, it has resurrected the importance of inshore fishing, and the motor vessels developed to cater for it are now the normal feature of the harbours. Those towns which abandoned their steam drifters first and put their energies into seine-netting have recovered their prosperity. The outstanding example is Lossiemouth, which was the first port in Scotland to make the change. Between 1921 and 1956 it built up a fleet of over 100 vessels, which employ 600-700 men. Buckie, which clung on to its drifters, has more slowly recovered from the depression, but now has almost as large a fleet. It is possible that the seine-net boat may alter the fortunes of some of the smaller towns; for it can operate from smaller harbours than could the larger steam boats. Whitehills, near Banff, is an example of the re-emergence of a fishing centre with the new techniques. Where they have failed to help, it may be that the intransigent individuality of the inhabitants of a village or town has been responsible for its falling behind its more experimental rivals.

It is against this general background that the growth of the settlements has taken place. Their obviously distinct sectors can be related to the original, 18th century village, the early 19th century expansion or foundation, the lavish, prosperous building boom of the rich years of the 80's, 90's and the beginning of this century, the mouldering depression of the 20's and 30's with some intermittent rehousing, and the re-arrangement with Council housing in the last 10 years.

18. Ibid., 90-95.
SALMON FISHING

The widely renowned salmon fishing of the North East has also played its part in influencing the growth of settlements. It flourishes near Aberdeen, especially along the river Dee, where it has been pursued since early times, and to a lesser extent on the river Don. On most of the rivers and along the coast near the river mouth it is still a fruitful source of income. The Ythan and the Deveron are good salmon rivers, and the mouths of the Ugie and the Spey are highly important, while south of Aberdeen the little villages like Altens, Burnbanks, Cove Bay etc., which lost their vitality as white-fishing centres to the growth of Aberdeen, still retain a number of (usually old) fishermen, who combine salmon and lobster fishing with any possible catches of white fish. They fish from small undocked boats with bag nets; and when the boats are dragged up on to dry land in the coves, the nets are hauled up to the cliff tops to dry.

The salmon industry, which suffered from a glut in the 18th century, expanded with the export of salted salmon to Holland, France and Spain, and of unsalted salmon, packed in ice, to London after 1800. In Spey Bay, the Duke of Richmond and Gordon erected early in the 19th century the salmon station of Tugnet (see illustrations). The lease of this and the fishings along the river were worth £8,200 sterling to him each season (recorded in 1842). 'A spacious mansion for the gentlemen holding the lease, with an extensive court and range of buildings ... for every purpose connected with the fishings, occupies a prominent position on the beach near the mouth of the river'.

20. At Aberdeen, salmon have been caught at least since the 13th century.
21. N.S.A., Bellie, 121.
This salmon bothy, as it is now called, leases the fishing nowadays from the Commissioners of Crown Lands. Along the coast towards the east smaller bothies at Portgordon and Portessie also function in the summer months, the men going out early to place the stakes and bag nets. Features of the salmon stations are the ice houses at Tugnet and Portgordon.

These activities have a useful effect in giving seasonal employment to some of the local villagers. The Spey Bay fishing, for example, helps to keep together the small 'ferm-toun' villages at Bogmuir, Nether Dallachy etc. in the vicinity. The men combine their shift work on the river with gardening or small crofting, and it may be partly because of this long established custom that these villages did not undergo the transformation into large farms which has been described as symptomatic of the agrarian revolution. There, then, as on the Findhorn too and along the Kincardineshire Plateau, the salmon have affected the economic scene in a very practical way, giving employment to the coastal and river populations. On the Dee and the Don the emphasis is different. The great tourist value of the fishing brings a seasonal population of sufficient size to establish permanent hotels; and the Deeside villages have in the last hundred years expanded with the recruitment of retired people.

WHALE AND SEA FISHING

Whaling as an industry had a short career in the North East, flourishing mainly about the turn of the 18th and 19th centuries; but it did help the development of those places from which it was practised, viz. Aberdeen, Peterhead and Fraserburgh and Banff. It began in Aberdeen in 1753, and was so successful that by 1820 there were fifteen whaling ships, each employing
about 50 hands. The best year was 1823 when 14 vessels in one season brought back 1841 tons of oil. 22 In Peterhead whaling began in 1788, the one boat being employed in the Greenland and Davis' Straits Whale Fisheries. By 1821 sixteen boats were engaged in the business, and that year 1836 tons of oil were landed. 23 Fraserburgh and Banff functioned on a smaller scale.

But by about 1830 the whaling was on the decline for reasons which included the rise of the herring industry, the withdrawal of the Government bounty, the reduction of import duty on foreign oils, the reduced demand for oil when gas was introduced for lighting, and unfortunate losses of vessels and men in this risky and dangerous business. The notorious Press gangs were also active, removing potential sailors to the Navy. The last whaling ship disappeared from Aberdeen in 1865; Peterhead abandoned the trade in 1893. 24

OTHER COASTAL INDUSTRIES

Shipbuilding like most other industries has recently tended to become centralised. Formerly it was carried on in many of the villages along the Moray Firth and the East Coast. The shipbuilding yards at Kingston, Portessie, and Findochty, for example, have now disappeared or been incorporated into larger firms. Peterhead was building most busily from 1810 to 1860; but the industry declined by 1880. 25 Aberdeen rose to fame with the design

22. N.S.A., Aberdeen, 75-76.
24. Walton, op. cit., 177.
25. Ibid., 178.
in 1839 of the Aberdeen clipper; from then until 1848 its clippers competed successfully with the Americans and English in the famous China tea races. But although after 1869 (the opening of the Suez Canal) it began to be eclipsed by the Clyde as a shipbuilding port, it played its part in the changeover to steam and iron (1864–1882). The trawlers constructed after 1881 were a characteristic product. In the two World Wars building and repairs for the Admiralty added to the work on passenger and cargo boats, coasters, trawlers and drifters, colliers, dredgers etc., and — a speciality — steam tugs. 26

Today, Aberdeen has 3 main shipbuilding firms, and the industry continues at Peterhead, Fraserburgh, Sandhaven, Macduff, Banff (recently opened) and Buckie. Most of these are small yards (e.g. Macduff employs 92 persons) specialising in the construction of the wooden diesel-engined seine-net and dual purpose boats, but at Buckie, where 3 firms employ 539 persons, this work is supplemented by Admiralty contracts for minesweepers which may soon come to an end. 27 A recent addition has been the construction of the first modern steel trawler-type boat to be made on the Moray Firth.

Other industries associated with the fishing can be briefly summarised. Rope-making and the construction of barrels and boxes are mainly important in Peterhead, Aberdeen and Fraserburgh. The fish-manure business has long provided a market for fish offal (see Chap. 7) and is continued today. The fish-manure factory at Fraserburgh gives off a smell that must seriously

27. Banffshire Planning Office, Survey. (draft)
offset its scenic attractions. Curing and smoking of fish is an accom-
paniment of the flourishing ports; in the villages which have lost their
importance, e.g. Portknockie, Cullen, Sandend etc. the old fish curing
stations and kippering sheds are often a feature of the dereliction of the
harbour precincts. Canning is a more recent introduction, both for fish
and soups, the chief firm being Crosse and Blackwell's factory at
Peterhead.

The communications of the region have affected it both positively and
negatively according to the location and quality of the roads. seaside
cottages owe their position to them, towns have grown because the roads
and railways went there. Moreover the type of building is influenced by
the ease or difficulty of access. The early native tradition of building is
basically dependent on the necessity for using locally available materials
in the absence of routeways and transport to bring in materials from
elsewhere; and the more primitive native cottages are still found today
in the districts where communications have least improved. At the
same time, the development of transport has taken population away from these
glens, and affected the better served places by making imported standardised
materials more acceptable in building than local ones. The character of
the housing is changing and will change as a consequence of the removal to
proportionately east of local labour and transport. Moreover, some villages
are declining and will decline more because harnessed to them is isolation;
where in an earlier age speed of access was comparatively unimportant,
today it hard for a remote village to compete with its efficient neighbours.
The fishing villages, for example, that lie at the foot of a cliff,
sealed only by one snaking road, like Crovie and Fetterang, have had notir
Chapter 9.

Roads

So far the general physical background and the main occupations have been discussed, in an endeavour to outline those features which have most significance in placing and changing the settlements in the North East. The connection of one settlement with another, the efficiency of these connections and their convergence on a limited number of centres, are elements of the greatest importance in defining the settlement pattern. The communications of the region have affected it both positively and negatively according to the location and quality of the roads. Roadside cottages owe their position to them, towns have grown because the roads and railways meet there. Moreover the type of building is influenced by ease or difficulty of access. The early native tradition of building is basically dependent on the necessity for using locally available materials in the absence of routeways and transport to bring in materials from elsewhere; and the more primitive native cottages are still found today in the districts where communications have least improved. At the same time, the development of transport has taken population away from these glens, and affected the better served places by making imported standardised materials more economical in building than local ones. The character of the housing is changing and will change more because of the reversal in proportionate cost of local labour and transport charges; some villages are declining and will decline more because access to them is difficult. Where in an earlier age speed of access was comparatively unimportant, today it hard for a remote village to compete with its efficient neighbours. The fishing villages, for example, that lie at the foot of a cliff, scaled only by one snaking road, like Crovie and Pennan, have lost their
trade and are steadily contracting. To explain the pattern, it is necessary to give a brief account of the development of communications in the last two and a half centuries. (Figs. 9,10,11.)

1. Before the Turnpikes

The introduction of turnpike roads in Scotland dates from after the middle of the 18th century, the earliest Act of Parliament to authorise them having been passed in 1751. 1 In the North East the majority of these roads were made in the years immediately following the turn of the 18th and 19th centuries. They coincided therefore with the agricultural improvements and the expansion of the fishing industry, and were one of the chief means of effecting the change.

The situation before the Turnpike Acts was unsatisfactory, and seems to have been typical of the general decline in social standards and prosperity between the close of the Middle Ages and the mid-18th century. It has been pointed out that at the time of the Norman penetration of the North-East and throughout the mediaeval period, the communications were far better than in the subsequent era. 2 The incidence of bridges gives evidence of this. Over the Dee, where it was crossed by the Mounth Roads (see below) there were bridges at Kincardine O'Neil and Durris in the 13th century, at Aberdeen in the 14th century and at Invermuick. 3 Over the Don was the Brig of Balgownie. Over the Spey there was certainly a wooden

1. Handley, Scottish Farming, 114.
3. Ibid., 135 et seq.
bridge at Orton in 1232, maintained by a monastic hospice, which disappeared after the Reformation and was replaced by a ferry (hence its name of Boat o' Brig). The majority of these bridges had fallen into disuse in the 17th century and were not replaced until the great bridge-building period in the 18th and 19th centuries.

Generally, the roads in early times ran from North to South or vice versa, and accounted for the strategic importance of the sites of the mediaeval castles. Kildrummy, for instance, lies at the meeting of the roads converging there from the North, and meeting the route to the south across the Mounth. The Mounth is the east-west ridge of the Highlands along the south of the river Dee. The passes over these hills were traditionally of the greatest importance. There were nine Mounth passes, forming the main connection of Aberdeenshire and Banffshire with the south; and of these, the Cairnwell, the Cairnmount, the Elsick Mounth and the Calsey Mounth have become modern roads, the first and last ones being main routes in the North East. From the valley of the Dee

5. Simpson, op. cit., 137.
6. The Mounth Passes: numbered from West to East:

   (1) Cairnwell  Glenshee to Braemar
   (2) Tolmounth  Glencova to Glencallater
   (3) Capel Mounth Clova to Glentanner
   (4) Fir Mounth Tarfsdie, at head of Glensk to Glentanner
   (5) Forest of Birse Mounth Tarfsdie to Aboyne
   (6) Cairnmount  Fettercairn to Kincardine O'Neil
   (7) Cryn Corse Mounth Glenbervie to Durris
   (8) Elsick Mounth Netherley to Culter
      (used by the Romans)
   (9) Cowie or Calsey Mounth Coast, Stonehaven to Aberdeen

From Douglas Simpson, Province of Mar, p. 132.
Northwards the most important routes led up from Banchory and Kincardine O'Neil via Inverurie (a royal burgh) to the Deveron valley and Banff on the one hand, and via Alford and Kildrummy to Huntly (also on the Deveron) on the other. There the route met the Aberdeen-Strathbogie-Moray road (which also passed through Inverurie), and led through Fochabers across the Spey to Elgin. A third route led over the hills from Kildrummy to Mortlach (an early church foundation, beside Dufftown) and thence along the Spey and through the Glen of Rothes to Elgin. Another, internal road, connected the coastal towns, running from Aberdeen, via Newburgh, Peterhead and Fraserburgh to Aberdeen and Banff and thence westwards to Elgin and Inverness. If these were the principal routes into the eastern parts and from thence to Morayshire, the latter county also had another main line of communication with the south, along Strath Spey, through Badenoch, up Glen Truim to the Pass of Drumochter and thence down by the valleys of the Garry and the Tummel to the Tay Valley. 7

It is useful to outline these principal routes, because their points of intersection provide the locus for the older settlements, reflecting at the same time the inevitable influence of the natural land formation, valleys and hills, on them. The crossings of the river Dee saw the origins, for example, of Aboyne, Braemar, Ballater, Kincardine O'Neil and Banchory; the vital routeways meeting at Huntly saw to the strategic and economic importance of the Castle and town of Strathbogie (its original name); Inverurie became a Royal Burgh from similar origins. The later superimposition of another pattern of roads, running from east to west, reflected the growing importance of Aberdeen as a centre, and altered the relative importance of some of the settlements.

7. Cf. Roy's map, 1755; Moir, Buchan Roads, 88; Grant, Banffshire Roads; Matheson, Moray and Nairn, 78-9.
In addition to these roads, the country-side was threaded through with a large number of minor and parish roads, too numerous to mention. Some of the more important were the Drove Roads, by which cattle were driven southwards to England, and the roads which led to the all important Fairs, such as the Aikey Fair (near Old Deer), the Laurence Fair (Old Rayne), St. Serf's Fair (Gulsamon), St. Pollinas Fair (Inverurie), St. Andrew's Fair (Glass). Aikey Fair was, at the beginning of the 19th century, the largest fair in the North of Scotland. Held on the Wednesday following the 19th of July, it could attract 'as many as 10,000 persons, all attired in their Sunday best'; on that day 'fifty or sixty acres of Aikey Brae were covered with human beings, cattle, horses, and various kinds of merchandise'.

By the early 18th century, the condition of all these roads was notoriously bad. Even on the main routes, the mixture of loose stones and mud made transport difficult. The normal manner of constructing roads was to level the ground where it was hard and firm, and lay a causeway of rough stones in low-lying and soft parts. Vehicular traffic was almost unknown. Carriage was effected by horseback, and by horse-drawn sledges, and carts did not come into general use until the latter part of the century. Coaches were rarely seen. Grant of Monymusk

8. Alexander, Northern Rural Life, 80.
recorded that, 'In 1720 I could not, in chariote, get my wife from Aberdeen to Monymusk. Collonel Midleton (was) the first who used carts or wagons there.' 11

The poor quality of the roads owed much to the inadequate system of financing and carrying out their maintenance. By an Act of 1669, the males between the ages of 15 and 60 of each parish were obliged to work 6 days a year on the roads, providing their own tools, cart and horse. 12 This 'statute labour', administered by the Justices of the Peace, was unwelcome and did not work efficiently, even after the Acts of 1715 and 1718, when the matter was seriously taken up by the Justices in the North East. 13 So badly was the work done that eventually a man's labour could be 'commuted' for a modified money payment (reckoned at 3d a day). Thus a labourer could be let off for eighteen pence a year, and this sum be used to pay voluntary workmen. 14 From this system, the greatest number of the roads came to be known as 'commutation roads'; and even after the advent of the turnpikes, they remained the poor relations which linked settlements and farms with the turnpikes themselves. 15


13. E.g. by Lord Deskford in Banffshire ... Grant, Banffshire Roads, 1-7.


by the irritating habit of farm tenants of ploughing across the roads when it suited them. 16 For roads on the farms themselves, the tenants were responsible. 17

An important improvement was the construction of military roads after the rising of 1715, generally known as General Wade's roads, although Wade himself, who began the work in 1725 left it to his successor, Major William Caulfield in 1739. Wade's road from Dunkeld to Inverness (1727-9) opened up the access to Moray and Nairn from the central Highlands, from Ruthven Barracks (Kingussie) along Strathspey. Under his successor, the Cairnwell Mounth pass was re-formed as the military road from Blairgowrie via the Spittal of Glenshee to Braemar. From there it went across Glen Gairn to Corgarff Castle, another military outpost, along the 'Lecht' to Grantown-on-Spey, and on to Fort George (1748-50). From Grantown (Castle Grant) roads were constructed to Forres and to Aviemore to meet Wade's Inverness-Dunkeld route; from Corgarff a road led eastwards to Aberdeen. The Cairnmount Pass from Fettercairn to Potarch Bridge, near Kincardine O'Neil, and its continuation northwards to Alford, Huntly and Fochabers on the Spey was reconstructed about 1746; and from it communication roads led to Portsoy and Banff, and to Aberdeen and Stonehaven. 18 A projected road from Braemar westwards through Glen Feshie to Ruthven Barracks was intended to form a great East-West route; though never carried out, its line can be seen on General Roy's Survey of 1755. This map shows all

17. Skene Keith, 539. (cf. Milne in Buchan, Chapter 5).
the military roads and many of the others. 19 (Fig. 9) The bridges built with these roads will be discussed in Part III.

The work of Thomas Telford with regard to the fishing industry has already been outlined (Chapter 8). Perhaps the greatest part of his achievement, however, lay in the reorganisation of communications. In his report of 1802 he emphasised the need for a bridge across the Spey at Fochabers; along with bridges at Dunkeld (over the Tay), at Beauly and at Dingwall (over the Conon) this would link up some of the main lines of communication. 20 Under the Commissioners for Highland Roads and Bridges, he surveyed and carried out an enormous amount of work; it is listed in the Report of the Commissioners and statement of their transactions in 18 years, from 1803-1821 (when they closed down). 21 Telford was responsible for three main lines of road in the North East - the Findhorn Road (1809-13) and the Speyside Road (1809-12) in Morayshire, and the Alford Road (1816) in Aberdeenshire. In addition, he repaired and improved existing roads, and on them and the new ones, built or repaired some seventeen bridges, principally on the main routes over the Dee, the Don, the Spey and the Findhorn. These also will be discussed later; they made the beginning of the 19th century the great period of bridge building in the North East; and though a number of them have been replaced since Telford's time, they remain an outstanding contribution to the development of the region. The iron bridge at Craigellachie, on the Speyside Road (1813-14) is not only one of the most sound but also one of the most beautiful structures of its kind in the country.

19. Roy's Map of Scotland 1747-1755, 1"=2\footnotesize{\frac{1}{4}}\text{miles.} Photostat copy of Original in British Museum, in Aberdeen University Library, Sheets 5,6,8,9,12.


2. The Turnpikes and After

Although the first Act to set up turnpikes in Scotland dates from 1751, it was not until 1795 that an Act was passed for Turnpikes in Aberdeenshire. 22 The first turnpike was the road from the Bridge of Dee to the city, to complete the great post-road from Edinburgh to Aberdeen in 1796. The stretch of it from Aberdeen to Stonehaven was made into a turnpike in 1797. About the same time the North Deeside Road (1798) was built, to join the Cairnwell at Braemar. Another led to Tarland, and the Skene Road made for Alford on the Don, being later extended to join the military road at Corgarff. Others followed, and the whole turnpike system was constructed in the first half of the 19th century. There were turnpikes from Aberdeen to Inverness, via Inverurie and Huntly; from Huntly to Portsoy via Rothiemay and to Banff via the Bridge of Marnoch; from Huntly to Strathdon; from Aberdeen to Banff via Old Meldrum and Turriff. The great post road to Inverness was met at Elgin by turnpikes to Lossiemouth and to Rothes and the Spey, at Forres by turnpikes to Findhorn and Grantown. Elgin was linked to Banff via Fochabers and Portsoy after 1804. From Banff eastwards turnpikes connected it with Fraserburgh by the coast and Peterhead via Byth, New Pitsligo, Mintlaw and Longside. Fraserburgh was connected with Peterhead and with Aberdeen via Strichen; and Peterhead with Aberdeen by one of the first turnpikes, going by Cruden, Ellon and Bridge of Don. 23


These turnpikes were built in stages, under separate Acts and Trusts. In Buchan, for example, there were eight turnpike trusts set up under Acts dating from 1795-1837, and completing their roads from 1799 to 1840. By the time the toll system was abolished, however, in 1865, the result of competition by the railways, the North East had been completely refitted with an improved road system.

The roads were normally 'metalled', unlike the majority of the commutation roads. The description of their construction in the Reports for both Aberdeenshire and Banffshire are identical, and it can be presumed that the system was general. The centre of the road was a trench 14' wide (the 'metal bed') levelled and filled with stones, usually in 2"-3" cubes, covered with earth 'blinding' (this mixture forming the 'metalling'). On each side of this was a path of common earth or gravel, 13' wide, making a road with total width of 40'. The stone used in metalling was local stone, preferably granite. In fact, a lot of the roads were not so wide, a common width being 30'-34'. The modern 'Macadam' technique was taken up by Sir John Sinclair, as President of the Board of Agriculture, in 1810; but it was several years before 'macadamised' roads came into general use.

The significance of the toll roads can be briefly stated. They formed the basis of the present road system, the turnpikes having become main roads; additions have elaborated it without changing it. Secondly, the general direction of the roads altered to some extent the earlier

25. Skene Keith, 538; Souter, 282.
27. Alexander, 84.
lines of communication, Aberdeen being the centre of a radiating system of routes which reflected its growing importance. Whereas the earlier roads had a North-South direction, the new East-West trend shows a developing regional unity based on Aberdeen and Elgin. Thirdly the new routes made villages and towns other than the early points of intersection important centres for marketing and trade. The new planned villages (to be discussed later) such as Strichen, New Pitsligo, Dufftown etc. are to be found on the turnpikes, which often bypassed the older 'touns', e.g. Mortlach and Fintray, and helped their comparative decline. Fourthly, transport was given a rapid boost, and the mail coaches made business keener. The first mail coach reached Aberdeen in 1798; the first regular mail and passenger service between Aberdeen and Inverness, passing through Huntly and Elgin, began in 1811. Connections between Aberdeen and London were rapidly speeded up. Finally, the turnpikes left behind, even when their toll gates or bars had been removed, a lasting memorial in the shape of the toll-houses, which, converted into ordinary cottages still remain as one of the visual features of the region (see Part III).

28. Ibid., 94, 98.

1. Shown on Thompson's map, 1686.
3. Rampini, Moray and Nairn, 58.
Chapter 10.

Canals and Railways

CANALS

Canals are not today of any great importance in the North East. Only four were constructed, for varying reasons, and of these only one functioned on an industrial scale for a short period. But they did contribute to the growth of a town in one case, and to land reclamation in another.

The first seems to have been a canal planned by one of the great improvers, James Ferguson of Pitfour, in the late 18th century, running along the south of the parish of St. Fergus in Buchan and making a link between Old Deer, Longside and the sea just north of St. Fergus. 1 It was intended to continue it to Peterhead, but this was never completed; and though some shell sand was transported along it for a few years to inland farms, it had gone out of use by 1840. 2

In Morayshire, an important canal was the Spynie Canal, constructed with a view to draining the extensive Loch of Spynie, between Elgin and Lossiemouth - a loch big enough to have harboured the Bishop of Moray's boat in the Middle Ages. 3 In the fertile Laigh of Moray, the land it covered was thought to be profitable at the time of the second wave of improvements, expansion of farms and land reclamation, at the turn of the 18th and 19th centuries. The first draining had taken place in 1779, but was ruined by the flood of 1782. In 1807 the laird, Brander of Pitgaveny,

1. Shown on Thompson's map, 1826.
3. Rampini, Moray and Nairn, 58.
called in Telford, and the canal, taking the water to the sea at Lossiemouth, was constructed from 1808 to 1812 - at great expense as a result of a series of lawsuits about property boundaries. The immediate results were disappointing, only the clay lands at the loch's margin being really fertile; but improvements were carried out subsequently and the canal remodelled after 1860. 4 The Morayshire Brick Works, now defunct, made use of some of the clay made available by the work. The canal still functions. Nearby, on the other side of the Lossie, the Innes Canal was built about 1800 through the grounds of Innes House to drain the low land around the small Loch of Cotts. 5

The most important canal in the North East was the Aberdeenshire Canal, running from Inverurie to Aberdeen and thus joining the rich lands of the Garioch with the trade of the city. Projected in 1793, it was designed by Telford and after several set backs (including the collapse of 14 locks through bad mason work in 1805) was finally opened in 1807. It ran from the basin named Port Elphinstone, on the south side of the river Don near Inverurie, to a temporary basin at Aberdeen, extended by a tide lock to Waterloo Quay in the harbour in 1834. There were basins at Bridge of Dyce and Kintore and 17 canal locks reducing the level ultimately by 168 feet. The canal was 18 miles long, and had after improvements an average breadth of 25' and a depth of 3'9". Five aqueduct bridges and and 56 accommodation bridges were built in conjunction with it. It functioned until 1853, when it was superseded by the railway, and is now dry and in many places obliterated.

5. N.S.A. Urquhart, 45.
In its time, however, it fostered the growth of Inverurie, and considerable business was done between that town and Aberdeen. A 'fly', fitted up to carry passengers and light goods, operated daily. In addition, large quantities of lime, coal, dung, bark and bones were carried upwards to serve the farms in the Garioch, and oats, bere meal, wheat and building materials were transported downwards to Aberdeen. In its busy times between 1832 and 1838, up to 2,000 tons of stones and 500 tons of slates were sent annually to the city. 6.

RAILWAYS

Railways (see Fig. 12) first arrived in the North East from the South with the Great North of Scotland railway in 1848. In 1854, the main line from Aberdeen to Keith, via Dyce, Kintore, Inverurie and Huntly was opened; from this branch lines were built to Turriff (1857) and Macduff (1872); to Old Meldrum (1856); to Kemnay and the Vale of Alford (1859), thus expanding the export of granites. Buchan was served by a line from Dyce via Ellon and Maud to Peterhead (1862) and Fraserburgh (1865); at the end of the century a coastal line linked Ellon and Peterhead (1896). The Deeside line following the Dee to Ballater was built from 1853 to 1866. A small local line runs from Fraserburgh to Inverallochy and St. Combs (1903) crossing an ungated road in Inverallochy, on which a notice warns inhabitants to 'Beware of Trains'.

In Banffshire, from the main line passing through Keith to Elgin, junctions were made to Banff and Portsoy and subsequently along the coast by Buckie to Elgin (1860-1886). The local line from Keith to Dufftown (1862) was extended to Craigellachie (1863). The Highland line joined

    Skene Keith, 542-544.
    Alexander, 99-100, Appendix 3, p. 219-220.
Keith and Portessie via Enzie and Buckie, but the rails were lifted during the 1914-18 war and though they were subsequently replaced the railway was never reopened.

In Morayshire, the main line extended to Nairn and Inverness in 1858, and shortly after the connection was made to Craigellachie, along the Spey to Grantown and so to Perth and the South (1861). The main Forres to Grantown line followed. Local lines were built to Findhorn (1860) and from Alves to Burghead (1862). 1

This rapid advance in communications both stimulated trade and brought into being new small settlements. Granite could be easily transported to Aberdeen from the quarries on the Dee and Don and in Buchan. Small villages like Cambus O'May on the Dee (1874) were founded as stopping places. Others, such as Kincardine O'Neil declined temporarily because they were bypassed by the line; Torphins grew rapidly because the line went there instead of to Kincardine. 2

A number of the lines have gone out of use. The Highland line from Keith to Portessie has been mentioned. Since the 1939-45 war the line from Ellon to Peterhead by Cruden Bay has been closed (1949) and, more recently, the line from Inverurie by Turriff to Macduff, causing some inconvenience and irritation to Macduff's inhabitants. The main factor causing these closures and the general reduction in services has been the increasing use of the motorbus in the last thirty and forty years.

Walton, 204-208.

Its effect has been immense. Settlements like Kincardine O'Neil (above) have been helped back to life, and isolated villages have changed their character with the greater connection with the main centres afforded by this and motor transport generally. One of the more obvious effects has been the growth of suburban settlements, especially around Aberdeen.

Banff and Macduff had in the 17th and 18th centuries an extensive trade with the Baltic, with Holland and France, and with the Mediterranean, as well as with the Firth of Forth and London. In 1636 there were 10 schooners and 11 sloops belonging to Banff, and another 46 boats (including a brig, 8 schooners and 37 sloops) belonging to Fraserburgh, Gardesontown, Macduff, Portlsey, Portgordon and Arbroath—all registered at the Banff Custom-house. This number was later surpassed. Generally they exported grain, salt, herrings, salmon to London and herrings especially to Sweden, Russia, Holland and Hanover. From Sweden they imported iron and wood; from Estonia hemp; from Holland clay. In earlier times they are recorded as importing vines, especially claret, for the vapour and the 'trow.'

1. Barclay, Banffshire, 70.
2. Ibid., 71.
Chapter 11.

Coastal communications and Trade

The account of communications would be incomplete without reference to the extensive communications by sea and the trade carried on from the numerous harbours on the seaboard. Before the improvement of the roads and railways, sea traffic was easier and more economical; and a number of the now declining ports reached their maximum prosperity and growth before the days of the herring fishing boom, because of their importance in importing and exporting goods. Nearly all the fishing towns had the dual purpose of fishing and transporting agricultural and industrial materials and products. Their trade, which died out about the end of the 19th century, was of two kinds - coasting, and travelling abroad to the Continent and further afield.

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1. Barclay, Banffshire, 70.
2. Ibid., 71.
3. N.S.A., Banff, 42-3.
The usual lists of articles of trade in most of the ports include the export of surplus grain and meat and the import of lime, salt, timber and coals from Sunderland and Newcastle. Building materials also feature in the lists. Many of these commodities represent the activities of the coasting trade. Thus Banff, Macduff and Portsoy imported in the early 19th century large quantities of timber (‘fir, deals and staves’) principally from the Spey; Garmouth and Kingston on the Spey exported wood from the forests of Glenmore, Abernethy, Rothiemurchus and Glenfeshie while Findhorn exported annually as many as '2000 loads' of timber, mainly from the forests of Darnaway and Altyre. These villages also imported the usual coals, lime and salt.

Other building materials also travelled either short or long distances by boat, and the quantities (see Part II) can be related to the proximity of brickworks, quarries etc. Thus Banff exported many bricks and tiles (presumably from the Blackpots Brickworks nearby) and imported small quantities of bricks and tiles (possibly special types from abroad). It also imported slates. Macduff, on the other hand, being near the slate quarries, exported slates. Portsoy imported tiles as did Gardenstown. Findhorn, a busy centre for the Forres area farming district, recorded the import of 150,000 Ballachulish slates in 1842. Portsoy in earlier times exported its marble to France, and was a flourishing port for merchandise.

5. E.g. Newburgh (O.S.A. Foveran)
   Fraserburgh (O.S.A. Fraserburgh)
   Portsoy (N.S.A. Fordyce)
   Cullen (N.S.A. Cullen)
   Findhorn (N.S.A. Kinloch)


7. N.S.A. Speymouth, 57.


9. Souter, 293-4. Tables of imports and exports made out by the Custom-House (at Banff, 1802-1809.)


Today this trade has almost entirely disappeared from the smaller places. The railways, the coming of steam power, the concentration of the herring industry in certain centres, the development of road transport have combined to kill it. Now fishing remains alone in the more fortunate places; others, such as Findhorn, Portsoy and Banff have lost their trade altogether. The only regular import in the ports other than Aberdeen is coal. It is useful, however, to outline the earlier success of shipping in the fishertowns, because many of the fine 17th and 18th and 19th century buildings owe their origin to this prosperity. Portsoy harbour is surrounded by derelict, once fine houses and warehouses; some of the best early buildings in Banff date from the harbour's commercial importance.

Aberdeen has taken over most of this shipping trade in recent years. The granite industry was centred there, agricultural produce is exported and cured fish also. It has become moreover the distributing centre for the North East, and raw materials, foods, coal and imported building materials, such as cement, slate etc., often arrive by sea.

The general distribution of the North East harbours shows an interesting historical change in their position due to geographical reasons. Some of the earliest were in river estuaries, such as Aberdeen (Dee), Banff (Deveron), Garmouth and Kingston (Spey), Findhorn (Findhorn) and Nairn (Nairn). Only one, Aberdeen on the Dee Estuary, survives as a busy harbour. The rivers themselves have largely despoiled the rest. The Deiveron silts up Banff harbour, so that Macduff has captured its fishing; the Spey has frequently flooded Kingston and Garmouth, so that the latter's harbour is now no longer in existence; the Findhorn twice swamped the village of

Findhorn which is now the third village to be built (each time slightly further back) in its estuary; 13 at Nairn, the river had to be diverted. The other coastal harbours have made their way often despite the natural features. Only one, Peterhead, has developed because of its physical advantages as a big harbour. In 1735 the Convention of Royal Burghs recommended its improvement because of its position and ease of access; 14 Telford recognised these characteristics and followed on the work of Rennie from 1815 to 1822 in constructing the harbour. 15 In 184 Peterhead was selected as the best site in the North East for a National Harbour of Refuge. 16

15. See list of Telford's Works, Story of Telford, by A.W. Gibb.
Chapter 12.

Population (Distribution and Changes)

This section, on population movements and structure, is intended only briefly to illustrate the changes which have so far been outlined, and explain some of the main groups of people whose characteristics have been reflected in particular architectural or planning features. In view of the complexity of such a study, the first part is based on parts of a thesis on this subject by Dr. K. Walton of the Geography Department of Aberdeen University on 'The Distribution and Structure of the Population of North East Scotland 1696-1931'. This is supplemented and confirmed from some of the sources to which he refers; and additional information, especially for recent years, is taken from the 1951 Census Reports for the Counties in question, and from the Development Plan Surveys (partly unfinished) for Aberdeenshire and Banffshire. Footnotes are omitted when the reference is to these sources. 1

   Aberdeen Poll Book, 1696.
   Webster's Census 1743-1755.
   Census Reports 1801-1931.
   Old and New Statistical Accounts.
OVERALL POPULATION CHANGES.

The main trends in population changes may be summarised in the following periods: (i) 1696 (the date of the Aberdeen Poll Book) - 1755 (Dr. Webster's Census), (ii) 1755-1801 (the first Government Census), iii 1801-1851, (iv) 1851-1891; (v) 1891-1931; (vi) 1931-1951 (the 15th Census of Scotland). These periods are taken as convenient by Dr. Walton, up to 1931. The last one is considered briefly from the material in the 1951 Census. They are related conveniently to the periods of social change described in the preceding chapters: (i) to the pre-agricultural improvement era, (ii) to the first improvements, (iii) to the second stage of improvements, agricultural, industrial, fishing, transport etc. (iv) to the irregular movements of the latter half of the 19th century, with the fishing boom and agricultural depression, (v & vi) to the periods covered by the two world wars.

(i) The period from 1696 to 1755 showed a general increase in population, related not to agricultural improvements, which only began during these years, but, to various other factors such as partial recovery from the serious famines (the 'Seven Ill Years' in particular), the development of the home industries, and the founding of some new fishing villages along the Moray Firth. The greatest increases were in the industrial suburbs of the lower Don (over 100%), along the coast both in the East and North (over 50%) in the upland district of Tarland and the Howe of Cromar (over 100%) and in the Highland district of Strathdon (over 100%). The Highlands generally increased in population, with greater numbers of cattle and sheep, the hosiery trade, the pursuance of illegal occupations such as cattle thieving and distilling, and the establishment of several military posts. In general, it was a period of high natural increase.
(ii) In the period from 1755 to 1801 the population in general declined with certain exceptions, forming an irregular pattern which depended largely on the methods of the landowners. The agriculturally more advanced parishes showed a tendency to increase in population. Thus in the North East of Buchan the parishes continued to increase as before (varying from 10 to 25%); and here are found both agricultural improvements and the foundation of new villages (see Part III and accompanying Figs.), with their linen industries. Strichen parish increased through the establishment of Mormond Village (Strichen) in 1764; Monquhitter increased mainly through the establishment of the villages of Cuminestown, 1763, and Garmond. The coastal parishes continued to increase, Keith and Huntly grew considerably as the linen industry and agricultural improvements progressed.

Decreases in population, however, showed particularly in the Insch and Garioch Lowland, in the inland parts of Banffshire, in the Vale of Alford (26%) and the Western Uplands of Aberdeenshire (25-50%). In general the growth of population occurred mainly in the North of Buchan, in the fishing villages and in the manufacturing centres, especially Aberdeen; and it can be related to the agricultural improvements, the decreased mortality due to inoculation, the new villages, the growth of manufactures and the fishing industry.

(iii) From 1801 to 1851 the Census figures show an almost universal increase in population. It was the era of the second wave of improvements and reclamation of land, of the rapid expansion of the herring industry, and the granite industry, and of the new communications by turnpike and coaches, by canal and by ships, this latter fostering the export
of cattle. In Buchan, Peterhead and Fraserburgh the population grew by over 100% as the herring business improved, though some smaller places such as Rattray lost many of their people to the new centres of activity. New villages such as Longside (1801) and growing ones such as New Pitsligo (founded 1787) swelled the inland population. Banff also increased with fishing and agriculture replacing the declining linen trade; in Strathbogie the village of Lumsden was set out; in the Insch and Garioch Lowland, the new canal to Inverurie and the great improvements with the import of lime saw an increase of 50-100% in places. Many of the roadside cottages date from this period. The granite industry saw increases in Dyce, Aberdeen, Peterculter and the Uplands of Aberdeenshire. Elgin and Nairn increased, Forres' population fluctuated, and again those parishes in Moray where reclamation took place or new villages were founded, such as New Spynie (village of Bishopmill) showed a marked rise in population. In the Highland areas, however, notably in Upper Deeside, the population decreased perhaps partly through emigration to other parts when illicit distilling was suppressed. Aberdeen received a boost from the immigration of Irish labourers; at least 3,000 had settled there in 1834.

The peak of the increase however seems to have passed by about 1841, and a decline to have begun in the rural areas which was continued in the next period.

(iv) The period from 1851-1891 witnessed some increases in population but a relative stagnation and decline. This was particularly so in the rural areas, where the amalgamation of farms to form large holdings drove people to the towns. The serious set-back in agriculture at the end of the century, known as the 'Dismal Eighties',
when prices fell seriously, put many people out of work. Crofting in the Western Upland and Highland declined considerably; deprived of their home industries, such as stocking knitting etc. they were too far from markets in a time of improved communications, and these in turn helped people to emigrate to centres of better known prosperity. The industrial areas such as Aberdeen continued to grow, and some of the biggest increases were to be seen in the areas, such as Kemnay (164%) and Dyce (184%), where the granite industry was at its height.

The coastal villages which either had harbours big enough for the larger ships or built them during this period, expanded rapidly. Thus Peterhead nearly trebled its population, Fraserburgh doubled it. Gardenstown housed 700 more people; Macduff grew from 2,527 people in 1851 to 3,722 in 1891, Findochty from 450 to 1,148, Buckie from 2,500 to 5,849 in the same period.

(v) From 1891-1931, however, the figures show an almost universal decline. New techniques in agriculture, the development of the steam trawler, the agricultural and fishing depression played their part; and the losses of men during the First World War were considerable. The population declined in many parts of the Lowlands by 10 to 25%, the smaller fishing villages lost their people to the centres of trade, and the granite industry was past its busiest. The greatest declines were in the Highland areas (25-50%), reflected in the continued migration to towns. The census figures emphasize the growth of the burghs at the expense of the landwards parts.

(vi) This trend has been little altered in the years from 1931 to 1951. Although the whole of Aberdeenshire showed a small increase (2.5%) in population, this was more than taken up by the city of Aberdeen,
which took over territory previously outside it. The county, excluding
the city, declined by .6%, and had the lowest population (144,800) at
any census since 1851. The small burghs, however, all increased in population
varying from an increase of 1.7% in Peterhead and 7.4% in Fraserburgh to
25.9% in Turriff.

Banffshire's population has declined steadily since 1891, and has now,
like Aberdeenshire, the lowest population (50,148) since 1851. Here the
burghs take up a greater proportion of the population (56.7%). The landward
area declined by 12.9%, the burghs by 5.2%. The Highland parts in the
south showed the greatest decline, e.g. Inveravon parish - 28.3%, Cabrach
parish - 34%; the biggest decline in the burghs was along the coast from
Buckie to Portknockie.

Moray, however, shows a very different trend. The general decline
in population since the beginning of the century until 1931 has been reversed,
the population having increased by 18.2% to 48,218 in 1951. The population
is almost exactly divided between burghs (50.1%) and landward areas (49.9%)
the latter have increased most, 24% compared with an increase of 12.9%
in the burghs. Various factors, from the general prosperity of agriculture
to the expansion of aerodromes, must be taken into account. It is
notable that the burgh increases are in the coastal districts, the inland
burgh of Grantown-on-Spey and Rothes having shown a slight decline; and
the same trend is true of the landward areas, the Highland districts of
Cromdale and Knocklands having declined in contrast to the general increase
in the county. In Nairnshire the landward population declined, and the
only burgh, Nairn itself, increased by 11.7%.
URBAN POPULATION CHANGES (cf. Fig. 13)

The smaller towns were often little more than villages in the 18th century, as their population shows. Even some of the Royal Burghs were small and insignificant; Inverurie for example had only 237 people in 1696, Kintore had 160; Cullen at about the same time consisted only of one street about ½ mile long. Their development together with that of the new settlements, dates from the latter part of the 18th century. The following notes indicate their progress; they are given for those towns or villages which have either long been or recently been made into burghs. Some notes on villages of over 1,000 population are given with them.

Under the terms of the Local Government (Scotland) Act of 1947, all of the burghs in the area of this study are classed as 'small burghs', with the exception only of Aberdeen, which is a 'county of a city'. Of villages with more than 1,000 people, Aberdeenshire has eight (Aboyne, Bridge of Don, Bucksburn, Cults, Dyce, New Pitsligo, Peterculter, Strichen), Banffshire has two (Portgordon, Whitehills), and Moray two (Hopeman, New Elgin). The burghs and such villages can be seen in the map, Fig. (i) INLAND

Inverurie (Royal Burgh) expanded from 400 at the end of the 18th century to 3,000 by 1900 and to 4,500 by 1931, and to 5,000 in 1951. Kintore, which lacked Inverurie's benefits, notably the canal, grew from 160 in 1696 and 228 at the Old Statistical Account to 800 in 1911; its decline until 1931 has been reversed recently to 870 in 1951. Turriff similarly grew from small beginnings (200 in 1696) to over 2,000 in 1911, and then declined until 1931; by 1951, however, it had reached its maximum, at nearly 3,000 persons. Huntly grew rapidly with the linen industry in the
18th century (200 in 1696, 1,700 at the end of the 18th century (O.S.A.)
It too was at its peak in 1911, declined for a bit and has recently grown again to over 4,000.

Old Meldrum, Ellon and Ballater all grew steadily to become Police Burghs at the beginning of this century, and have maintained a fairly steady population since (approx. 1,000, 1,500, 1,000 respectively). The villages of over 1,000 people which have expanded in the last 50 years are mainly those in the vicinity of the city of Aberdeen.

In Banffshire, Keith increased with the erection of New Keith (c. 1750), Newmill (1759) and Fife Keith (1817) villages, forming the present burgh. Formerly a typical small 'toun' it grew to 1,000 people in 1793, and to 2,832 in 1831, and then after a temporary decline expanded to 4,753 in 1901. It fell until 1921, recovered a bit by 1931 and had declined again to 4,365 in 1951. Aberlour, founded as a planned village early in the 19th century, grew to over 1,000 population in 1901, becoming a burgh in 1894; it has declined only slightly since 1911. Dufftown, the great distillery centre, reached its peak (1823) in 1901 and then declined; but it is one of the few burghs in Banffshire to have increased its population since 1931. Aberchirder, in contrast, an agricultural centre, has declined steadily since 1881 and now has only 800 inhabitants.

In Moray and Nairn, Elgin has always been the chief centre, growing steadily until 1951, when its population was 10,624, although between 1921 and 1931 it lost slightly; Forres' career has been similar; it now has a population of 4,463. Grantown-on-Spey, founded in 1765, grew to a peak of 1,622 in 1921, and has since declined to just over 1,500. Rothes, an old settlement rebuilt and expanded in 1766, suffered badly in the floods of 1829 and lost many of its inhabitants who moved elsewhere; but as a
distilling centre it grew to its maximum (1621) in 1901, since then declining slightly. Nairn (1400 people at the end of the 18th century) now has a population of 4,700 and except for slight losses in 1871 and 1931 has maintained a steady expansion from the early 19th century. It is noticeable in Morayshire, that of the only two villages with over 1,000 people, Hopeman, on the coast, has lost population since 1901, and New Elgin, virtually a suburb of Elgin, has more than doubled.

(ii) COASTAL

The statistics for the fisher towns reflect the fortunes which have been outlined in the discussion of fishing, shipping and trade. Nairn with its double character as a coastal and landward town, has already been noted. The fisher towns of the Moray Firth were nearly all at their peak about 1911, the close of the boom period in fishing which preceded the 1914-18 war. Since that time, the tendency to decline or stagnate has varied from place to place according to the markets, the energy of the places themselves and the suitability of their harbours; the successful towns show clearly in the population figures.

Those which reached a peak in population by 1911 and subsequently declined include Nairn (4661), Lossiemouth (4207), Buckie (8897), Findochty (1785), Portknockie (1746), Rosehearty (1308), Fraserburgh (10,574), Peterhead (13,613) - the population shown being that of 1911. Of these a partial recovery since 1931 has been made by Nairn, Rosehearty (now a dormitory for Fraserburgh), by Fraserburgh itself and by Peterhead (in both of these industries having been opened); the most outstanding recovery has been made by Lossiemouth, which from 3915 in 1931 soared to 4947 in 1951, mainly as a result of its tremendous post war fishing development.

Burghead reached its peak in 1891, Cullen and Macduff in the same year,
Portsoy and Banff in 1881. All declined until 1931, since when Burghead, Macduff, and Portsoy have slightly increased in population to figures of 1368, 3322, and 1788 respectively. Generally the smaller places have moved to the larger ones, where the fishing has been concentrated; the large villages of Portgordon and Hopeman have declined in population in the last fifty years, and the very small ones such as Crovie and Pennan face extinction. Banff declined through the difficulties of its harbour, which, too small for the larger vessels after 1881, suffers from continual silting from the river Deveron. Macduff took over its fishing trade, and suffered the depression along with all the fisher towns; its recent expansion reflects its growing importance as a fishing port with its own market.

Allowing for the inter-war depression, the greatest rise in population on the coast since the early 18th century has been in the major ports of Fraserburgh, Peterhead, and Aberdeen. Fraserburgh grew from about 400 in 1696, to 1000 in 1793, and its population rose more steeply in the 19th century (10,574 in 1911) as a result of the herring and whaling industries and the improvements to its harbours. Peterhead, first feued out in 1593 for approximately 56 people, had about 400 at the beginning of the 18th century; with its fishing, trading, weaving, ubiquitous smuggling and popularity as a spa it had over 2500 people by the end of that century; its herring and whaling, its export of dried cod and other activities took it to over 13,000 in 1911.

The steadiest and biggest increase has been in Aberdeen. Its population of 5556 in 1708 had trebled by 1750, and it has steadily increased since then. It suffered, along with everywhere else, a slight fall after the First World War, partly accounted for by the very heavy war casualties and a decline in the birth rate. The present (1951) total of 182,729 persons is its
highest yet; it has become the largest city north of the Highland line and in northerly latitudes with the exception of Stockholm. Its growth has been to a great extent at the expense of the countryside and of the smaller villages; the graph (Fig. 13) illustrates the comparative progress of population in Aberdeenshire between the city and the remainder of the country.

From a detailed consideration of these changes, Walton constructed an interesting map of regional demographic types, which shows a marked correspondence with the fundamental Lowland, Upland and Highland zones in Aberdeenshire and Banffshire. It is shown in Fig. 13. It indicates clearly the high rate of increase in population of Aberdeen and its surrounds in the last 250 years, the generally high rate with fluctuation in Buchan, Strathbogie and the Lowland parts of Banffshire, including Keith, and the high increase followed by a decline in the 20th century of the partly-urban Inverurie district of the Insch and Garioch Lowland. In the Uplands, where the village development of 1750-1850 did not take place, the increase was moderate and variable and shows a recent decline. But the Highland zone throughout shows a variable but marked decline in population, a decline which is clearly visible in the number of deserted crofts and wasted glens of today.

1. Walton, Fig. 47, and p. 324.
Chapter 13.

Population (Divisions and Occupations)

The outline of population changes indicates the general movements of people and their concentration in certain areas during the last 250 years. To identify the main groups of people in this region would require a detailed sociological investigation of several groups to isolate some of the peculiar personal and social attitudes which have affected the shape of both houses and villages. In the absence of such a work, it is nevertheless useful to describe some of the more obvious features of social life and the typical groups of people for whom houses, farms and villages were built. For when all the physical and economic influences have played upon the changing style of the house, there still remains an important human factor which expresses itself in a way that distinguishes essentially similar villages from one another. One locality where this is notable is the group of fishing villages along the Moray Firth and East Coast. Not only are they culturally separated from the inland villages, but they have also discernible sub-groupings among themselves. The row of villages, for example, from Portgordon to Sandend has a different character from those both to east and west; and inside this group itself there are fundamental differences of background and temperament expressed in different dialect forms. A Portknockie man should not be mistaken for a neighbour in Findochty.

Inland there is an obvious distinction between rural and urban population groups. But it is not easy to define. The peculiar nature of Scottish villages and their relationships with burghs that may be essentially no different from the villages, and even in some cases be smaller than them, lends a partly urban character to agricultural villages and a partly rural one to the small industrial settlements. It is more convenient to treat
the 'countryside' with its complex of crofts, farms, hamlets, villages and small burghs in one group. The contrast to it, apart from the fishertowns, is afforded by the main urban centres, especially Aberdeen, and to a lesser extent Elgin. Yet Aberdeen has itself swallowed up a number of small communities (e.g. Old Aberdeen, Woodside, Torry, Footdee) which still retain their distinctive character and social independence.

A. INLAND

It has already been emphasised that the agrarian revolution of the 18th and 19th centuries deeply affected the social and physical organisation of the farm or farmtoun, the hamlet, the village and the burgh. The general arrangement of land and the holding of tenancies before this period has been outlined. The actual location and occupations of the people who made up the farmtoun and the hamlet have been described by Will Alexander in his 'Sketches of Northern Rural Life in the 18th century', using the evidence of the Aberdeen Poll Books and his own acute local knowledge of the North East. He produced evidence to show that the arrangement had remained to a great extent unchanged for several centuries. 1

Firstly, in the parish, there would be the laird, and his family and servants. Apart from them came the tenants and subtenants, with "generally a group, more or less numerous, of cottars and their wives, of 'grassmen' and their wives; and occasionally a 'lone' woman or two in a 'mailt house'." This formed the specifically farm establishment, with a readily intelligible relationship between the various members of the community.

1. Alexander, Northern Rural Life, p. 7-12.
The hamlet, or 'clachan' as it was known in the Highland areas, was a slightly more diverse settlement. Here were "sundry minor farmers, along with the weaver or 'wabster', and the tailor and smith, each of whom usually had his croft or piece of land to till, and his 'lair' in the moss to furnish him with fuel." These latter tradesmen were not, to judge from the Poll Book, as common as might be expected; for much of the clothing was home-made, very little iron was used before the agrarian improvements in the construction of farm implements, and few horses were shod. The smithies, which formed an important feature in the villages and hamlets until recent times, were largely a product of the late 18th and 19th centuries. The smith, who earlier could serve a very wide district, was sometimes paid in kind; in much the same way the miller, usually an unpopular member of the community, received a proportion of the meal of those farmers who were 'thirled' to his mill. Also in the hamlet lived the 'chapman' or 'pack-merchant', a prosperous person normally, who in the days before the concentration of trading in the expanded villages and the setting up of regular shops, travelled about the countryside from farm to farm, undoing his pack on the old kitchen 'deece'. An invaluable worker was the 'herd', often a man with some physical deformity or mental deficiency, who eked out a precarious living. References in the Poll Book often describe his occupation as 'herd in summer, but begs his meat in winter', or, 'herd on charity, his winter maintenance being gratis'. In addition there might be the 'tinkler', the 'horner', the 'pewterer' and the 'pyper', whose occupations are obvious from their titles.

The agricultural revolution made considerable inroads into the early structure of rural society. The old relationship of the members of the
farmtoun was broken down, workers were more concentrated either in villages or small groups of cottar-houses near the new enclosed farm, and a class of farmers emerged of a more independent and prosperous type. One of the influences upon this changing society was the importation of English farmers on long leases of land, many of them from East Anglia, to aid the landowners' efforts towards improving the land and fostering the spirit of improvement among the native farm-tenants. In his General View of the Agriculture of Aberdeenshire, Skene Keith divides the farmers into three categories. First, there were the 'ancient farmers' of native stock, who were honest, shrewd and sensible, fine marksmen, distinguished too by their irascibility and fondness for lawsuits and whisky. Secondly, there were the 'imported farmers' intelligent and industrious, who lived in good houses, took the lead in the agricultural societies, ploughing matches and so on, and talked enthusiastically about their own profession. They had come to be highly thought of in the county, but were generally less acute about cattle than the old farmers. Thirdly, there was a growing number of younger farmers with great zeal and knowledge, more active in experimenting and improving than the imported farmers, and avid in reading books, especially 'The Farmers' Magazine', and attending regularly at the markets. Near Aberdeen the situation was affected by the city, and numerous small cultivators, either merchants with their villas, gardens and hot houses, or small tradesmen with highly cultivated gardens, had transformed land which 40 years before had been a granite-strewn waste.²

Skene Keith also lists the numbers of people occupying various kinds of dwelling. On a large farm (of, say, 250 to 400 acres) the farmer's

² Skene Keith, 153-158.
household might vary from 15 to 20 persons, according to the number of children and servants, married or unmarried. On the smaller farms there might be 8 to 15 people, and in the large crofts or cottages anything from 2 (with no children) to 8 or 9 (with a typical large family). In his parish, the largest number of people in a farmer's house was 20, but the average number was 8; in a cottager's house, the largest was 9 and the average 4. 3

The agricultural changes are also responsible for another characteristic group of people on the farms. Although many writers of the 19th century pointed out the advantages of employing married workmen and housing them in a cottage near the farm, the main labour supply came from unmarried farm-servants, hired at one of the fairs for a term usually of six months or a year at a time. These farm-servants were housed on the farm in either a bothy (when they prepared their own food) or a chaumer (from the French 'chaumiere', a room used only for sleeping, two in a bed, while meals were taken in the farmers' kitchen). From the bothy came the name for the ballads sung in the evenings when there was little else to do. The bothies or chaumers are important parts of the plan of a farm, and they are still used, though to a lessening extent. A farmer finds it more advantageous today to employ married men who may obtain a County Council Agricultural Workers' house, and often the unmarried servants acquire lodgings there, while the farmer's wife, much to the disapproval of the older folk, is relieved of a lot of extra work and keeps the men with their dirty boots out of her clean kitchen. This situation varies considerably from place to place, and in some areas the chaumer is still occupied, though less crowded as the number of servants employed on the more mechanised farms diminishes.

3. Ibid., 160.
The New Statistical Account often lists the occupations of the people in different parishes, and from these lists one can obtain a fair picture of the rural society in the middle of the 19th century. For example, in the parish of Knockando in Morayshire, which contained the planned village of Archiestown, the majority of the population was employed as farmers, crofters, labourers and servants. In addition, there were 13 masons, 1 heatherer, 4 gardeners, 13 weavers, 7 tailors, 11 shoemakers, 8 blacksmiths, 10 wrights, 3 carpenters, 6 sawyers, 1 dyer, 2 carding-millers, 4 grain-millers, 1 forester, 1 carrier, 1 butcher, 1 groom and 1 fish cadger. Most of these tradespeople would reside in the village, and their presence both indicates the need for and explains the activities of the greatly extended or planned villages of the 18th and 19th centuries.

No doubt there were odd villages in which the activities of the inhabitants were not easily classified. The description of Tomintoul, or 'Tammtoul' by the Rev. John Grant, in the Old Statistical Account (1794) is so interesting as to warrant quotation. Tammtoul, he wrote, is "the only village within the precincts of this parish ... inhabited by 37 families, without a single manufacture, by which such a number of people might be supposed to be able to acquire subsistence. The Duke of Gordon leaves them at full liberty each to pursue the occupation most agreeable to them. No monopolies are established here; no restraints upon the industry of the community. All of them sell whisky, and all of them drink it. When disengaged from this business, the women spin yarn, kiss their inamoratos, or dance to the discordant sounds of an old fiddle. The men, when not participating in the amusements of the women, sell small articles of merchandise, or let themselves occasionally for day's labour, and by these means earn a scanty subsistence for themselves 4.

and their families. In moulding human nature, the effects of habit are wonderful. This village, to them, has more than the charms of a Thessalian Temple. Absent from it, they are seized with the mal de pays; and never did a Laplander long more ardently for his snow-clad mountains, than they sicken to revisit the barren moor of their turf-thatched hovels. Here the Roman Catholic priest has got an elegant meeting-house and the Protestant clergyman the reverse of it; yet, to an expiring method worship, it would be illiberal to envy this transient superiority, in a country where a succession of ages has witnessed its absurdities. A school is stationed at this village, attended by 40 or 50 little recreants, all promising to be very like their parents. The development of Tomintoul, whose business might still mystify one but for the size of its hotels and the stream of tourists' cars, will be described later. The Rev. Mr. Grant's description, however, impressed Sir John Sinclair sufficiently to make him single out Tomintoul in his Analysis of the Statistical Account as an unusual and exciting village.

This puzzle as to what actually is done in a village must be familiar to many who take an interest in them. John R. Allan, writing of the North East Lowlands, poses the question with reference to Aberchirder, or Foggieloan as it is locally known. "The traveller may care to stop and look at Foggie, as I have often stopped and looked; and he, as I, may wonder why enough people live there to make it a village. It is a question that may be asked about many villages between North Water Bridge and John O' Groats ..." There are salesmen and mechanics, instances that can be multiplied in any small community. "There is the man who gels tomcats and the man who is

good with roses, the woman who is tremendous with the spring cleaning and the girl who can sing 'Trees' as good as the wireless. And in fact there are good reasons for staying in a village; "one is a person and of some value in oneself, however small, even if only by weaknesses that make up a nice commodity of scandal. Money may be important, but the thing that matters is the power - being recognised as a person of some presence and value." 7

I recognise that feeling and wonder about Aberchirder, and have often asked the same question. In some villages it is very difficult to answer. New Pitsligo has a special air of entrenched inactivity; but New Pitsligo has always been in decline from its beginning, and has the stillness not of contemplation but of lethargy. In fact, the typical village is and has been made up from the group of tradespeople, labourers, retired folk and occasional eccentrics, whose mysteriously important occupations and diverse interests are the human factor in creating the informal character of the village as we see it.

In any case, the villages today are the descendants of that movement of the population which accompanied the improvements, either enlarging the old hamlets or filling the new planned villages. Sir John Sinclair recognised the advantages of villages and advocated their foundation; they would make the villagers contented and unambitious, give them the pleasures of society, excite social affections and introduce urbanity among them. Trades could flourish and a liberal education be imparted without infection from the bad company of towns. So, with some modification of these innocent ideals,

8. Sinclair, Analysis, 177.
9. N.S.A. Strichen, 689.
they grew. Strichen, a weavers' village, founded in 1764, had in it not only a 'good many weavers', but the usual 'good many shoemakers, house carpenters, masons, blacksmiths and tailors' in 1842. And a good picture of the activities of a parish may be obtained from the very full account of the Parish of Old Deer by the Rev. John Morison in 1840. In the parish was the old Kirktown of Old Deer (a cluster of houses by the kirk with a population of 211) and the two planned villages of Crichie or Stewartfield (573 people) and Fetterangus (216 people). The total population of the parish was about 4428. There were 259 families in the three villages (giving an average of nearly 4 persons per family) and 725 in rural situations (an average of nearly 5 persons per family). The employments are then listed as follows:

Apothecary 1
Bachelors and Widows above 50 years of age 92
Bakers 6
Blacksmiths 24
Brewers 2
Carpenters 46
Carriers 5
Clergymen 5
Crofters with a piece of ground 401
Dressmakers and seamstresses - about 20
Dyers 5
Excise Officer 1

9. N.S.A. Strichen, 689.
Farmers, or persons occupying a portion of land sufficient to employ one plough at least - about 140

<table>
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But there were other aspects of village life, of which Sinclair was aware; the village could be accused of causing the congregation of the most worthless and dissipated members of society; and it is possible to see an instructive relationship between the agrarian movement, the farms and bothies and the villages, with reference to one of the outstanding curiosities of life in the North East - illegitimacy. The high rate of illegitimacy in the North East (Banffshire for many years held the record for Scotland) is well known, and is locally taken for granted. John R. Allan has elsewhere commented upon the frequent presence of the farm daughter's offspring playing with the legitimate children of the house, 'to the wonder and confusion of the proper world'. In the 19th century, the situation was common enough to cause some alarm to the respectable members of society. W. Crammond, the schoolmaster at Cullen, produced a booklet in 1888 on 'Illegitimacy in Banffshire', which gave some interesting statistics for the years 1858-86. At a time when the percentage of illegitimate births in Scotland was 8%, that for Banffshire was 16%, and this percentage varied from the lowest at the sea coast (Seafield parish 7.3%, Cullen 10.4% etc.) to the higher ones inland (Inveraven 19.6%, Glenrinnes 19.7%. Grange 20.3%, Mortlach 20.4%, Keith 20.6%, Rothiemay 22.9%. Kirkmichael 23.4%, Marnoch 24.2%). His conclusions, after analysing occupations of mothers and fathers, suggested that the agricultural and village areas were the 'worst'. The bothy system, he points out, was not so very old, but originated from the time when the farm servants were banished from the 'ha'board'. The increased size of farms left many landless men wandering from one place to another,

while the better ones went to the towns to work their way into commerce or the professions. There was a notable lack of houses on farms for married servants, and fewer crofts for young people to start farming on their own. Often a farm servant lived in a bothy miles from his wife and family in the village; and in the village itself many labourers had come to reside as a result of pressure by the proprietors to concentrate them there. Aberchirder, mentioned above, is one of these villages referred to, and it seems to have had an altogether astonishing proportion of illegitimate children.  

Of the many regional groupings among the population, it is difficult to collect more than impressions of the people as one travels about, stays in various places, and reads stories and reminiscences of life and character. There are, for example, obvious differences between the people of the Highland areas and the Lowlands, between the inhabitants of Lowland Moray, Banffshire and Buchan; and something of this character is to me clearly reflected in the nature of the houses and small settlements of each locality. There seems to be something more than the inevitable dictates of the available materials and the location and configuration of the site in the differences between a low, lime-washed cottage of Morayshire and a tough, squarer and shorter granite cottage of Buchan; just as there is a contrast between the rather grim, logical, austerely bleak villages of the eastern area and the charming English villages which are so attractive to tourists. Again the physical influences do not explain everything; there is a degree of cooperation and delight in increasing the visual beauties of some English villages which does not often find a counterpart.

in the North East. It may be that the rugged, determined independence that won so much land back from waste and forced fruitfulness on the earth by unceasing labour has given little scope for the development of attention to patches of green space, planting, or strips of grass and shrubs in front of the cottages in a village street. It is noticeable that more of this care is shown in the richer, milder lands of Morayshire.

There is, however, one aspect of the population grouping which needs to be mentioned because of its definite effect on settlements - the religious divisions. The more detailed divisions into sects would require considerable study, but in the rural areas there are three main church organisations: the Church of Scotland, the Episcopalian Church and the Roman Catholic Church. Something will be said later of their buildings. While the Church of Scotland parishes cover the whole area, the Episcopalianists are particularly strong in Buchan and contiguous Lowland parts, the result largely of the great Episcopalian revival of the 19th century. The North East (Aberdeen accepted the Reformation much later than many other parts of Scotland) has always had Episcopalian leanings, and Buchan has been called 'the stronghold of Episcopacy in the North'. 13 Great difficulty was experienced in persuading the people in many parishes to accept Presbyterianism until well after the Revolution of 1688. A good example of this reluctance, leading eventually to force, was the famous 'Rabling of Deer' in 1711, when on the death of the last Episcopalian minister, the Presbytery attempted to force the settlement of Mr. John Gordon as minister of the parish.

The kirk party brought up some seventy supporters from Aberdeen, of which, wrote William Meston,

"Some were for this kirk, some for that kirk,
And some no mortal knows for what kirk,
Yet all of them their course did steer
To storm and take the kirk of Deer." 14

Nevertheless, they were roundly beaten off by the people with stones and sticks, and Mr. Gordon had to be ordained in a neighbouring church. 15

The Episcopalian strength in the 19th century led to the building in many villages of very good churches, including the church in New Pitsligo designed by G.E. Street (1871).

The Roman Catholic population, although spread thinly over the whole area, is mainly concentrated in parts of Banffshire and Morayshire, notably Glenlivet and the Enzie, parts of the Gordon Estate. The Dukes of Gordon held on to the Catholic faith for some time after the Reformation. At the time of the '45, practically all the proprietors along the coast, with the exception of Lord Braco, Lord Findlater, Lord Banff, Alex. Garden of Troup, Sir Robert Abercromby of Birkenbeg, General James Abercromby of Glassaugh and Alex. Gordon of Cairnfield, were Jacobites. 16 It was in the main these men on the winning side who carried out the great agricultural improvements, when the Jacobites lost their estates through confiscation. Despite the attempts at suppression of Catholicism, it remained a strong force. The Braes of Glenlivet, where the Catholics kept a seminary and school at Scalan during the first half of the 18th century (it was dispersed

14. William Meston, 'Mob Contra Mob, or the Rabblers Rabbled', published 1767.
or burnt down in 1726 and in 1746) are still entirely Catholic today, and
a large proportion of Catholics make up the population of the surrounding
areas. In the Braes of Enzie, on the border of Banffshire and Morayshire
near the coast, a Catholic chapel at Tynet took the place of the ruined
St. Ninian’s church as early as 1755, and the church of St. Gregory’s,
Preshome, was built by the Bishop of the time in 1788.

One of the most interesting features of the religious divisions of the
North East is the remarkable amity which exists between the different
religions. All the three main ones have a strong element of native church
practice. As far as the settlements are concerned, this friendly toleration
has resulted in the siting of churches and ancillary buildings in a way
which is not often found in Scotland. The Episcopalian church of New Pitsligo
has already been mentioned. Much more striking are the cases of the Catholic
churches of Keith (St. Thomas’, 1831) and Buckie (St. Peter’s, 1857).
The former (see illustration) has, from a planning point of view, the most
important and grandiose position in the burgh (originally a village);
the latter also on a fine site, is unquestionably the best piece of architecture
in the place, is a landmark both from land and sea, and has for a long time
been the pride of the predominantly non-Catholic population.
B. COASTAL

There is an old Aberdeenshire nursery rhyme which says:

"There wis a Hielanman axed at me
What, grows there berries into the sea,
As I could answer him again
What, grows there skate upon Cloch-na-ben." 17

It expresses in its way one of the most fundamental cleavages in the population, and the degree of strangeness with which the two groups regarded each other. The fisher communities have been traditionally isolated from the inland ones; and despite the general tendency in recent years to mix with them and change occupations, still retain their essential independence. This peculiarity is so well known and so easily observed that it is unnecessary to give many instances of it. It is frequently found in the pages of the Old and New Statistical Accounts, where the minister writing the account of his parish often refers, as if in passing, to the existence of a fishertown in his parish without taking any great interest in its activities or people. Sometimes, however, he does point out the cleavage. In the account of Kinloss in 1842, the minister says of Findhorn village, "The fishing people are here a distinct race, distinguished eminently, the female sex especially for their great civility, sobriety, cleanness and proper behaviour in every respect ..." 18 This is not an unusual tribute.

At Nairn, on the Highland borderline, the differences between the two populations of the town extended at one time to difference of language, the

17. Quoted in W. Paul, Aberdeenshire, p. 130.
18. N.S.A. Kinloss, 207.
landsfolk speaking Gaelic and the fisherfolk their own dialect of Scots; so that it used to be said ironically that in Scotland there was a town so large that the inhabitants at one end could not understand the language of those at the other.

There were good historical, social and economic reasons for the isolation of one from the other. The fishing communities were often founded in difficult places practically inaccessible by road; and before the great improvements in the road system their communications were almost entirely by sea. Hence their contacts and movements were made more among their own people and fisherfolk of other parts, including the Scandinavian countries. Furthermore, the extremely hard and dangerous life they lived gave little scope for making contacts on land. The following extract from James Thompson's Survey of The Scottish Fisheries (1849) gives a picture of these difficulties.

"Perhaps in the world generally it is not thought of how constant and intermitting the toil of the Scottish fisherfolk is, particularly during the 8 weeks of the herring season. In every seven nights they are but two in bed, on the Saturday and Sunday. During the other five, they may have a little slumber, for an hour or two in the middle of the day; this is from the time the nets are sent into the fields to dry, till when they have again to be collected and carried to the boat. The unquiet and restless closing of the eye, induced by fatigue, in a moment of rest at the fishing ground, partakes but little of the good of nature's sweet restorative - the bare bark of the boat, the couch - the canopy of heaven, for covering.

"When the herring fishing is over, and the fisherman with his family is returned to his own habitation, he has to set out for the mussel ground for the winter's bait; this accomplished, the hook and line is got in
order for the haddock. In this fishing there is more rest than in that of
the herring, yet the cold and wintry weather of November has to be
encountered.

"In the spring cod and line fishing, there is again a longer absence
from home ... " 19

Again, the nature of the work for both men and women was a good reason
for the general practice of intermarrying with their own folk. No girl
from the land could have undertaken with success the skilled tasks expected
of a fisherwife, and few fishermen would be rash enough to hinder his already
poorly rewarded livelihood by taking a wife whose hands were not accustomed
to the mending of nets. Similarly few farmers thought sufficiently highly
of the cooking of the fisher girls or their knowledge of farm work to take
the same risk. Although this ignorance is certainly often exaggerated,
the number of stories about it indicate that it did exist. A small
fishing village called Mavistown, east of Nairn, which existed until the
early 19th century, was renowned for its ignorance and simplicity. On
one occasion, it is said, a cow strayed into one of the huts at Mavistown.
Never, like most of the fisher people, having seen a cow before, the
inhabitants, noticing its cloven hoofs, horns and tail, thought it was
the devil himself come to take them. 20

The intermarriage of the fisherfolk was general; and even today
the fisher folk remain distinct. The fisherwives in the past did an
extraordinary amount of work. Those of Buckie, says the Old Statistical
Account, "live a most laborious life. They assist in dragging the boats

20. This and other stories quoted in Rampini, Moray and Nairn, 342-351.
on the beach, and in launching them. They sometimes in frosty weather, and at unseasonable hours, carry their husbands on board and ashore again, to keep them dry. They receive the fish from the boats, carry them fresh, or, after salting, to their customers, and to market, at the distance sometimes of many miles, through bad roads, and in a stormy season. When northerly winds, or a high sea, prevent the boats from going a-fishing, the men are employed at repairing their sails, mending their lines, or making new ones. It is the province of the women to bait the lines, collect furze, heath, or the gleaning of the mosses, which, in surprising quantity, they carry home in their creels for fuel, to make the scanty stock of peats and turfs prepared in summer, last till the returning season." 21 Other accounts record the distances, sometimes up to 15 miles, which a fishwife would trudge, carrying fish to sell, before breakfast; returning home equally laden with provision for the home. 22

It is possibly from this background that the women in the fishing villages developed their apparent dominance over the men. The New Statistical Account records this fact in Whitehills, Banffshire; the women were "allowed an influence which in any other condition of life would appear little consistent with either feminine propriety or domestic order. She usually claims the entire proceeds of the white fishing, which lasts 10 months of the year, as her exclusive prerogative, and in addition to baiting her husband's lines, she prepares fish for sale and hawks it round the country." 23 Most of these labours have today been taken off the shoulders

23. N.S.A. Whitehills
of the women, though they still, in the herring season, take on work in the fish curing centres. But they seem to retain a dominance in the home, and a hard-working vitality that is not always found among landfolk. This may account for the peculiarities in the use and maintenance of their houses which will be more fully discussed later. They keep them impeccably clean, and accumulate massive, well-made furniture. So clean is the house kept that often in summer the family will eat and partly live in the wash house at the back, to prevent the house being soiled. The exterior of the house is washed, as well as the interior, the brass door and window furniture shines brilliantly; and when the fire is not being used, it is not unknown for the housewife to varnish the sticks and paint the coal black, so that the ready-set fire will not look dirty. There are many instances of this care and attention, of this mania for paint; and it is something which distinguishes the fisher houses particularly.

One of the best known aspects of the closely-knit fisher communities is the use of nick-names, known as 'Tee-names'. This is in fact essential for, as a result of the continual intermarriage, almost everyone in a village may have the same surname. Thus there are many Buchans in Peterhead, Nobles in Fraserburgh, Ritchies and Downies in Rosehearty, Duthies in Cairnbulg, Strachans, Bruces and Cowies in St. Combs, Whites and Wests along the Moray Firth. Portknockie and Findochty and their neighbours are full of Smiths, Woods and Fletts. To enquire after a man named Mr. John Smith in one of these villages would be a waste of breath, unless one knew his tee-name; and these may be quite elaborate. They are acquired for widely different reasons, from the ownership of a boat to a

physical or habitual peculiarity. Offspring are usually known as the
property of the father, and this may be repeated, so that a man may be
known as "Jimmer's Jeemsie's Jimmickie", or "Annie's Dodie", or "Tam's
Jock's Willickie". In Portknockie there is a lady whose name sounds like
"Wosella", which is in fact "Woe's Ella", the result of a gloomy disposition
on the part of her father. On more official occasions the men are distinguished
by the names of their boats; on a war memorial, for example, the names
run something like this: John Flett 'Briar', James Smith 'Flower',
John Smith 'Harvest', Alex. Wood 'Susan', and so on.

The superstitions among the fisher folk are widely known, and still,
for all the usual pretence of laughing at them, play a part in directing
their daily lives. This does not directly affect the objects of this
study except in so far as they reflect the same strong conservatism and
tradition which has led to peculiarities in house design. More
significant in the formation of the villages is the religious practice of the
fisherfolk.

The Established Kirk does not figure so largely in their lives as it
does in those of the inland people. At one time, it is recorded, a section
of the church in the fishertowns was put aside especially for their use. 25
But in general they do not seem to have taken very much interest in organised
religion until the middle of the 19th century. In Buchan the strong
group of Episcopalians, noted among the landsfolk, is similarly found among
the fishers. Elsewhere, the fishertowns were swept by a great Revival
Movement about 1859, which reached Scotland from America via Northern Ireland.
The chief leader, James Turner, a Peterhead cooper, was claimed to have
converted more than 8,000 persons along the North East coast. This

25. Ibid., 17.
revival movement was followed by others, one of them being the Salvation Army, which captured a considerable number of converts. A highly important group is that of the Plymouth Brethren, which found its way up from England in the early 19th century. Later, however, a division occurred in its ranks, and the Brethren split up into 'Open Brethren', who will associate with other Christians, and 'Closed Brethren' who will have nothing to do with anyone not of their sect — except, say the unbelievers, when they can make money out of them. One finds that the Brethren, especially the Closed ones, are very unpopular among other sects, who regard them as hypocrites and petty tyrants. Nevertheless, their fanatically rigid lives give a flavour to the rest of the community. They have nothing to do with smoking, drinking or any books except the Bible; their prayers are long and strong, with frequent references to hell fire. Every few years a new Revival takes place, as they slip gradually away from the narrow path; and as the preacher details the torments of the damned in hell, they make a bonfire of their books and pictures and fall down groaning before God in an orgy of repentance. At a Brethren funeral the coffin is laid on trestles outside the house and an open air service takes place in which everyone seems to be condemned to everlasting perdition.

But whether the Revival is one for the Brethren or for a wider public, the life of the fisherfolk seems to make them particularly susceptible to this form of religion. In answer to the perils of the sea, or the more modern terror of not getting a good enough price for the catch, the linking of fortune with God's wrath or reward has a strong appeal. At one time it was quite common (and it still happens in some places) for the fishermen to break into hymns or psalms when they were shooting the nets or bringing in a catch; and the hymn would be taken up by other boats
until the strains of the hymn could be heard wafting across the sea as they laboured in the night.

As far as the villages are concerned, the religious organisations have their own characteristic churches or meeting houses, known by the Brethren often as 'Assemblies' or 'Churches of God', and depending for their prominence in the village on the exclusiveness of the sect. The houses, too, reflect the religion of their owners. Painted, or woven, framed inscriptions remind them either of a Biblical Text, of that 'God is love', or, more secularly 'What is home without a mother?' In nearly all the houses there is one especial feature which derives partly from religion and partly from some of the other factors mentioned above. The best room in the house is hardly ever used except for weddings and funerals. The best furniture is there, the most elaborate clock; everything is spotless and polished; but to try to get into it except on one of these special occasions is an impossible task. It is in effect a monument (for from a practical point of view, it is a senseless waste of valuable space, isolated even when the house is wildly overcrowded); and the monument stands to a way of life and habit of mind, a deep rooted tradition, about which it is unprofitable to ask a lot of questions.

Ibid., Fisher Boats and Fisher Folk of the East Coast of Scotland.
PART II

BUILDING MATERIALS
Introductory Note

In Part I a general account has been given of the nature and development of the North East Lowlands, and in each chapter some note has been made of the influence of the various factors upon the distribution of settlements and their buildings. In Part III these will be discussed in detail, and particular emphasis will be given to the effect of local building materials upon building types. This Part deals with the sources, types and general history of the available materials. References are given to the main sources of information upon this subject, some of the most useful being publications by the Geological Survey and the Department of Scientific and Industrial Research. I have also had the opportunity of seeing the drafts for the Development Plan Surveys in some of the counties concerned. Where references are not given this is often due to the fact that the information has come from observation and discussions with local tradesmen in the course of a number of field surveys.

Where it is possible to do so, a map has been drawn showing the location of the materials and the places where they are or have been worked. These maps (Figs. 14 - 18) are mainly extracted from the general map (Fig. 5) of the geology of the North East. They show the principal types of material - granite, sandstone, limestone, slates, bricks and tiles etc. But it is not possible to draw maps to cover what is probably the most common type of construction; for as far as vernacular building is concerned, almost any material can and has been used.

What/
What is normally classified as building stone is in fact either good or easily workable stone that has been available in sufficiently large quantities to make the walls of a considerable number of houses or other buildings. Of these the sandstones of Aberdeenshire, Banffshire, Moray and Nairn, the granites of Aberdeenshire, Banffshire and parts of Nairn, the slates of Aberdeenshire and Banffshire are the most important. But in addition to these, there are innumerable buildings constructed of beach stones, field stones, river boulders and old abbey and castle stones which have been used simply because they were ready to hand. The ordinary cottage owes its character not to aesthetic selection but to a purely practical selection of what is best and nearest; it belongs literally to its landscape. It is perfect organic architecture to such an extent that when it is abandoned its materials sink back into the stony or clayey fields from which they came; or, if its walls were made of limestone or were built with lime mortar, it may have been put back on to the fields to act as a cheap fertiliser. So, in an area geologically mixed, one sees walls correspondingly diverse, perhaps with Old Red Sandstone boulders, limestones, granite oddments, serpentine and a wide variety of slates, flagstones and schists, covered perhaps with lime harling or new cement, or patched with local or foreign brick. As the district becomes more remote the available materials become rougher and readier in the sense that they are simply ready to hand and must be used because in the past the most economical method of building one's cottage was to carry the stones the shortest possible distance. It will be seen that the development of transport facilities has altered this pattern and made an important change in the cost of local materials.
The most characteristic material of the region is granite, and it is therefore discussed first.

General

The term 'granite' is commonly used to describe a wide variety of rocks, mainly of igneous origin. Although to a petrologist the name has a limited and definite meaning, in industry the terminology is looser, and the word is applied in the building and road-making trades to stones which have a similar character for practical purposes as granite itself.

Granite is a coarse-grained igneous rock composed essentially of quartz, feldspar and micas. Formed by the slow crystallization of molten rock-material, it is an intrusive igneous rock, and consolidated at considerable depth under high pressure to give its characteristic massive grain. It is classed as a plutonic rock, in contrast to the volcanic types, the fine-grained rocks such as basalt which cooled quickly from magma that flowed over the surface.

Although an exact definition may be obtained by considering the diameter of the constituent crystals, it has been suggested that for economic purposes rocks included under the name should be of sufficient hardness to be directly comparable with granite; and be easily distinguishable from those of the sandstone or shale grades. Thus includes practically all the coarse-grained rocks that are considered for building or constructional purposes. It is not so wide in usage, as perhaps, in the technical standard.

CHAPTER 1

GRANITE

GENERAL

The term 'granite' is commonly used to describe a wide variety of rocks, mainly of igneous origin. Although to a petrologist the name has a limited and definite meaning, in industry the terminology is looser, and the word is applied in the building and road-making trades to stones which have a similar character for practical purposes to granite itself.

Granite is a coarse-grained igneous rock composed essentially of quartz, felspar and mica. Formed by the slow crystallisation of molten rock-material, or magma, intruded into the earth's crust, and consolidated at considerable depth under high pressure to give its characteristic coarse grain, it is classed as a plutonic rock, in contrast to the volcanic types, the fine-grained rocks such as basalt which cooled quickly from lavas that flowed over the surface.

Although an exact definition may be obtained by considering the diameter of the constituent crystals, it has been suggested that for economic purposes rocks included under the term should be of sufficient coarseness for the individual crystals of the ground mass to be clearly discernible with the naked eye. This includes practically all the rocks which are quarried as granites for building and ornamental purposes. It is not so wide in scope, however, as the British standard/

The constituents - quartz, felspar and mica, with accessory and small quantities of hornblende - have an effect upon the practical use of the rock. Quartz is the hardest constituent and the most resistant to chemical alteration, and is therefore desirable in good proportion for building purposes. The felspars possess a ready cleavage but improve the non-skid qualities of setts for roads. The micas cleave easily into their flexible flakes but are chemically stable, and are important for building in lending the glittering effect to the stone. Generally, the finer the grain the greater is the resistance to disintegrating agencies; but this is offset often by the desirability of the coarser grained types for aesthetic reasons in building and ornamental work. The colour of the granite, which greatly influences its economic value, is mainly controlled by the felspar, which causes it to vary from red to white and grey.

The Scottish granites which are of most significance in building (always allowing that a primitive country cottage may be built of practically anything) are classed as the Caledonian granites, intruded in late Silurian or early Old Red Sandstone times. The term 'Caledonian' designates the long period of disturbance which culminated at the close of the Silurian and the beginning of Old Red Sandstone times; and these granites are thus connected with the great mountain-building movements - the Caledonian orogenesis - which were outlined in Part I. The general folding and fracturing of the rocks along/

along N.E. to S.W. lines was associated with a large scale intrusion of the igneous rocks. It has been pointed out that subsequent erosion and denudation has made the granites available for extraction.

The general distribution of Scottish granites concerns this study only in so far as it is clear that the exploitation of granite for building purposes has depended in the main on transport facilities and accessibility. All the granites which have been worked on a large scale are in localities where they can easily be transported by sea. The main areas are the Aberdeenshire district, the S.W. part of the Southern Uplands (near the Solway Firth) and the Loch Etive - Loch Linnhe country in the west of the Grampian Highlands. Of these Aberdeen has been and is the most important centre. Accessible to the sea, and surrounded by country which admits of good communications to the quarries, it had the benefits of an important market in the city itself, and a flourishing export trade. The development of the granite industry in the North East is highly important both in its economy and the character of its buildings.

THE DEVELOPMENT OF THE GRANITE INDUSTRY

The widespread use of granite as we know it dates effectively from the middle of the 18th century, when gunpowder was first employed for blasting purposes. Before that time its use was restricted owing to the difficulties of winning the material, and it was principally surface boulders which provided the stone for rubble walling of mediaeval times. In important building in the Aberdeen district freestone was the desirable material; but there did/
did occur in the 15th century what has been called the Granite Interregnum, when the Cathedral of St. Machar in Old Aberdeen was rebuilt (1422-1440) with worked granite. The earliest granite ashlar in Aberdeen is to be found in the outside of the north wall of the north transept. This unusual activity explains the highly interesting use of modified Norman forms in the detail, and especially in the West window of the Cathedral - modifications dictated by the toughness of the stone and appreciated by the masons; so that St. Machar's remains a dramatic example of the direct influence of materials on local style. Some granite work was carried out about the same time in the undercroft of the church of St. Nicholas in New Aberdeen. But by the 16th century freestone had come back into its own, King's College Chapel (1500-1506) being built of Cove (Morayshire) Sandstone. The twin spires of St. Machar's also were constructed of sandstone.3

The second period when granite was used for work other than rubble walling was the great castle era of the turn of the 16th and 17th centuries. The remarkable group of North-East castles, which includes Craigievar, Crathes, Midmar, Castle Fraser and Drum is notable for the use of granite in dressed work; and again the detailing of these castles has a special quality of robust simplicity which derives from the inspired use of local materials.

But it was not until the 18th century that the granite industry flourished on a large scale. The first building in Aberdeen to be extensively built of dressed granite blocks was Gordon's Hospital/

Hospital, begun in 1739. Shortly after the '45 granite ashlar was introduced into the dwelling houses being built in Gilcomston, then a suburb of Aberdeen; they and the manse for professors in College Bounds and Marischal Street of about 1767 mark the start of modern granite work.

The agricultural improvements aided the expansion of the industry. The huge number of boulders cleared away from the fields in the reclamation of land, coupled with the need to build dykes for the enclosures (which made use of the boulders, sometimes in the form of 'consumption dykes' as at Kingswells) gave an impetus to the skilled craft of rubble walling and aided in the revival of interest in granite. But it was the demand from England which built up the export trade. The first shipment to London was derived from loose blocks taken from the lands of Torry, on the south bank of the Dee. In 1764, granite was specified for the paving of the streets in London; other English towns followed its example; and this demand for paving stones led to the opening up from 1766 onwards of numerous quarries in the neighbourhood. It was said that granite 'brought gold to Aberdeen'. Furthermore, the use in building had increased greatly. Although buildings of stone and lime were described by Gordon of Rothiemay as being general in the mid 17th century, there remained a considerable amount of timber building. After a great fire/

6. OSA, Nigg.
fire which destroyed the west side of the Broadgate in 1741, the town finally prohibited the use of wood for the outside walls of houses. Another impetus to the trade came from large Government contracts, such as that for the Naval Arsenal at Sheerness (1818). In the early 19th century other important public works - the Bell Rock Lighthouse, Portsmouth Docks, Waterloo Bridge, London Bridge and the city's own Union Bridge were constructed of granite. From the 1760's, when about 400 tons were exported annually, the production increased to about 12,000 tons in 1792. In 1817, the exports from Aberdeen to London were 22,167 tons; in 1821 they were 34,687 tons; and in 1868, 50,000 tons. By 1820 the quarries together were producing 41,000 tons annually; and the figures continued to increase. In the 1930's, for example, the granite output of North-East Scotland was about a quarter of a million tons annually.

The monumental part of the industry began about 1832. An Aberdeen business man, Alexander Macdonald, became interested in some specimens of ancient Egyptian polished granite, brought back by an explorer from Egypt, and deposited in the British Museum about 1820. Macdonald, who manufactured chimneys, paving stones and headstones, carried out experiments until he found a fairly quick method of polishing granite. In 1832 he sent the first monument of polished granite/

8. Watt, Aberdeen and Banff, 205.
10. OSA, Aberdeen.
11. Harris, G., Granites and our Granite Industry, 68.
granite to London; it was erected in Kensal Green Cemetery, and is still standing.\textsuperscript{13}

In 1795 machinery was first employed to remove the overburden from the quarries.\textsuperscript{14} By the end of the 19th century machinery had been applied to quarrying, turning, cutting and polishing. Pneumatic drills were later applied to squaring and ornamental work.\textsuperscript{15} The manufacture of machinery for this purpose became an important branch of the engineering industry in Aberdeen.

The prosperity of the granite industry has varied, both in general and in competing localities. The important quarries of the Don, such as Tillyfourie, Kemnay and Corrennie became profitable as communications were opened up. The Aberdeen - Inverurie canal at first, and the railways in following years, were a necessity for their exploitation. The markets for granite generally increased until the First World War. So busy, indeed, were the Aberdeen workshops, which were already bringing in granite from the surrounding country and from Peterhead and Pitsligo, that in 1884 they began to import more varied and colourful granites from Finland, Norway and Sweden to meet the demand. By 1914, there were 90 firms in the industry in Aberdeen. After 1914-18, however, a number of quarries closed as trade declined.

The setback was due to various factors. America, an important buyer, was developing its own trade and imposed tariffs on British granite. The English market was flooded after 1921 with cheaper granite from Germany, Czechoslovakia and Finland. Other British sources/

\textsuperscript{13} Mackenzie, Aberdeen, 230-231.
\textsuperscript{14} Esslemont, op. cit., 96-100.
\textsuperscript{15} Mackenzie, Aberdeen, 231.
sources, in S.W. Scotland and in Cornwall and Devon expanded at the expense of Aberdeen. High protective duties after 1932 helped in the competition against foreign suppliers, but despite this, the great days of the granite industry had gone. Shop-fronts and facings kept many manufacturers in work during the inter-war period. Recently a considerable trade has grown up in concrete blocks made with an aggregate of granite, thus using the enormous quantities of waste material, and in artificial stone, faced with granite; a smaller trade is done in granite dust as a glittering surface for harling.

WINNING AND WORKING

Before listing the main quarries for granite and describing the type of granite they produce, it may be useful to give a brief account of the methods of quarrying and working the material. The following account is based upon a useful concise description in the Third Statistical Account - Aberdeen16 - with additional observations.

The chief quarries in and near Aberdeen are Rubislaw and Kemnay.

At these the first operation is blasting, in its early days a highly dangerous job which caused frequent injuries to the men responsible for ramming home the powder. When loosed, the rock is classified, the larger blocks being reserved for monumental and engineering work and the smaller or poorer quality for setts and road metal. Medium stones may go for sills and lintels, while waste debris has a market as surface dressing for paths, and powdered crushed granite is used in concrete blocks, and notably in Adamite blocks for paving.

One of the main features (and one that adds greatly to the expense)/

expense) of the Aberdeen quarries is the great depth from which the stone has to be extracted. A quarry is shaped like a conical pit, and it has been said that the city of Aberdeen has been dug out of a hole at Rubislaw. Cranes or cableways are necessary to bring the stones to the surface. Horse-drawn carts were used at Rubislaw to bring up the stones until the quarry was 200 ft. deep. But in 1873, John Fyfe of Kemnay designed and erected a suspension cable-way with a travelling carrier. It was named a 'Blondin', after the tight-rope walker of that name. There are 4 Blondins working at Rubislaw, two lifting 3 tons, one 10 tons and one (erected in 1928) 20 tons. This last is supposed to be one of the largest in the world. It can do in 5 minutes the work that previously involved 3 cranes at the bottom and a 20 ton crane at the top for 75 minutes.

Street-setts are usually prepared on the quarry floor into pieces 18' x 12' x 8', which are then carried by cableway to the sett-makers bank, where they are cut into setts. There is also, at Rubislaw, a crushing and screening plant which turns out 500 tons of road metal in 8 hours in 1/16", 1/8", 1/4" and 1/2" sizes. The whole process involves only 3 men to supervise operations.

At the top of the quarry the blocks are again classified by size and quality. They are then cut by 's quarers' into the required shapes with pneumatic plug drills, bullwedges and hammers, and are despatched to the manufacturers.

In the manufacturer's yard, the rough blocks are first levelled. The main part is done by a Dunter Machine (or Surfacer), and the edges by hand with chisel and hammer. The block is then cut in a sawing machine to any required thickness. The cutting is done by iron/
iron grit agitated by a horizontal moving steel saw. With this the process is slow (1½" to 2" per hour); but it can be carried out more quickly with a double horizontal saw, or a circular carborundum saw.

The polishing of granite is done in three separate stages. The face of the block is levelled exactly by revolving cast steel rings over steel grit. The surface is next polished by using carborundum or emery in place of the grit, leaving a dull polish. Thirdly the bright polish is obtained by applying wooden blocks faced with felt over a layer of putty powder. The same machine, known as a 'Jenny Lynd' is used for the 3 stages. It consists of a revolving ring attached to a movable armature, which can move the ring to any position on the surface of the granite. Hand-polishing with emery may be substituted when it is impracticable to use the machines. For circular blocks, the granite is scabbled or dunted into the rough shape or even its final treatment with a turning lathe worked on the same principles as the 'Jenny Lynd'.

After this the polished stone may still have to be carved or shaped for ornamental work. This is the most skilled job in the whole process. Finally hand polishing may be necessary on dressed portions. To a limited extent the use of sand blast for designs on polished granite has supplanted some of the work of the skilled granite-dresser.

From this brief account it can be seen that the process involves a considerable number of skills. But, throughout, the basic knowledge upon which the working depends is knowledge of the lines/
lines of cleavage in granite, and this demands skill and experience. These lines determine the position of the bore to take the charge in the initial blasting process; they are the lines according to which the squarer and sett-maker shape their blocks; they are the limits within which the ornamental mason works. Their character is outlined below.

The important lines of cleavage in granite are commonly known in Scotland as the 'reed' and the 'hem'. The causes of these are somewhat obscure; for although clearly a number of mica flakes lying in one direction will help the rock to split parallel to the same direction, there are many cases where a good reed exists without any apparent parallel arrangement of the minerals. Nor do the lines necessarily coincide with important directions of jointing, and the joints themselves may vary enormously in their spacing in different parts of the quarry.

The reed and hem are planes parallel to which the rock readily splits, the reed being the direction of easiest cleavage and the hem, which is at right angles to the reed, being the direction of the second easiest cleavage. Other names for them are 'rift' and 'grain', or 'the first-way' and 'the second-way' respectively. At right angles to both, the rock is difficult to split and has a more uneven surface; this is known as the 'hard-way', the 'tough-way' or the 'head'. To split the block along the reed or hem, a blow is normally delivered perpendicular to the plane of the hard-way, at right angles to both the reed and hem - a manner often expressed by saying that the rock 'should/
'should be broken off the head'. 17

The method of cutting at the quarries is by means of the 'plug and feathers'. A selected line is marked on the stone, and a series of narrow holes are made along it with a pneumatic drill. The spacing and depth of the holes are decided according to the thickness of the block, and whether the reed, hem or hardway is being followed. Two half-cylinders of steel, known as the feathers, with thicker walls at the bottom and opening out at the top, are placed in each hole. A tapered steel plug is inserted between them, and a series of hammer blows on the plugs wedges them into the feathers and produces a straight split.

NORTH EAST GRANITES (DISTRIBUTION AND WORKING)

The location of the masses of granite in the North East Lowlands is shown in Fig. 14. They belong to the Caledonian group of granites; but the intrusions are complex and are classed as Earlier Caledonian (mainly the grey granites) and Later Caledonian (red granite). This complexity is shown in the close proximity of different colours and types of granite; so that in the large complex north of the Dee from Aberdeen to Ballater, which is the largest continuous outcrop of granite in Scotland, the variety of types has added considerably to the economic value of the area. There follows a list of the quarries, working or closed, corresponding with the map, with notes; they are grouped according to the Geological Survey's/

Survey's classification. Individual references are not given to written sources; the main ones from which the information has been assembled are the following:-


Memoirs of the Geological Survey:
- Sheet 75 - L.W. Hinxman, 1896.
- Sheet 85 - " " " 1902.
- Sheet 97 - J.S.G. Wilson, 1882.
- Sheet 87 - " " " 1886.
- Sheet 76 - " " " and L.W. Hinxman, 1890.
- Sheets 84 & 94 - J. Horne, 1923.


Harris, G.F., Granite and our Granite Industries, London 1888.


County Planning Offices' Surveys, for Aberdeenshire,
- Banffshire,
- Moray and Nairn.


New Statistical Account of Scotland, 1845.

Hill of Fare Complex.

1) Rubislaw Quarry, Aberdeen.

The quarry is said to date back to 1741. It is a large pit of oval shape, with a smaller pit on the floor. This form, which is typical of the larger quarries, is due largely to the thickness of drift, or superficial deposits and overburden; so that expansion, once the area has been opened up, takes place downwards - hence the blondins, described above.

The granite is a medium-grained, fairly dark, bluish-grey rock, with the three main minerals fairly evenly mixed. It is blasted by powder, and may break into blocks of 100 tons or more, which are cut into pieces up to 20 tons in weight according to requirements, and are then lifted out of the quarry by the blondin.

Rubislaw granite has been widely used in building work throughout the world, and also for monumental work. About 75% of the houses in Aberdeen are built of it. Other examples of its use include the docks at Portsmouth, Sheerness, and Southampton, and the Bell Rock Lighthouse. It is also widely used for kerbs, setts, paving, and as chips for concrete work.

2) Sclattie Quarry, c. 3 miles N.W. of Aberdeen, near Bucksburn.

This is one of a number of large quarries in the Bucksburn district. Like Rubislaw it consists of an oval pit (about 275 ft. deep), with a smaller pit at one corner of it. The stone is similarly brought up by blondins. It is a medium-grained, bluish-grey rock, slightly lighter in colour than Rubislaw, and slightly richer in quartz. It is used for monumental and building purposes, setts and kerbs/
kerbs, and the waste is sold for crushing.

3) Dancing Cairns Quarry, nr. Bucksburn.
This is slightly to the south of Sclattie, and though now disused produced a light blue-grey stone rather like Sclattie. It was worked for over 100 years. The stone was used for paving setts and a great deal for rubble work in building Aberdeen, where, incidentally, the types of granite used are often indiscriminately mixed. Examples of its use are the portico of the Music Hall buildings and the monolith of the statue of the Duke of Gordon, in Aberdeen.

4) Persley Quarry, nr. Bucksburn.
This is situated on the opposite side of the Don, less than a mile from Sclattie. It is a pit like the others, and produces a light grey granite, lighter in colour than any of the foregoing ones. It is used mainly in building in the form of dressed blocks.

5) Dyce and Tyrebagger Quarries, c. 2 miles N.W. and S.W. of Dyce respectively.

Both of these are now disused. The former gave a medium-grained, dark grey granite. The latter is a bright pink, fairly fine-grained granite, and was used for kerbs and paving setts; and its rubbish is used as roadstone.
6) Clinterty Quarry, near Blackburn, c. 8 miles N.W. of Aberdeen.

The quarry lies on the north side of the Kintore road, a little east of the village of Blackburn. It is a medium sized quarry, but is different from the usual pit quarries in being a fairly wide, shallow opening, worked by cranes and a light railway. The rock is greyish-pink and is rather soft. It is used for building purposes and is also crushed for aggregate.

7) Tom's Forest Quarry, between Kintore and Kemnay.

This quarry is now closed. It produced a light-grey granite, similar but a little darker than that from Kemnay.

8) Kemnay Quarries, c. 4 mile north-east of Kemnay village.

The Kemnay quarries are famous as the largest and best equipped quarries of the country. No. I quarry was started in 1858, and is a large, squarish pit 400 ft. deep with a smaller one on the floor as in the Rubislaw quarry. It partly joins on to No. 2 quarry, which was opened in 1868, and is at a higher level. The rock from both is a light silvery grey, medium-grained granite, that from No. I quarry being slightly finer, harder and more suited for polishing than the more easily worked stone from No. 2. Building stone, setts, and kerbs are produced; the best quality stone is sent to Aberdeen for cutting and polishing for monumental work; and recently a considerable trade has been built up in concrete bricks made from the granite dust and waste. The development of granite-concrete brick production is not unique, but is worth special note because of its increasing scale at the Kemnay quarries. They were a short time/
time ago producing about 65,000 of the bricks daily, in a range of colours from red to marigold, buff yellow and black. They have been widely used in the North East, and lately further afield; examples include the recent S.A.I. building at Leith. The stone is well known, having been used for the piers of the Forth Bridge in 1895, in the docks at Hull, Newcastle, Sunderland, Leith and many other places. The outstanding monument to it is Marischal College, Aberdeen, whose fantastic faces are a tribute to the skill of the masons in extracting a mass of detail from such an unwilling material.

9) Corrennie Quarries, S. of the Alford road, near Tillyfourie station, 5 miles east of Alford.

The quarries are high up on the hillside, and the stone is brought down by a light railway worked on the gravity principle, the descending loaded trucks pulling up the unloaded ones. There have been four openings, but only one is now used. Two types of rock occur, the lesser one, both in quantity and value, being a light grey. The main type however is a bright salmon-pink rock, very rich in quartz (at least half of it is quartz), and fairly coarse in grain. When polished it shows little specks of black mica, the salmon colour being lent by the felspar in the granite. The pink and grey are sometimes so closely welded together that a sett may be obtained which is half grey and half pink. Very large blocks can be quarried, as big as 20' x 10' x 6' on occasion. It is used for building, for monumental purposes, as millstones for paper, and as setts and as crushed stone. It can be seen in the Municipal Buildings, Glasgow, and in the Tay Bridge.
10) Tillyfourie Quarries, nr. Corrennie, N. of the Alford road.

These quarries are no longer used. They produced a bluish grey stone with a strongly marked grain, and were extensively worked. The stone was widely used for kerbs and paving setts, especially in London.

11) Raemoir Quarry, c. 3 miles N. of Banchory on the S.E. slopes of the Hill of Fare.

This is a fine grained, pink granite, which comes in rather small blocks. It was used in a memorial to Queen Victoria at Windsor Castle.

12) Craigenlow Quarry, 3 miles W.N.W. of Loch of Skene, near Dunecht.

The quarry produces a grey granite for use in building. It was used in the construction of Dunecht House.

13) Other quarries.

Granite has been in the past quarried at numerous other sites. Examples are the openings near Cambus o' May on the Dee, situated on the hillside above the main road. They gave a pink and grey medium grained rock. Another example is the quarry at Gask, near the Loch of Skene. This, like many other small openings, is used as a source of roadstone by the County Council.
Mount Battock

The large mass of granite which lies to the south of the Dee has in the past yielded a certain amount of stone for building, both for dressed work and more commonly for local rubble work in the cottages and farm buildings of the district. The somewhat inaccessible nature of the district has however much reduced the economic value of the stone. Before the recent war, there were quarries at Birsemore Hill, south of Aboyne, which yielded a peculiar coarse stone, very like Shap granite. Its large salmon-coloured spars of felspar could be up to 1" in length; and it was popular for polished work. Otherwise, openings are only used for roadstone.

Kincardine Granites

Some minor quarries also functioned south of Aberdeen itself, largely as a result of the stimulus given to this district by the original shipment to London of the loose stones at Torry. The trade however declined, like the fishing of the same area, as Aberdeen swallowed up its business. An extensive quarry was situated at Cove, 4 miles south of Torry, which gave a dark grey, medium-grained granite, much used in kerbs and paving. It finds a use now for roadstone. Two miles further north, at Nigg, a dark fine grained rock appears, which was used mainly in field dykes and agricultural buildings.
Peterhead

Peterhead takes next place in importance to the quarries in the Aberdeen district. The best known granites from Peterhead are those from the mass of granite that forms the coast south of the town. A coarse flesh-coloured rock, it is valuable as an ornamental and building stone, and is prized for polishing. The granite industry at Peterhead has now only a shadow of its former importance, when enormous quantities were exported to England, America and other parts of the world.

1) Stirlinghill, c. 3 miles S. of Peterhead, nr. Boddam.

Stirlinghill is the outcrop which has been most extensively exploited in the district. Immediately west of the main road, the hill is scarred by numerous openings. The coarse pink granite comes from two main quarries nowadays, the Admiralty Quarry and one other. The former is a huge shallow opening, the latter a deep narrow pit. The stone has been widely used, for example in the breakwaters of the Harbour of Refuge at Peterhead, both as crushed granite in large concrete blocks and as dressed granite.

2) Longhaven.

To the south of Stirling Hill are a number of quarries between Boddam and Port Erroll, facing the sea, on the Longhaven Estate. None are at present working, though in the past a lot of the stone was sent to London, and much was also used locally in building. Since the first World War, waste material from the quarries has been used locally for building. There were about 8 quarries, of which the most/
most important were Murdoch Head, the Gwight, Blackhill, and Whiteshin. The granite is red. Gwight quarry is said to have produced the finest ornamental stone ever quarried in the district.

3) Cairngall Quarry, 5 miles W. of Peterhead, nr. Longside.

Cairngall, now disused, was once one of the most important quarries of the Peterhead district. It started being systematically exploited about 1808, and yielded a fine grained, dark, bluish-grey granite, with white felspar and black mica. It had two great advantages, being a very handsome stone when polished, and being obtainable in very large blocks. It was used, for example, for the foundations of the Bell Rock Lighthouse. The block used for the sarcophagus of Prince Albert was over 20' x 8', while at St. George's Hall, Liverpool, there are eight pillars of Cairngall granite with shafts 18' in height, and each made from one polished block. Later, this production ceased owing to foliation of the stone.

4) Rora, c. 5 miles N.W. of Peterhead.

This quarry gave a darker medium grained rock, which was much used for ornamental and monumental work.

Numerous other small quarries have been worked in the area from time to time. For example, around Ellon and Slains there have been quarries of grey and brownish white granite for small local trade; another at Pitmedden supplied purely local needs.
Strichen and New Pitsligo

Numerous openings have been made in the Strichen - New Pitsligo mass of granite, and the character of the houses in both these villages testifies to the amount of industry which formerly obtained in this respect. The Episcopalian church in New Pitsligo by G.E. Street is a good example of the use of the local granite. Most of the quarrying has been done in the vicinity of this village rather than Strichen, and today it is only quarried by one firm in New Pitsligo, principally for the manufacture of concrete blocks. The quarries produced a fairly coarse, light grey granite, which frequently has a yellowish stain of iron oxide. The stone is rather soft when it is quarried, and is regarded as much inferior to the granite from Peterhead. But while it is certainly too soft for polished work, roadstones, setts, etc., it hardens considerably on exposure, becoming often a rusty brown colour, and can look very attractive in either rubble or ashlar walling. It has been used almost entirely for building work.

Normally, large blocks were not obtained, but blocks up to 10' long and 1' square have been known.

The quarries are all of moderate size. The most extensive were at Peathill, S. of the village. Other quarries are at Greenspeck Farm, at Lambhill, at Balnamoon - all to the east of the village - and at Sandhole, which was reputed to be the best of the quarries.

Various

In the Huntly (Strathbogie) district and the adjoining Banffshire Plateau, there are a number of minor outcrops of granite, which can/
can be seen on the map. Most of them have at one time been used for building or roadwork.

At Carvichen, one mile S.E. of Huntly, a quarry was formerly worked (it was still working in 1923) for a greyish-white granite. Five miles north of Huntly, building stone has been obtained at a place near Hillhead of Avochie - a hard grey rock. Near Aberchirder, which lies on a granite intrusion, a quarry was worked at Causewayend, for building stone, setts and roadstone. At Cairn of Ord, 5½ miles S.W. of Banff, is another of these small outcrops. It was quarried for rubble work in building and for roadstone, and is a pinkish or greyish fine grained rock. Portsoy New Harbour found some of its granite from a quarry at Boggie row, west of Portsoy.

**Grampian Highlands**

The remaining granite outcrops in the area of this survey are to the west and north west of the main granite quarrying region around Aberdeen and Peterhead. They belong to the Highland region outlined in Part I, and are of less economic importance.

In the upper reaches of the Dee is a large outcrop of granite in two main sections, classified by the Geological Survey as the Lochnagar and Glen Gairn Granites and the Cairngorm Granites respectively. The former occur to the north and the south of the river, west of Ballater, and are mainly pale pink granites rich in quartz. The Lochnagar granite has been quarried near Inver, about 3 miles downstream from Invercauld Bridge. At Braemar a similar pale pink, medium-grained granite has been quarried for local building purposes.
Known as the Auchindryne Granite, it is too closely jointed to yield large blocks. Further up the Dee, granite is also quarried at Inverey. These granites, together with the large amount of loose stones to be found on the hillsides, are responsible for most of the ordinary building of the neighbourhood.

The Cairngorm mass, which includes the mountains of Cairngorm itself and Ben Macdhui, has not been quarried on an economic scale, but again lends a character to the stone walls, etc., of the crofts at the edge of the mass.

Further to the North, in Banffshire and Morayshire, the Ben Rinnes Granite outcrops on both sides of the Spey. A number of small quarries (e.g. at Ruthrie and on Blue Hill near Aberlour) have been used in this outcrop in the past for local building work, but none are worked today.

In the counties of Moray and Nairn, there are also a number of outcrops which have been exploited for building work. These lie about Kinstreary, north of Grantown, in the Ben Rinnes mass west of the Spey, as outlined above, at Ardlclach, near Nairn, and in the Moy mass on the borders of Nairnshire and Invernessshire.

The Ardlclach mass is cut by the river Findhorn, and lies south east of Nairn. The granite is pink, and the quarry (lying near the Ardlclach parish church) was opened in 1932 for building and monumental purposes. At present it is still used by a monumental mason.

Nearer to Nairn, at Park, about 2 miles from the town, a smaller mass is quarried for roadstone and for making concrete bricks. It is a handsome pink granite, which was formerly quarried more extensively, in the present quarry and another, now disused, nearby. Polished pillars/
pillars of this Park granite may be seen in Inverness.

The Kinsteary mass, north of Grantown, was once extensively used for building, but no quarries function there today.

The Moy Granite was quarried in the past, in a quarry on the Inverness side of Moy station. It is a medium-grained grey granite, which can be extracted in moderate sized blocks. It was used for the railway viaduct over the Findhorn at Tomatin.

**SUMMARY**

While the large quarries have been one of the most important features of the economy of the North East (a feature whose value has seriously declined in the last few decades), and have produced the material for building in many of the towns and villages of the whole area, the importance of granite in building also spreads far outside the area under consideration. More granite has been exported in the last 100 years than has found its way into the buildings of the region. Furthermore, since the invention of the technique for polishing, granite has been the material especially for monumental work, and for monumental buildings - civic and public. Its use as a material for dressed work in houses is best seen in Aberdeen (Rubislaw granite), in the towns and villages along the Dee and Don, in and about Peterhead, and in the villages of Strichen and New Pitsligo. But granite has been used much more widely still. It has been dug out of small, often unnamed quarries wherever it was exposed by the erosion of the centuries, and gathered up from the fields in the/
the time of the great improvements in farming of the last two hundred years.

The vernacular, local buildings of the region display this constant use. Dressed work is only a fraction of the consumption of granite in rubble walling; for houses and cottages, farm offices, mills, bridges, and for mile upon mile of stone dykes to enclose the fields. It has been mentioned how in Aberdeen rubble walling is often composed of many diverse types of granite. Throughout the region it takes its character from the granite most easy to hand; but because of the variety of colour and texture of the granite to be found even in a small area, it often has a richness and diversity which is entirely due to circumstances. And these circumstances are reflected in the general distribution of granite buildings in the rural areas. With uncertain boundaries, they are in general to be found in the granite districts shown on the map; so that the granite dwellings of Deeside and Donside, of Aberdeen and the north east coast, of Ben Rinnes and its neighbourhood, contrast with the red sandstone houses of Fyvie, Turriff and the coast by Gamrie, or the yellow sandstone buildings of the Leigh of Moray.
CHAPTER 2

SANDSTONE

Hugh Miller, the great geologist, writing of his travels around Scotland in "The Cruise of the Betsey", gives a useful summary of the use of stones up the east coast to Elgin. Travelling that way, a stone similar to that at Elgin is left at Cupar, Fife - a yellow, architectural stone; then comes the deep-red sandstone of Angus and Kincardine; then the gneiss, granite, hyperstene and micaschist houses of Aberdeen and Banff; then the deep red ones across the Spey; and then the warm yellow stone of Elgin - "geologically the Cupar Fife of the North". (1)

This Moray Sandstone has, in the history of North East architecture, been, with granite, the most desirable and best praised building material in the region; at certain periods it has indeed been regarded as much preferable to the granite. But from the point of view of the generality of buildings, it is not the only usable sandstone; and Aberdeenshire and Banffshire have smaller deposits in clearly defined areas that gave a definite character to the local buildings.

The map (Fig. 15) shows the distribution of sandstone, and divides it into its geological classes. There are two main divisions: the Permo-Triassic sandstone of the Moray Firth from Burghead to Lossiemouth, and the Old Red Sandstone of the remaining pockets in the region. The latter divides again. Upper Old Red Sandstone surrounds /

surrounds the inland edge of the Permo-Triassic of Moray, stretching from east to west from Fort George, round Forres, through Elgin and so to the estuary of the Spey. The Middle Old Red Sandstone is more scattered. A large area occurs along the river Nairn, joining on to the Upper Old Red Sandstone, and smaller ones are found around Tomintoul, in the Cabrach, and around Rhynie in the Highland and Upland areas. In the form of conglomerate, the Middle Old Red Sandstone is deposited on both sides of the Spey from Rothes to the coast, in a smaller patch inland from Cullen, and in a major patch that stretches from Gamrie and Pennan on the coast inland by Turriff and Cuminestown to Auchterless and Fyvie. The remainder of Aberdeenshire is quite devoid of sandstone, and it is not until the boundary of the region, the Highland Boundary Fault that strikes the sea near Stonehaven, that the red, Lower Old Red Sandstone of Kincardine and Angus is met.

This contrast between the prevalent sandstone of Lowland Moray and Nairn, and the less good, isolated occurrences in Banffshire and Aberdeenshire accounts for much of the difference in architectural character between the two pairs of counties. The value put on the stones and the comparative difficulty of obtaining it is also testified to by the number of occasions when older buildings have been used as quarries for sandstone, particularly those whose original builders had taken the trouble to transport stone from the coast of Moray. The castles and religious houses of the mediaeval period were steadily gnawed away during the 17th and 18th centuries. Thus the stones of Urquhart Priory went into houses at Garmouth. Those of Kinloss Abbey were/
were sold to Cromwell in 1652 for the fort at Inverness; it was a "quarry since for almost all the old houses and granaries in the neighbourhood", and the abbot's house was taken down as late as the early 19th century for stones to build dykes. (1) Stones from Findlater Castle and its ancillary buildings were used on the neighbouring farms, (2) and the same application cleared most of the remains of the Abbey of Deer. (3) Dallas Castle was another recorded quarry, (4) the Castle of Blervie was demolished for materials for the new house. When the Castle of Burgie was pulled down in 1802 for the same reason, it was said that its strength was such that the cost of detaching the lime-mortar from the stone was greater than if new stone had been quarried. (5)

1. N.S.A. Kinloss, 204.
2. N.S.A. Fordyce, 187.
3. N.S.A. Deer, 149.
5. N.S.A. Rafford, 248-49.
The Old Red and Permo-Triassic Sandstones of Moray and Nairn have inevitably declined in use in recent times. Throughout the Middle Ages they were in great demand; Covesea, on the coast, supplied stone by ship to north and east and south, and in Aberdeen it was the most popular building material until granite came to be used extensively in the 18th century.\(^{(a)}\) Most of the big houses in Moray and nearby were built of it,\(^{(b)}\) and so was most of Elgin. Today it is quarried only at Cumingston, between Burghead and Hopeman, and at Quarrywood, just north of Elgin.\(^{(1)}\)

There were in the 18th and 19th centuries quarries at Newton, Quarrywood, Bishopmill, Spynie, Lossiemouth, Cumingston, and Covesea—all in the vicinity of Elgin.\(^{(2)}\) Covesea had supplied stone even in the 12th century to the church at Birnie, inland;\(^{(3)}\) still flourishing by the 19th century, it was sending stone everywhere from its own jetty.\(^{(4)}\) Quarrywood could produce stones of large dimensions and lovely creamy-yellow colour; Elgin Cathedral is said to have been supplied from it, and later Gray's Hospital at Elgin.\(^{(5)}\) Quarries were also worked at Pluscarden, on the ridge north of the Priory, and further inland at Dallas. At Kingsteps, about one mile east of Nairn, the Upper Old Red Sandstone produced the material for most of the houses/\(^{(6)}\)

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\(\text{\(a\)}}\) C.f. Gordon of Rothiemay, c. 1647: "all the houses or bridges that Aberdeen possesses are built of square cut stone ... from quarries situated on the Firth of Forth or in Moray". (in Macfarlane's Geog. Collections II, 507)

\(\text{\(b\)}}\) E.g. at Duff House, Banff, and the now-demolished Gordon Castle, Fochabers.

(1) Moray and Nairn Planning Survey (draft notes).
(2) J. and W. Watson: Morayshire Described, 5.
(5) N.S.A. New Spynie, 99.
houses in the 19th century part of Nairn;\(^{(6)}\) there were other sandstone quarries also in its vicinity.

This sandstone has not only a very attractive colour, but has the advantage of being fairly soft to work, together with the ability to harden on exposure. It can be sawn easily and has been in considerable demand since the war for work in connection with the Hydro-Electric projects in the Highlands.

On the eastern edge of Moray, on both sides of the lower reaches of the Spey and reaching south towards Rothes, the Middle Old Red Sandstone is a conglomerate stone, and has always been regarded as a much inferior building stone to its yellow neighbour. A rougher stone of local use,\(^{(7)}\) it can be seen in many houses in the vicinity of Fochabers: though Fochabers itself is not characterised by it, but by a great variety of other stones that includes the yellow sandstone of Elgin (see Part III). The conglomerate used to be known as the "red rock",\(^{(8)}\) and was extensively used in roads and garden walks; it is a fairly loose compound, and it is easy to break it down, some parts crumbling readily in one's hand. When used as a walling material, it can easily crumble from exposure, even though it may have seemed hard when first dug; and it is therefore normally covered with lime harling in the local buildings.

It is a finer conglomerate that occurs near Deskford in Banffshire (chimneys, lintels and rybats in the vicinity testify to its use), and in the more important deposit between Gamrie and Fyvie, straddling the county boundary of Banffshire and Aberdeenshire. This varies considerably/

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\(^{(6)}\) See previous page.

\(^{(7)}\) L.W. Hinxman and J.S. Grant Wilson, Geol. Survey Memoir, Sheet 85, 1902, p. 75.

\(^{(8)}\) N.S.A. Bellie, 117.
considerably in its quality. Where it is exposed, for example, in the crumbly cliffs that shadow the fishing village Gardenstown, it is a rough coarse material; further east at Aberdour it is finer, and around Turriff it is a very useful red consistent stone fit for most kinds of dressed work. The finer bands along the shore at Aberdour used to be quarried for local use in lintels, quoins and door-posts.\(9\)

Most of the houses at New Aberdour itself and in the village of Pennan at the foot of the cliffs are built entirely of it; where the lime wash has partly washed away it gives a picturesque pattern of red and streaky-white sgraffito on the cottage walls.

Near Turriff it is more finely used, and this whole district is distinguished by its predominant red sandstone houses. Turriff itself is mainly built of red Delgaty sandstone. It was quarried near Delgaty Castle - a quarry that also produced cope stones and mill courses for other surrounding parishes\(10\) - and at Ardin and at Quarryhill. In the parish of Monquhitter, the stone was quarried for building at Howe of Teuchar and near Byth House, although its capacity for decaying was recognised;\(11\) it can be seen still decaying in the planned villages of New Byth and Cuminestown. At Fyvie, this red stone also characterises the houses and church.

The conglomerate, (or "plumb-pudding stone"\(12\)), does not appear/

\(10\) N.S.A. Turriff, 984-95.
\(12\) G. Robertson, General View ... of Kincardine, 45.
appear again before Stonehaven, beyond the Highland Boundary Fault.

The Middle Old Red Sandstone of the three other sites is not conglomerate and is generally superior and less liable to decay. An excellent stone near Rhynie, Kildrummy, and Auchindoir used to be quarried, notably at Quarry Hill (Rhynie), and Quarryfield (Kildrummy); it could be freely worked for lintels, quoins and finer dressed work, and a whiter variety at Kildrummy was used in the "Snow Tower" at Kildrummy Castle. (13) In the Cabrach the stone was certainly quarried in the 18th century. (14) At Tomintoul it was quarried on a small scale (15), and can be seen in a number of the buildings in the vicinity, again used mainly for corner stones and lintels.

(13) N.S.A. Auchindoir and Kearns, 406.
(15) L.W. Hinman, Geol. Survey Memoir, Sheet 75, 1896, p. 34.
CHAPTER 3

LIMESTONE

The production of limestone for use in buildings is so connected with its production for other purposes that it is impossible to make a clear distinction as far as quarrying it is concerned. The map (Fig. 16) shows the distribution of limestone in the North East. The following section describes its main functions, both as an important industry in the region and as a building material. (1)

PRODUCTION AND USE

The uses of limestone are many. It is important in agriculture, in building, in making cement, in chemical and allied industries, in iron and steel manufacture, as marble, as roadstone, in mines, as rockwool, etc. Of these uses, it is its agricultural and building significance that is chiefly important in the region of this study. Scotland generally has three distinct types of limestone: the Carboniferous Limestones of Southern Scotland and the Midland Valley, the Cambrian and Jurassic Limestones of North and North West Scotland, and the Crystalline Metamorphic Limestones of the Grampians and South West Highlands. It is to this latter group that the limestones in the North East belong. Known as the Sandend Group they run in a long outcrop/.

outcrop from Tomintoul north east through Banffshire via Keith to the Portsoy neighbourhood, passing through part of Aberdeenshire, North West of Huntly. They form in effect a continuation of the Blair Atholl metamorphic limestones which reach up from there through the Devil's Elbow to Braemar and then turn east along the Dee towards Aboyne and Feughside. The rest of Aberdeenshire is poor in limestones. Moray and Nairn contain little of any value.

The Aberdeenshire limestones were at one time quarried and burnt for agricultural purposes. But they were of poor quality, and with the advent of the railways the quarries fell into disuse. For many years no lime or ground limestone has been produced, but some are now used for roadstone. The Deeside Limestone, which forms a large outcrop between Ballater and Aboyne, was quarried at Deecastle and Mains of Midstrath for agricultural lime; today only the former is used for roadstone. In the Corgarff and Glenbuchat districts of Upper Deeside, there are a number of disused quarries, which were formerly used for burning lime. Further to the north east, from the Correen Hills to Fraserburgh there are several isolated outcrops, most of which have been quarried despite their poor quality. They are exposed in the Correen Hills at Largie and at Old Meldrum, at Auchnagatt, Fetterangus, Strichen and Fraserburgh; in the form of calcareous schist they were extensively worked, and at Fraserburgh it was used as rock material for the concrete work in the construction of the improved harbour at the end of the last century. The blown sand between Fraserburgh and Peterhead, which is shelly in places, was formerly used for agricultural purposes.
The Banffshire limestones (in which are included the outcrops just over the border into Aberdeenshire, North West of Huntly), are some of the most important deposits in Scotland. For over 150 years their use in agriculture as fertilisers, especially around Keith and Dufftown, has been one of the essential factors in the prosperity of the region. A great number of quarries existed on farms both large and small; but most of these are now abandoned in favour of the more easily available lime from the bigger industrial quarries. In addition the lime is quarried for roadstone. Its former extensive use as building stone has entirely died out.

The limestone is classified under three groups. The Sandend Group of high quality runs from the Moray Firth at Sandend Bay inland past Fordyce for three miles, being then interrupted for 2½ miles by overlying Old Red Sandstone. It reappears south of the Kirkton of Deskford and continues south westwards to Keith and Dufftown. From there it extends a good distance up Glenrinnes and appears again around Tomintoul and the Braes of Glenlivet, and southwards towards Inchrye and Loch Builg. The Portsoy Group is of moderate to good quality running parallel to the Sandend Group and to east of it; further east again the Boyne Limestone is worked at Boyne Bay east of Portsoy. The present development of many of the quarries is hampered by a considerable overburden of boulder clay.

Of the Sandend Group, the limestones at Sandend Bay itself were extensively worked, and provided most of the lime for the building of the Caledonian Canal. At Craibstone, south of Kirkton of Deskford, and in several openings south west of Keith, there are disused/
disused quarries. The crofts and farms of Glenrinnes and the Braes of Glenlivet are commonly characterised by small disused limekilns where the crofters burned their own lime for fertiliser. Today the quarries at Goukstone (5 m. N.E. of Keith), Hillockhead (2 1/2 m. W. by S. of Keith), Glenisla (on the railway just S. of Keith), Richmond (Dufftown), Craighaulkie (1 m. W.N.W. of Tomintoul) are used for roadstone. Lime and ground limestone are produced at the quarries of Upper Towie (1 1/2 m. N.N.E. of Drummuir Station), at Parkmore (Dufftown) with a large modern plant, and at Blackhillock (1 1/2 m. S. by E. of Keith). The products of the two latter were once mainly given over to building; both made excellent plaster.

In the Portsoy Group a number of quarries, at Portsoy itself, at Woodside, Fortry Wood, Craiglethie and Muiryfold were once worked. Today the main work is at Limehillocks (1 1/4 m. N.E. of Grange Station), where the lime is of good quality and is produced as ground limestone. Broadland Quarry (6 m. S.S.W. of Keith) is no longer used.

The Boyne Limestone lies thickly on the coast at Boyne Bay (1 1/2 m. E. of Portsoy). The Limestone was worked for many years, burnt in the large kilns of the Boyne Limeworks near the Mouth of the Burn of Boyne, until 1914. Since 1945 the Quarry has been open again and ground limestone is now produced in a modern electric plant. The reserves are considerable.

Moray and Nairn are poor in limestone. A small outcrop of metamorphic limestone appears at Grantown on Spey; but further north there are two outcrops of cornstone. One, at Cothall in the Findhorn Valley (2 1/2 m. S.W. of Forres), is prominently exposed in the Upper Old/
Old Red Sandstone, and was once extensively worked for burnt lime. To the east and north west of Elgin another band runs to the coast, which was formerly worked at Stonewells and Nether Meft. The quarrying of limestone seems to have started in Moray about 1740 at Glassgreen. (1)

The present production can be summarised as follows:
In Aberdeenshire, Deecastle (roadstone);
In Banffshire, Boyne Bay, Drummuir, Limehillock and Parkmore (Lime and Ground Limestone), Craighaulkie, Glenisla, Goukstone, Hillockhead, Lochpark, Richmond and Rinafitin (Roadstone). All the roadstone quarries are operated by the County Councils.

COMMENT
To trace the pattern of the quarrying and use of limestone in much more detail would be unprofitable. In local building, what is important is that any available limestone was formerly used both as a building stone and as lime for mortar and rendering; and that this use, at its peak during the 18th and 19th centuries, has now changed (as a result of the concentration of the industry and the improvement of communications) to production of roadstone and lime for mortar and rendering only.

Its use as building stone can be seen in rough farm buildings all along the line of Banffshire limestone. Though this has completely died out, it was a good stone and crofters and farmers often speak of its excellent quality. A number of illustrations in Part III, from the Glenlivet area, show this use. In the mid 17th century, Gordon/

(1) J. and W. Watson, Morayshire Described, 1868, p. 5.
Gordon of Straloch noted this and indicated the different emphasis in importance it then had: "there is such abundance", he says, "that in many districts it is used for manuring the fields". (1) Along the Banffshire coast, where it is plentiful (18th century accounts often testify to its abundance there (2)), there are numerous houses built of it; Portsoy in particular has houses of the 17th and 18th centuries where it is the predominant material. The New Statistical Account also often records this use. (3)

But its importance for mortar and rendering grew steadily. Until the 18th century, this use tended to be more common in proprietors' dwellings than in general building work; one of the major improvements of the 18th century was its development for all classes of work, replacing the older system of clay-built walls, at first often as a lime herling on the outside of the "auld clay-bigging" and then progressively as the main constituent of the mortar (cf. Part III). Limestone not being abundant in Scotland as a whole, this trade developed its exports greatly and tended to concentrate at the major centres to the extinction of the small local quarries. At Keith and Dufftown, the big works at Blackhillocks, Parkmore and Tininver were at the beginning of this century producing over 15,000 tons of lime annually - mainly for building and plastering - and were supplying it by rail to all districts between Aberdeen and Thurso. (4) Nevertheless, the increasing/

(3) E.g. N.S.A. Boharm, 360. (Used for building stone and for calcination).
increasing use of cement during the later part of the 19th century (the original material patented as "Portland Cement" was produced by Joseph Aspdin in Kent in 1824, and it was some years before it came into general use in the North East of Scotland), helped to reduce the trade in lime for building. It had been used, for example, in making composition floors - a use which has entirely died out. Today it is frequently used with cement in cement-lime mortars on rural and coastal buildings, where it is said to counter the evil effect of the sea sand which is in common supply.

It may be useful here to give a brief note on the availability of sand and gravel. The prevalent use of sea sand in building has always been rightly regarded with disfavour and is responsible for many of the occurrences of damp in houses and of unsatisfactory plaster work and harling. Nevertheless, and often in blatant disregard of careful specifications, it is often still used.

The location of sand and gravel deposits has been very fully recorded in the Geological Survey Wartime Pamphlets,(1) and need not be given in detail for the purposes of this study. The glacial, marine, freshwater and windblown deposits can be seen in the general Geological Map (Fig. ). They consist mainly of fragments of the rocks in the region with some admixture from outside.

Some of the most important deposits are near Aberdeen, north of the Bridge of Don, where there is good clean, sharp sand; this supplies the place of greatest demand - Aberdeen itself - with sand and/ 

(1) For this area, J.G.C. Anderson, "Sands and Gravels of Scotland": Quarter-Inch Sheets 9 and 12 (Wartime Pamphlet No. 50), 1943 and 1945.
and gravel, and there are a considerable number of active pits. Further up the Don valley, near Kemnay, Kintore and Inverurie, deposits are also great, and are used to meet the demands of the small towns in that area. Other areas of useful material in Aberdeenshire occur near Ellon on the East coast, and at Fraserburgh. Apart from these there are scattered deposits throughout the county, particularly near the main rivers, which have frequently been used for local building.

Banffshire has extensive areas of sand near the coast, near Banff, Portsoy and Cullen, in which numerous pits have been dug to provide for local needs. Moray has, however, much more important deposits, both of sand and gravel, surrounding Elgin and stretching eastwards across the Spey and northwards to the coast. These are extensively dug for use in building and roadwork.
MISCELLANEOUS BUILDING STONES

Although nearly all kinds of available stone have at some time been put to use in rural and coastal building, it is useful to summarise some of the more common and some of the special ones that come within the vernacular building material range of anything from mud to granite and from straw to steel.

Beach stones of various kinds can be seen in many coastal houses, and around Spey Bay, there has been an extensive and highly skilled craft of walling with "boules", river stones that have come down the Spey and made great banks in its shifting estuary. These stones may be of very varied origin and colour; used either as they come or skilfully cut, they make some of the finest walls I have seen in all the counties. The use of field stones, both in dry stone walling and in houses, as one of the practical ways of clearing the fields, also brings variety to many buildings. In Birse parish, it was recorded that there were so many lumps of granite lying near the surface of the ground that there was no need to open quarries.

Often the field boulders might be erratics, deposited originally by glacial action, and this may explain surprising incidents in otherwise consistent walls. An unusual stone that has been used in building comes from the soapstone quarry on the Hill of Durn, near Portsoy.

This/

(2) N.S.A. Birse, 788.
This was worked profitably for some years in the making of baby powder; it is, I think, a kind of quartzite, and could be used, not for any dressed work, but in random walling. (2)

Of the Igneous rocks, various kinds of whinstone (whinstone is a quarryman's term for any dark-coloured rock, such as basalt, which can be used for road work or similar purposes) have been used. As a walling material, it is often mentioned, (3) and can often be seen. The common name for these dark, hard rocks was and is "Blue Heathens", which sufficiently describes their properties; and they always seem to be remembered by old masons and road workers with affectionate pride - a testimony to their toughness in younger days. The minister of Boyndie, writing in 1642, also knew them as "Beenie Blues". The method of breaking them, when the fields were being cleared, was to kindle a fire on the upper surface and then suddenly change the temperature by "an affusion of cold water" - like Hannibal crossing the Alps. (4)

Souter's General View of Banffshire describes a stone called Peasywhin found in large blocks near the surface of moors, which he describes as a granite. Hardening on exposure, it was, he says, used in most of the gentlemen's houses and had a variety of colours. (5)

Of the Metamorphic stones, quartzites and schists are often seen as walling materials. The finer grained quartzites of the andalusite-schist series were much used for rubble work around Fraserburgh and Rosehearty. /

(2) The Old Statistical Account suggests that this was used in stoneware. (O.S.A. Fordice, Vol. III, No. 4, 48)
(3) E.g. N.S.A. Fyvie, 317. One quarry could produce slabs as big as 10' x 2' and 6' x 4'.
(4) N.S.A. Boyndie, 223.
(5) Souter, General View ... of Banffshire, 57-58.
Rosehearty. (6) Further west on the coast there is great variety - pebbly grits near Macduff, schists and gneiss around Whitehills and Portsoy, quartzites around Cullen, (7) mixed in with slates and flags in the walls. At Portsoy, for example, the old 17th and early 18th century houses near the harbour reveal in their partial ruination all sorts of slaty materials. The Ogilvie building (D.S. 1726) has rybats of sandstone, walls of quartzite and granite, and streaky schists in the relieving arches over the lintels. Inland, the andalusite-schists of the Correen Hills were once used locally for flagstones, the more fissile bands being used for roofing instead of slate. Quarries existed at Correen itself and at Gallows Top. (8)

The most interesting of the metamorphic rocks is the occasional marble. There are references to quarries of marble in former times at one or two localities, (9) but the most important was on the shore at that geologist's paradise, Portsoy. Portsoy has everything in the way of stone, as the houses and cliffs tell, and an extraordinary collection of samples can be cut in a few hours' work near the harbour. Here the Banffshire limestone runs to the coast, and is greatly metamorphosed into marble - a predominantly green or yellowish-green serpentine.

(6) J.S. Grant Wilson, Memoir of the Geol. Survey, Sheet 97, 1882, 14.

Also mentioned in the parishes of Keith and Mortlach (Souter, op. cit., 56).
serpentine that runs North-Easternly into the sea at Marble Quarry, nearly 200 ft. broad, in a series of stacks. It has been described thus: "The more westerly of the Portsoy beds of Serpentine is highly variegated, and though difficult to obtain in large blocks, is probably the most beautiful and variegated known. It was long wrought by a French company, and the pillars of the Great Hall of Versailles are made of it. The admixture of colours of all tints except bright blues is beyond number. A stone with a dark green basis sprinkled with bright red pseudomorphs of Olivine, or of Augite, and pale green markings, predominates towards the west. A pale green nephritic base with interlacing veinings of dark green Precious Serpentine, and nodules of pale olive-coloured Steatite, occurs in the centre. The Precious Serpentine is sometimes studded with blood-red spots. Verdigris-green, with blue-black dendritic markings, is found at the east ..." (10)

Its history is frequently described. "There is much marble, or rather jasper, at Portsoy, quarried in the ordinary manner, and manufactured into chimney-pieces, funeral-monuments, tea-cups, sun-dials, etc. Upon the first discovery, much of it was exported to France, and it is said, there are two chimney pieces of it in the palace of Versailles, and that it became fashionable in France; but the family of Boyne overstocking the market, it went out of fashion, and a ship load of it lies neglected on the banks of the Seine, as a gentleman who/

who saw and knew the stones told me". (11) In the early years of the 19th century it was still being used for monuments, chimney pieces and toys. (12) The New Statistical Account mentions that it was known as Scottish Marble, and that, though it was not now wrought on a large scale, there was "an intelligent lapidary in Portsoy (Mr. Abraham Clark) who forms it still into a variety of small ornamental pieces, such as obelisks, urns etc." (13) Such small uses are now its only occasional function. It was, however, used even as an ordinary walling material, and can be seen in nearby cottages. But, a local mason informed me, it is a rotten building stone with too much waste, which cracks all over and always throws off the harling - which is why it can usually be seen in nearby cottages.

(12) Souter, General View ... of Banffshire, 56.
(13) N.S.A., Fordyce, 180.
INTRODUCTORY

As in the case of the next chapter - Bricks and Tiles - the main part of the description of Slates in the North East is taken from a Geological Survey Wartime Pamphlet.\(^1\) This is a valuable booklet, the more so in that hardly anything else has been published specifically dealing with Scottish slates. The principal sources of further information are various Geological Survey Memoirs. The following account is expanded from these sources, from descriptions of slates in the Statistical Accounts, from County Reports and local surveys and histories, as well as from observation.

First, it is useful to relate the North East Slates to those of Scotland as a whole. The Scottish Slate belts enter into the core of the ancient mountain-range which at one time extended north-eastwards across the Highlands to Scandinavia. In contrast to the slates of Wales, they are generally assigned to a pre-Cambrian date.

The materials described commonly as slates and which have in the past been commonly used in roofing do not all belong to the true slate group. For instance, hard shales of the post-Cambrian rocks of the Southern Uplands were once worked extensively for roofing purposes at Stobo Quarry in Peeblesshire and at various other localities, e.g. at Grieston in Peeblesshire and Cairnryan near Stranraer. They/

They are thick and heavy and were of economic value only for local requirements before imported supplies became practicable. Again, Angus, Caithness and Orkney have all used thinly splitting flagstones of Old Red Sandstone age for the roofing of both major and minor buildings; in Orkney and Caithness particularly, considerable numbers of agricultural cottages may still be seen with this type of roofing. These stones owe their fissility to original bedding and do not possess true slaty cleavage. In the North East similarly, stones other than true slate have in the past been used as slate for roofing.

The true slate in the Highlands all falls within the region known as the Grampian Highlands, between the Highland Boundary Fault and the Great Glen Fault. The main ones are as follows:

1) Ballachulish Slates - the best known group of high quality; they have been extensively worked since the opening of the West Quarry in 1697.

2) Easdale Slates - extending north of Jura through the islands of Scarba, Belnahua, Luing, Shuna, and Easdale to Seil and thence northwards to Oban; they have been worked (in Seil and Easdale) from the 16th century.

3) Aberfoyle Slates - extending on the northern side of the Highland Boundary Fault from the Isle of Arran to Dunkeld, with an extension to just north of Stonehaven. Of these, the Aberfoyle quarries were in operation in the early 18th century, while Camstraddan quarry at Luss on Loch Lomond was in operation in the 15th century.
4) a. The Macduff Slates in Banffshire and Northern Aberdeenshire.

b. Outcrops in Banffshire near Keith, Dufftown and Tomintoul.

They have been in operation for a considerable time, and were certainly used in the roofing of many of the 15th and 16th century castles in those counties.

It is with this last group that this study is concerned. They contrast with the other groups in various ways. While blue-grey shades are characteristic of the Ballachulish and Easdale Slates and a variety of colours — grey, blue, purple and green — of the Aberfoyle Group, those of Banff and Aberdeen are a rather dull grey which in certain lights takes on a silvery hue. In surface appearance, slightly rough surfaces with a well-marked grain are common in the Ballachulish and Easdale belts, smooth ungrainy surfaces along the Highland Border; rough surfaces devoid of grain characterise the Banff-Aberdeen group. In texture, the chief distinguishing feature of the North East slates is the meagre development of "diamonds" (crystals of pyrites) in contrast to the Ballachulish and Easdale belts.

OCCURRENCES

A map has been drawn (Fig. 17) showing the location of the slate deposits and the main workings. It does not always cover the variety of other stones which have often been called slates and been used in roofing.
NORTH EAST SLATES: Distribution and Geological Features

In Banffshire and Northern Aberdeenshire a rock-group termed the Macduff Slates forms an outcrop about 8 ml. wide which stretches from the coast at Macduff southwards for 23 ml. to the vicinity of Gartly. Slates, in the strict sense of the word, form only a small proportion of this group which also includes slaty flags, greywackes, fine-grained schistose grits and coarse pebbly grits. In the northern part of the area the ground is comparatively flat and the overburden heavy. The slates are revealed in numerous isolated outcrops, many of which have been quarried. They were also worked on the coast N. of Mill of Melrose, where they split into thin sheets, but were said to be rather soft and crumbling. None of these workings was of any great extent or importance and they are not therefore dealt with here in detail (Hinxman 1896, p. 34; Wilson 1902, pp. 75-76; and Read 1923, pp. 215-216).

South/

(1) Read, 1923, records that at that time they were not worked for slate but for slabby building material. At one time the use of them was extensive, before the cheapening and the increase of transport facilities made imported Welsh slates more profitable. (Memoir Geol. Surv. Sheets 86 and 96, pp. 215, 216).

Read also notes (p. 269) that almost any rock which could be easily dressed was used for building stone. The same is true of roofing. Schists were probably used, and some of the impure limestones and calcareous flags at Sandend. The Findlater Flags were once worked at Slateheugh and near Whitefield for thin flags (Read), and these may have provided the sources for some of the thick roofing to be seen locally. The Findlater Flags were presumably used on the now ruined castle; in 1685, one George Leslie of Burdsbank was given permission to take slates for the Old Milne of Cullen, from the "Sklaitie Heugh of Findlater or David's Castell" (Cramond, Annals of Cullen, 60).

Generally it is clear that the Macduff slate group was used for all kinds of building work according to size and shape. One of the more curious uses of it I encountered was a successful attempt to make a clay and straw wall look like solid stone and lime to increase the value of a house for selling; a local slater used wirenetting, mortar and old slates from Hill of Melrose on the surface of the wall with entirely satisfactory results.
South of Huntly the slates form a line of hills where they are free from overburden. Here they were formerly worked in a long series of quarries which extends from west of Gartly eastwards to the Glens of Foudland (for details see below). The slates wrought in these quarries were once widely used in the north-east of Scotland. They are, however, somewhat thick and of a rather dull colour, and it is doubtful if they are ever likely to be worked again on any important scale.(2)

To S. of the quarries the slates come against the northern margin of a large mass of igneous rock, the Insh gabbro. Near this intrusion the slates are greatly altered by heat and have lost their cleavage. Further from the igneous rock they have a spotted appearance, but/

(1) contd. The Hill of Melrose slates seem to have been in greatest demand during the 18th century. Francis Douglas (1782) records it as a good slate-quarry. By the middle of the 19th century, the New Statistical Account (Gamrie 1842, p. 276) records that it was formerly used as a coarse roofing slate and slabstone, but had been superseded by the Foudland and Easdale primary slates.

(2) The slates were much thicker than the Welsh slates, and needed stouter timbering. Many farmhouses in the north east are roofed with Foudland slates. Local people, according to Read, say that they withstand the local climate better than the Welsh ones. (Read, ibid. 216) They can easily be recognised, by their colour; they are also always used for "random slating". All the North East slates, according to several informants, were very variable in size unless extravagant waste was allowed, and hence random slating was inevitable, the slater laying out all his slates on the ground at the foot of the building and making rows of approximate diminishing sizes, and then working upwards from the largest to the smallest. The widths remain random throughout, the courses in skilful work diminish methodically. Cf. specifications for estate building (Part III)
but may still possess a good cleavage, as can be seen, for example, in the more southerly quarries in the Hill of Foudland.

Some distance W. of the Macduff Slate Group a belt of flaggy schists, mica-schists, phyllites and slates runs from the coast east of Cullen inland in a south-easterly direction past Mulben, W. of Keith, to a point not far from Craigellachie. The slates were formerly worked at Newmill, 1½ ml. N. of Keith, at Mulben, 5 ml. W. of Keith, and at Tarrymount. The quarry at the last-named locality is the largest and lies on the E. side of the disused Keith-Buckie railway 5½ ml. N. by W. of Keith and 4½ ml. S. by W. of Buckie. The slates dip E.S.E. to S.E. at 20°, but are not now well exposed, as the quarry face is much obscured. They were said to be of only moderate quality, and it is doubtful if they would be worth considering as a subject for future exploitation. (3)

Some 3 ml. E. of Dufftown there is a belt of black graphitic schists which belong to a geological horizon different from that of the Tarrymount rocks. These black schists were also wrought at one time for slates, although they are not believed to have been of good quality. One of the quarries lies 1,150 yds. E.S.E. of the ruins of Auchindown Castle, which is 2½ ml. S.E. of Dufftown, and the

(3) This is often referred to locally as the Aultmore Slates, the quarry being on the slopes of Hill of Aultmore. They were certainly widely used for roofing in the 18th and early 19th centuries. Souter (General View ... of Banffshire, 1812, p. 58) notes that there were several other small quarries in the area, including those near Letterfourie and Boat of Bridge, and that the slates were large and of good quality but not elegant.
the other on the N.E. slopes of the Hill of Mackalea, \( \frac{3}{4} \) ml. E. by S.

of Dufftown.\(^{(4)}\)

Considerably further S. than the exposures just described there is a band of fine-grained micaceous slaty flagstone which runs in a north-easterly direction some \( 2\frac{1}{2} \) to \( 3 \) ml. N.W. and N. of Tomintoul. This rock, which may belong to the same geological horizon as that of Tarrymount, has been worked for many years, and up till quite recently, at Gnocfergan Quarry, on the W. side of the River Avon, \( 2\frac{1}{2} \) ml. N.W. of Tomintoul. As well as slabs for building and paving purposes, it is understood that roofing slates were also produced.\(^{(5)}\)

\(^{(4)}\) The New Statistical Account (Mortlach, 1836, p. 107) records the existence of several slate quarries in the district, then working. An earlier comment on the same district by Gordon of Straloch (c. 1654) is interesting. Writing of Mortlach, he says, "At the village of Auchluncart hardly a mile from the King's highway which leads to Elgin in Moray, there is rock and a vein of fine hones, of which some are rough, others smooth, the latter hard, the former soft, drawing an edge with water or oil, and in such abundance that they could supply the whole of Britain. The people of the neighbourhood use these instead of tiles for the roofs of buildings." (in Macfarlane's Geog. Coll. II, 274)

\(^{(5)}\) Slabs of considerable size could easily be obtained. Some of 6 ft. or more are commonly recorded; in some of the houses in the vicinity huge slate slabs can be seen, for example in the fireplace lintel in a ruined smithy in the Braes of Glenlivet. Informants have told of the difficulties in bringing down these great slabs from the quarry into more accessible parts. The slates from Gnocfergan, black and grey in colour, were certainly used for roofing purposes, and many roofs thus finished can still be seen. Certainly, (a random note), the byre at the croft at Achavaich in Glenlivet was roofed with them in the 1920's. The quarry was functioning until the beginning of the Second World War; the foreman of the quarry, Mr. Rose, now works in the Glenlivet distillery. Small stacks of the slates are lying in the quarry and have some value for patching roofs and making small extensions. A retired builder in Tomintoul commented on the weight of the slates; while they were very satisfactory (in fact more so than imported ones) on the old houses with their heavy timbers, and even on older cottages once thatched but constructed with huge cruck shaped timbers of native pine, they could not be satisfactorily used in present housing with its lighter roof construction and often ill-seasoned wood.
Additional note.

Some other supplies of slate or pseudo-slate are on record. Andalusite schists of the Correen Hills were once used extensively for flagstone locally; some of the finer and more fissile bands were used for roofing instead of slate. The chief quarries were at Correen and at Gallows Top, but have been abandoned now for many years. Also at Carlinden Quarry and at Whitely near Innsden, thick and heavy slates could be obtained for roofing. (Geol. Surv. Memoir Sheet 76, 1890, p. 37).

Other records include the quarrying of slate at Strathdon, abandoned because of the coarse quality of the produce (N.S.A. Strathdon, 553), and a quarry in the parish of Rafford in Moray, mentioned in the Old Statistical Account but abandoned by the time of the New Statistical Account (N.S.A. Rafford 1842, p. 242); it produced a coarse grey slate, commonly used in roofing, was not exhausted but had been superseded by Easdale and Ballachulish blue slates.

DETAILS: Glens of Foudland

Locality. The Macduff Slates were formerly worked in a long line of quarries stretching from the Hill of Kirkney, 5 ml. S. by W. of Huntly to the Hill of Tillymorgan, 8½ ml. E.S.E. of Huntly. All these openings have been abandoned for a long period.

Access. The more westerly quarries on the Hill of Kirkney and the Hill of Corskie are close to the main road S. of Huntly and to the L.N.E. railway at Gartly station. The more easterly quarries can be reached from the main road which runs south-eastwards from Huntly through the Glens of Foudland, or from branches of the same road.

Description of Slate. Colour dark blue-grey, banding not common. Surface even, somewhat rough; texture rather coarse. Pyrites very rare. Small flakes of mica seen on cleavage surfaces. Slates appear to be fairly thick.

Dips/
Dips, with Amounts. Cleavage-dip S. $10^\circ$ E. at from $30^\circ$ to nearly $90^\circ$. Bedding-dip often coincident with that of cleavage, but sometimes slightly oblique.

Joints. The slates are traversed by numerous, fairly widely spaced, joints, which follow a variety of directions, none of which appears to be dominant.

Details of Workings. The most westerly quarries are those on the N. face of the Hill of Kirkney, W. of Gartly station, which form a line of openings over half a mile long. The furthest W. of these openings is about 350 yds. long and 30 ft. deep. For the most part a band of slate-rock some 30 ft. wide has been worked; at the W. end the quarry face extends southwards, but whether it penetrates another band or the same band displaced by a fault is not clear. Smaller holes occur to E., and then another large opening about 100 yds. long and some 30 ft. deep, where the band of slate-rock worked also appears to have been some 30 ft. wide. Over-burden at these quarries is absent, but at their upper edges the slates show an abnormally low dip and are much broken owing to surface creep.

On the opposite side of the valley, E. of Gartly station, there is another line of quarries nearly half a mile long on the N.W. face of the Hill of Corskie. There are several small holes to W. 20 to 30 ft. deep, followed by a large opening to E. about 200 yds. long and 30 ft. deep, which appears to have been worked in a band some 20 ft. wide. The most westerly quarries are offset to N. from the line of this band but whether a fault intervenes or whether they have been/
been opened in a different seam is not clear. There is no over-
burden, but surface creep has occurred.

About a mile E. by N. of the workings just described occur the
Haining Quarries and a little further to the eastwards the Roughouster
Quarries. These consist of a number of small openings which need not
be described in detail.

A further 2 ml. E. by N. there are a number of openings in the
Wishach Hill, which lies W. of a road branching southwards from the
main road 4 ml. S.E. of Huntly. There are about half-a-dozen small
holes, clearly very old and now largely obscured by debris and vege-
tation. These openings are from 10 to 20 ft. deep and appear to have
been worked in bands 10 to 20 ft. thick. From the position of the
holes, two main belts seem to have been wrought. Overburden is
absent.

To E., on the opposite side of the road, great numbers of small
holes occur on the W. side and around the top of the Hill of Foudland.
The most extensive workings of the whole area, however, are the
Foudland Quarries on the N. side of the hill, S. of the main road
which runs south-westwards from Huntly through the Glens of Foudland.
The workings are now much obscured, owing to debris, surface creep
and vegetation. To W. the openings are in some cases of considerable
size and include one about 200 yds. long, although the depth does not
exceed 30 ft. Two main seams, about 200 yds. apart, appear to have
been worked. Farther E. there are a number of smaller openings. In
the Foudland Quarries the slates are sometimes spotted, due to heating
by an intrusion of igneous rock, the Insch gabbro, the northern
margin/
margin of which lies 1 1/2 ml. to the S. The spotting therefore comes on in this direction, although it does not appear uniformly at first, but in certain bands. At the quarries it is only slightly developed, and does not seem to interfere with the cleavage.

Brief mention may be made of small openings on the Hill of Skares, E. of the Foudland Quarries. Still further to the E. by N. beyond the main road, there are other old workings in the Hill of Tillymorgan. These mark the limit of the series of quarries, as further to the E. the ground falls and the slate-rock is covered with overburden.

**Reserves.** At all the localities described above ample reserves occur, both laterally and in depth. In most cases it would probably not be easy to reopen existing quarries, as the faces are in bad condition owing to surface creep and to debris. It might, therefore, be more advisable to make new openings nearby on the line of the seams as revealed by the positions of the old workings. At the Foudland Quarries in particular the ground is so broken by old workings and covered with debris that the opening up of new ground slightly to the W. would probably be necessary.

Future exploitation is not likely, but if it should take place, perhaps the ground on either side of the main road at Gartly would be more favourable. Immediately W. of the quarries on the Hill of Kirkney there is a rushy hollow, but beyond the hollow an opening in the hillside ought to meet the workable seam once more. There should also be reserves lower down the hill on the E. side. In the Hill of Corskie, E. of Gartly, there should also be workable reserves immediately/
immediately E. of the existing openings. (7)

There are frequent references in local history to the great use of the Foudland slates in buildings, especially farmhouses, in the neighbourhood and further afield. The opening of the Aberdeen-Inverurie canal stimulated the work at the quarries in the early 19th century, and labourers were encouraged to come there (N.S.A. Insch, 751). The quarries acquired a good reputation; around Alford at the time of the New Statistical Account, slates were being increasingly used, the church at Alford was roofed with them and they were praised for lightness and durability (N.S.A. Alford, 500). Nevertheless production had already declined - from about 900,000 a year to less than half this number by 1842 (N.S.A. Insch, 752), apparently as a result of the accumulation of too much refuse through only working at the top of the hills.

The "lightness" of the slates is not borne out by a writer on Buchan (W. Littlejohn, Stories of the Buchan Cottars before the Year "One" (1801), 1929, p. 2) who describes cottages "roofed with slates like divots from the hills of Foudland ...". They generally necessitated stouter timbering than Welsh slates, but were said by local people to withstand the climate better than the latter (H.H. Read, Geol. Survey Memoir, Sheets 86 and 96, 216).

COMMENT

To summarize this account of the production of slates in the North East, a few comments should be made. It was a scattered and irregular industry, mainly concerned with local demands; and it met them chiefly during the 18th and early 19th centuries. In other words, it grew in answer to the big local requirements of the widespread rebuilding and improvement of dwellings connected with the agricultural revolution and the industrial developments of that time. The slates were always regarded as the best form of roofing, if the owner could afford them, (much better than thatch or tiles*), and their use was an important/

important factor in the creation of local architectural character.

For the 18th century saw their application to all types of dwelling. Before that time, they were certainly used, but were too expensive for humbler folk. At the beginning of the 17th century, says the New Statistical Account of Banff, "few houses besides Lord Airlie's, Lord Banff's and the Laird of Auchmedden's houses, were slated". This situation seems to have been general. But by the end of the 18th century it had changed. Thus, in 1836, "Slating is more used; and there are now few or no black or peat houses. Even the very poorest contrive to get them built of stone and mortar of some kind or other". Not many years later the local quarries were finding it difficult to compete with the lighter, imported slates from Easdale and Ballachulish, which could also be produced more cheaply and were easier to handle in standard sizes. The extended road and rail systems stole away the proximity value of the local quarries, and by the end of the 19th century Welsh slates were steadily increasing their market. Today, with the frequent use of asbestos and proprietary roofing materials on rural buildings, it is unlikely that the local slates will ever be exploited fully again.

Their effect in their hey-day can be gauged from records of the local trade. The Inverurie canal carried 700 tons of slate from the Foudland area in 1831, 359 ½ tons in 1836, and 26 ½ tons in 1840 - a notable decline in export at a time when other commodities were being carried/

(x) N.S.A. Banff, 17.
(y) N.S.A. Deskford, 71.
carried in increasing volume. (x) On the Moray Firth, Banff imported 583,900 slates between 1802 and 1808 (their origin is not stated), and exported 18,000 between 1803 and 1806. Macduff, close to the Melrose quarries, exported 19,000 slates in 1809; this seems to have been the first export of them in the 19th century. (y) By the time of the New Statistical Account, many ports were bringing in Ballachulish slates. An example is Findhorn, which in 1842 was importing "100,000 slates fr. Ballachulish, selling at £2.15/- -£3 per thousand". (z)

(x) N.S.A. Inverury, 683-64.
(y) Tables of Imports and Exports made out by the Custom House at Banff (given in Souter, General View ... of Banffshire, 293-4).
CHAPTER 6

BRICKS AND TILES

GENERAL

The North East is not generally associated with the use of brick as a building material. Granite in Aberdeenshire and Sandstone in Moray are commonly thought of as lending the distinctive character to the buildings of the area. Tiles, well known in their use on the roofs of fisher cottages are often thought of as an import from the Low Countries and a commodity of very limited use. In fact however there did exist a significant trade in the manufacture of bricks and tiles, which it is still possible may become more important if present trends in building continue; and they have made an important contribution to the development of a local style and to the local variations within the region of this study.

Generally in Scotland the manufacture of building bricks is concentrated in the industrial belt of the Midland Valley. In the main the material used for their manufacture is "blaes". This is a Scottish term applied to the shales of the Carboniferous formation; they often contain enough carbonaceous matter to give them a dark bluish-grey or "blae" colour. The shale is obtained from colliery workings of from quarries, among the former being for example the bricks of the Long Niddry Brickworks near Edinburgh, and among the latter those from the shale workings in West Lothian and Lanarkshire. In view of the likely demand for further supplies of bricks, the Geological/
Geological Survey in collaboration with the Building Research Station carried out during the war an investigation into the Brick Clays of North East Scotland, which was published as a Wartime Pamphlet.\(^1\) Since that time a brickworks has been opened up in one of the localities described there, viz. at Brora in Sutherland. In the region of this study there has been no change since the pamphlet's publication in 1946, and the main part of the following notes is taken from that investigation, which included notes on disused and even overbuilt sites. In many cases additional notes are added either on historical material or on uses and the effect on the local character of the vicinity. From all the clay deposits mentioned common bricks have been made; from one (Cruden Bay) they are still made today. Many of them have in the past made roofing tiles. In addition many have been used for the manufacture of drain-tiles.

It may be added that several types of clay have been used in the North East for the manufacture of bricks and tiles:

**Boulder Clay:** A type of clay that covers large stretches of the North East, laid down during the glacial period. It normally contains many fragments and boulders of stone, ranging from less than an inch to a foot or two in diameter. The clay varies a lot in character, from a stiff clay becoming very plastic when wet, to a very sandy clay in some districts. It is still in use for brick-making with satisfactory results in the Cruden Bay Brick Works.

**Fluvio-glacial/**

Fluvioglacial Clays: Deposits of finely bedded or laminated, stoneless, plastic clay up to 30 feet in thickness, which frequently occur in association with other glacial deposits of boulder clay and sand and gravel. They sometimes contain lime shells, which may be avoided in working operations. Where they occur at levels well above the 100 ft. contour they are generally of fluvioglacial origin; where they lie below it they cannot be distinguished from raised beach clays. An example of a fluvioglacial clay is that from Kinnoir.

Raised Beach Clays: Near the coast at various levels at or below the 100 ft. contour; also raised beach terraces at about 50 ft. and 25 ft. O.D. They vary from bedded clays, through fine sand to coarse gravel and shingle. They may locally be overlain by sand or shingle, as at the Moray Brickworks (now defunct).

Alluvium: Alluvial clays deposited in river beds have also been used.

Jurassic Shales: Certain clays, notably those at Plaidy and Tochineal which have been used for brick making, have been regarded as being of Jurassic age on the evidence of certain fossils, and therefore as large transported masses or erratics enclosed within the boulder clay. If this is so, the reserves may be small. This, it is suggested by the Geological Survey, may be the case at Plaidy, but in Banffshire (Tochineal) it is more likely that they form part of the raised beach deposits of the district, and that their reserves may be more extensive.
OCCURRENCES

A map has been drawn (Fig. 18) showing the location of the brick clays outlined in this account. The reference numbers given here correspond with those on the map. It is impossible to indicate the spread of the clay deposits individually; in many cases it is not known.

1. **Stonehaven** (TILES)

   **Locality.** 400 yds. S. by W. of the railway station at Stonehaven.
   **Access.** About ¼ m. by service road from the railway station, and from the main road leading from the latter into the town.

   A tile works is shown on an old edition of the Ordnance map at the above locality, but a later note (date 10/76) on the Geological Survey 6-inch map indicates that the clay pit was then filled in. Recent inspection suggests that working may have again taken place since the above date, but there is very little to see of the clay formerly worked. It seems to have been a red clay, so far as could be seen, free from stones. It occurs on a flattish terrace that lies approximately at 100 ft. O.D., suggesting that the clay worked in the pit may have formed part of the '100-ft.' raised-beach deposits. It probably overlies, at no great depth, gravel deposits that are exposed in the ravine cut by the Carron Water, a few hundred yards to the south of the old pit. Here only 1 to 2 feet of clay lay above the gravel, but it presumably thickens in the direction of the old clay pit where apparently a seam at least 6 ft. in thickness was worked. Dr. Anderson, who has examined the gravel deposits in the area/
area, suggests the clay may equally well be fluvioglacial in origin.

Exploration might prove further reserves, but on the whole the deposit does not seem likely to be worth further investigation, unless for purely local purposes. It is not known whether it was utilised for brick, as well as tile-making.

2. Torry, (Aberdeen Town) (BRICKS)

Locality. 700 yds. E.N.E. of Wellington Suspension Bridge, in the suburb of Torry, on the south side of the Dee, a little to E. of Torry farm.

A brick works formerly existed at the above locality, but the area has now been built over.

According to Jamieson (1858, p. 509) the section worked there was:

Coarse shingle or waterworn gravel 7 ft.
Finely laminated clay, with some thin seams of fine sand, varying in colour from yellowish-brown to red and bluish grey 22 ft.
Gravel

No shells are recorded from this clay, but it was said to have included occasional small stones.

The Torry clay appears to form part of the '50-ft.' raised-beach deposits.

Owing to building developments there seems no prospect of working these clays in the Torry area. The gravel-cover, too, would probably, in any case, render such a prospect uneconomic.
3. **Ferryhill, Aberdeen** (BRICKS)

**Locality.** On the left bank of the River Dee, about halfway between the main railway station and the Wellington Suspension Bridge.

A clay pit was worked for brick making at the above locality—marked on the old 6-in. to the mile ordnance map as 'Clayhills'—but has long since been abandoned, and the area is now built over.

According to Jamieson (1858, pp. 509-10) the clay here lay under overburden of 12 ft. of sand and gravel, so that, unless the latter were utilised, the deposit is not one that would be regarded as attractive from an economic point of view. The section at the pit was recorded by Jamieson, as follows:

- Water worn sand and gravel 12 ft.
- Brownish clay and fine sand in numerous alternating layers, getting redder towards the base 20 ft.
- Fine red brick clay 17 ft.
- Fine light-greyish clay, with thin seams of sand 10 ft.
- Sand and gravel 10 ft.
- Laminated fine pale-greyish clay with seams of small sand 20 ft.
- Fine sand

The clay strata are remarkably free from stones or boulders; and fossilised remains of shells, that might be limy, are, if present at all, rare.

According to a note on the 6-in. to the mile geological map, clay was also worked near the river bank some \( \frac{1}{2} \) mile to the south, at a place then known (1880, or earlier) as Altenvale, apparently at the west end of what is now Duthie Park, or in the cemetery immediately west/
west of the latter.

The clays worked in the above localities appear to form part of the 50-ft. raised-beach deposits.

4. Old Aberdeen, Seaton (BRICKS)

Locality. About 300 yds. east of Aberdeen - Bridge of Don main road, 700 yds. S. of Bridge of Don.

Access. Adjacent to side road, leading to main road 300 yds. distant.

Bricks were formerly made at the Seaton Brick Works, but the clay is now worked solely for the manufacture of earthenware pottery, and horticultural ware such as flower pots.

In the existing clay pit, which is small and shallow, the following section is exposed:

Soil overburden

1 ft. to 2 ft.

Hard stiff rudely laminated bluish yellow clay, with few stones and little lime

3 ft. to \( \frac{4}{2} \) ft.

resting on an uneven base, consisting of

Fine silty sand

Jamieson (1858, p. 511) on the other hand, records a somewhat different section at the Seaton Brick Works:

Gravel

3 ft.

Fine yellowish-brown or bluish-brown clay, with some thin seams of sand

16 ft.

Sand and gravel

Jamieson states that no shells appear to have been found in this clay. He also states that bedded clay and sand occur, probably throughout the coastal area between Dee and Don, but are generally overlain/
overlain by gravel and shingle. The site for the brick works was chosen at a point where the gravel cover was relatively thin.\(^{(1)}\)

The clay at Seaton and thereabouts is probably a raised-beach deposit.

5. **Black Dog (BRICKS)**

**Locality.** Close to the farm of Blackdog, which lies a little more than 4 m. E. of the main Aberdeen-Peterhead road, almost 5 m. N. of Aberdeen.

**Access.** By service road to main road, about 650 yds. Apparently, according to the 1-in. to the mile 'Popular' edition of the Ordnance map, at the time the brick pit was in operation it was connected by a light railway running along the shore for 3½ miles to Bridge of Don, 1½ miles north of Aberdeen.

The Black Dog Brick Works is now abandoned, but the workings appear to have been on a fairly extensive scale. According to Jamieson \((1858, \text{pp. 511-2})\) the section worked there in his time was as follows:

\[ \text{Coarse/} \]

\((1)\) Bricks from the Seaton Brick Works can be seen in many of the houses in and around Old Aberdeen, often used in conjunction with granite (Figs. ). They seem to have made a considerable variety of sizes of brick. The majority are smaller than the present standard size, and are about 2\("\) by 10\("\) by 4\("\). There are also much larger bricks used in Aberdeen, said to come from the Seaton Brick Works, measuring on elevation 12\("\) by 4\("\). The works was driven by the Powis Burn, east of the old town, which came to be known as the "Tile Burn"; this suggests that the works also made many of the tiles also seen in Old Aberdeen. (Cf. MacKenzie, Aberdeen, 13)
Coarse gravel and shingle  
4 ft.

Bedded on laminated clay and sand, with  
broken shells  
11 ft.

Sand

Jamieson states that the clay varied in colour from brick-red to a dull greenish tint, and that there was more clay than sand, the latter being of fine quality and brownish in colour. The shells only occurred in certain seams. No boulders were seen in the clay and sand beds.

As far as can be made out now, the clay worked must have approximated in thickness to the figure given by Jamieson, and it is clear that there was a considerable overburden of coarse gravel, possibly exceeding 4 ft. In fact, it was stated locally that the workings were abandoned owing to the overburden increasing in thickness, and thus rendering the working of the clay uneconomic. Examination of the old pit with an auger proved 4 ft. reddish-brown stoneless clay immediately beneath the gravel overburden, and another 5 ft. beneath the existing base of the pit, indicating the total available thickness of brick clay to exceed 9 ft. The clay at the base of the pit was somewhat softer and wetter than the upper layer, as is usual. No information was available as to whether shells were present in sufficient quantity to detract from the value of the clay for brick-making.

Workings seem to have proceeded inland, towards the west, in which direction an increase of overburden might be anticipated. The pit lies immediately south of the side road passing Blackdog farm. The area on the other side of this road, passing northwards, is flat, and/
and may possibly not have any very thick overburden. Its possibilities should be worth testing, since the reserves there may be considerable, and would be just as accessible as the Black Dog brick pit.

Jamieson records that the same brick clay as that at Black Dog outcrops about 1 1/2 miles to N. in the Burn of Milden, where, at one point, 16 ft. of alternating layers of pure red clay and fine greyish sand, devoid of stones are seen. This section apparently occurs to E. of the main road; and the original geological map records similar clays as occurring immediately to W. of this road, close to the farm of Milden.

The area in the neighbourhood of Milden Burn seems to have possibilities, and might be worth further examination.

The clays both at Black Dog and Milden lie below the 100-ft. contour and probably form part of the deposits of one or other of the raised beaches of the district.

6. **Balmedie House**

**Locality.** On either side of the main Aberdeen-Ellon road, in the region of Balmedie House, 7 1/2 m. from Aberdeen.

**Access.** Adjacent to main road, 7 1/2 m. N. of Aberdeen.

Tests were made with an auger in certain fields in the neighbourhood of Balmedie House, and these disclosed the presence at the surface of red stoneless brick clay, probably similar in character to that known to occur elsewhere both to N. and S. In a field W. of Balmedie House, immediately W. of the main road, and just N. of the side/
side road some 5 to 6 ft. of clay were proved; and a similar amount to S.W. of Balmedie House, in a field just E. of the main road, and N. of Mill of Eggie. The full thickness of clay here is unknown, the auger not reaching below the depth mentioned.

Between 500 and 1,000 yds. N. of Balmedie House, and E. of the main road, a promising-looking area sloping gently away to E. may be underlain by brick clay. It has not been proved, but might be worth testing. If clay were present at all in the area, the reserves should be very considerable.

7. Middlemuir House, E. of Belhelvie

Locality. N. of Aberdeen, 2½ m. N. by W. of Belhelvie, in the vicinity of Middlemuir House. (1)

Access. Close to road running past Middlemuir House. 2 m. by secondary road to main road, and thence between 8 and 9 m. to Aberdeen. 4½ m. to nearest railway station, at Newmachar.

Tests carried out by means of an auger suggest the presence of stoneless brick clay over a considerable area in the fields immediately to E. and N.E. of Middlemuir House, W. of the N.N.W. - S.S.E. road that passes within about a mile of the House. The maximum thickness proved was about 5 ft. with only a foot or so of soil as overburden. In some of the holes this included a seam of sand of 1 ft. or less thickness. The general lie of the land suggests that the clay may extend southwestward for perhaps a mile or more, on the N. side of the/

(1) Possibly once worked by Strabathie Brick Works.

(Cf. J.P. Tocher, Book of Buchan, 15)
the road passing Middlemuir House, in which case the reserves would be very considerable.

Further exploratory work would however be necessary, to determine the full thickness of the seam, its quality, and the area over which it is present.

The clay near Middlemuir House lies above the 200-ft. contour, and is probably fluvioglacial in origin.

8. **Tipperty**

**Locality.** Lies immediately E. of main Aberdeen-Elron road, 13½ m. N. of Aberdeen.

**Access.** Adjacent to main road, 3¾ m. to railway station at Elron.

A brick clay is worked at the above locality by the Cruden Bay Brick and Tile Company; but at present (1944 and 1957) it is only producing drain tiles for agricultural purposes.

The clay is almost completely stoneless, and is finely banded; and it is evidently either a fluvioglacial clay or marine in origin.

The clay as at present worked lies between about 50 and 70 ft. above O.D. Whether it extends above this level in neighbouring land is unknown, but it may well form part of the deposits of the 100-ft. raised-beach.

The worked section is as follows:—

- **Soil overburden**
  - 1 ft. to 1 ft. 6 in.

- **Stiff reddish brown laminated clay (no stones)**
  - 8 ft.

- **Laminated sandy clay, silt and sand**
  - 2 ft. 6 in. to 3 ft. 6 in.

- **Brown, softer, more plastic laminated clay, very few stones**
  - 6 ft.

- **Sand, gravel and rock rubble (not exposed)**
  -
The clay probably extends for 300 to 400 yds. to E. of the existing pit, but the ground level falls a little in this direction and the deposit may be thin. To N., S. and E. it is bounded by stream-cut hollows, and whether it extends beyond these limits is uncertain. Farther N. and S. beyond the stream hollows, the ground rises and, though the deposit should be present, its limits are quite uncertain. The most likely direction in which reserves may be expected is in the triangular area immediately W. of the main road opposite the existing pit, and below the 100-ft. contour, an area that should provide fairly extensive reserves. (1)

9. Esslemont (BRICKS)

Locality. 2\(\frac{1}{2}\) m. S.W. of Ellon just E. of the road running S. from Littlemill of Esslemont, and about \(\frac{3}{4}\) m. S. of the latter.

Access. 3 m. by road from Ellon; about 15 m. by road from Aberdeen, and 1 m. from Esslemont station, on the Aberdeen-Ellen line.

An old brick works, abandoned for many years, stood on the flat close to the road, at the above locality.

There is very little surface indication as to the nature of the clay originally worked here. The old Survey Memoir on the area (Explanation of Sheet 87, 1886, p. 29) states that it was the Upper Red.

(1) Tests were carried out by the Building Research Station on samples of clay from Tipperty, which showed that in two cases the water content and shrinkage were excessive, so that the manufacture of bricks from ungrigated clay could not be recommended. In another sample, tests showed that bricks fired at about 1040°C would be suitable for normal exposure; but this was merely an intermediate layer, and would not be economic to work by itself.
Red Boulder Clay, but since, in the past, certain stoneless and laminated clays have been included with the Upper Red Boulder Clay, in this part of Aberdeenshire, it does not necessarily follow that the worked clay was stony. Actually such indications as there are suggest the contrary. There are a few small exposures of reddish clay, near the brick works, that are apparently stoneless. In addition, a test made with an auger, on the opposite side of the road to the brick works (in order to avoid any made ground) proved 9 in. of soil and 5 ft. 6 in. to 6 ft. red stoneless clay (the limit to which the auger was usable).

The general configuration of the flat expanse of land round the brick works and the fact that the surface lies just below 100 ft. O.D., and is in continuity with the valley of the Ythan river a little to N. where considerable thicknesses of stoneless laminated clay are believed to occur, suggests that the clay at Esslemont may be of this type. If this is the case, it should prove suitable for brick-making.

Extensive reserves might be expected to occur round about the old brick works, and the site is easily accessible from the road. It may be suggested as a locality that would justify further exploratory work to test the full extent, thickness and quality of the brick clay.

10. **Ellon**

**Locality.** Approximately 16 m. N. of Aberdeen.

**Access.** On main road from Aberdeen; rail facilities in town.

There is no record of any brick works ever having been situated at Ellon itself but it is perhaps worth noting that Jamieson (1858, p. 514) records that finely laminated clay probably similar
in type to that used elsewhere in Aberdeenshire for brick-making, 
occurs up the valley of the river Ythan for some miles upstream from 
its mouth, i.e. towards Ellon, and that, on sinking a well in the 
village of Ellon, the beds exposed were:—

Coarse waterworn gravel (? alluvium) 11 ft.

Fine laminated clay, varying in colour from 
brick-red to pale, greenish-grey 33 ft.

During a recent inspection no exposures of laminated clay 
were observed, nor was the well referred to above located. It is, 
however, probable that the laminated clays mentioned by Jamieson, and 
proved in the well may be the stoneless clays of the '100-ft.' 
raised-beach. There is a considerable area of land round about Ellon 
lying low the 100-ft. contour in which such clays may be present, and 
this area is in continuity with the area at Littlemill of Esslemont 
(q.v.), 2½ miles S.W. of Ellon, where what are believed to be similar 
clays were at one time worked for brick-making.

11. Westfield farm, Auchmacoy (BRICKS)

Locality. 300 yds. S. of Westfield farm (6-in. Aberdeen 39 S.W.), 
and 1½ m. S. by E. of Auchmacoy station on the Ellon-Cruden Bay 
railway.

Access. About 300 yds. by service road to main road, and thence 
about 3½ m. by road to Ellon, where railway facilities are available.

According to the New Statistical Account of Scotland, published 
in 1845 (vol. 12, p. 813), the tenants of Westfield farm erected a 
brick works on the above site in 1834, and drain tiles also were made 
there. A note on the six-inch to the mile geological field map states 
that/
that the pit was abandoned sometime between 1870 and 1880. The pit is now grassed over, and nothing is to be seen of the clay once worked here; but it was evidently river alluvium formed at the confluence of the Burn of Forvie and the River Ythan. According to Jamieson (Proc. Geol. Soc., 1858, p. 514) the section exposed in the working pit at that time was as follows:

- Gravel or shingle 3 ft.
- Fine red to pale-grey clay, with occasional seams of fine sand 7 ft.
- Gravel 6 in.
- Pure red clay 2 ft.
- Gravel -

It is still evident at the side of the old pit that the clay worked must have lain under an overburden of sand or gravel. The reserves cannot be very large. The ground is very low lying, and it does not seem a particularly favourable locality for setting up a new brickworks, apart from any questions of the suitability of the clay, which is unknown.

12. Port Errol, Cruden Bay (BRICKS)

Locality. Immediately N. of railway, ½ m. E.N.E. of Cruden Bay station and ⅔ m. N. of Port Errol.

Access. By railway siding from Cruden Bay branch line, connecting with main line to Aberdeen at Ellon. 23 m. by road from Aberdeen.

An extensive clay pit is operated at this locality by the Cruden Bay Brick and Tile Company. The clay worked is the Upper Red Boulder Clay.

Although/
Although, like all boulder clays, that at Cruden Bay contains small stones, pebbles and boulders, they are here less plentiful than in some localities. The face at present (1944) being worked is as follows:

Stiff reddish-brown, unbedded boulder clay, few stones or boulders about 15 ft. to 20 ft.
Bedded sand, sandy clay and silt, (occasionally in pockets up to 30 ft. down) up to 6 ft.

The management states that previous exploration by boring in the immediate vicinity proved the clay to have a total thickness of at least 40 ft. and at some points as much as 60 ft. At present only a restricted thickness is worked with a single bucket excavator, and the pockets of sand have to be avoided. No definite information was available as to the nature of the lower clay, at present unexposed. The pockets of bedded sand are, no doubt, relics of the bedded sands and clays that separate the Upper Red from the Lower Grey Boulder Clays of the district, perhaps partly incorporated in the Upper Red Boulder Clay. These interglacial sands attain a considerable thickness in the neighbourhood. At Hatton cross-roads, 2½ miles to the west, they are probably at least 20 or 30 ft. thick (but occur at a considerably higher level, O.D.). This tends to suggest that a deepening of the pit at Cruden Bay might disclose a considerable thickness of sand and gravel, before again reaching clay, but, in the absence of further information, it is impossible to be sure of this.

The boulder clay of Cruden Bay pit has been worked extensively for making common bricks. (Hence its common name of "Brick Work Bay").

(1) Tests made by the B.R.S. showed that the clay was suitable for making bricks for normal exposure; bricks burnt at 1050°C - 1080°C would be satisfactory under conditions of severe exposure.

A disadvantage of the Cruden Bay bricks mentioned by an Aberdeen
Downiehills farm (BRICKS AND TILES)

Locality. On farm of Downiehills, 2½ m. W. of Peterhead, and just N. of main road leading due W. from Peterhead.

Access. 200 yds. by service road to main road leading to Peterhead, where rail facilities would be available.

The workings in the past at the pit at this locality were evidently on a fairly extensive scale, but the pit is now almost completely grassed. So far as can now be made out, the clay worked was a stiff reddish-brown boulder clay, that must have been fairly stony, containing pebbles and boulders of granite and quartz. At one point at the side of the old workings some sand was noticed, suggesting a possible lack of uniformity in the clay resulting from the inclusion of bands or included masses of sand, such as occur in the boulder clay in the brick pit at Cruden Bay, but it was impossible to form any opinion as to the size or frequency of any such inclusions.

Jamieson (1858, p. 519) records that at the time the pit was in operation the brick maker sank a well 40 ft., and bored an additional 12 ft., proving the following section:

Reddish-brown unstratified boulder clay 20 ft.

Stratified stoneless clay, with layers of different colours 32 ft.

The boulder clay was stated to be fine enough for making bricks and tiles, after extracting the stones, and mention is made of the inclusion of a block of granite 3 tons in weight. It seems probable that/

(1) contd. from previous page. architect, is their tendency to allow harling to come away with half the brick after some time, and to spoil plasterwork by florescence if the plaster is put direct on to them.
that the clay actually utilised was the boulder clay, and not the underlying stoneless clay. The fragments of brick and tile lying about, though a pleasing red in colour, are marred by fairly numerous inclusions of stony matter.

This does not seem a suitable locality for a brick pit, in view of the fact that the stoneless clay is available at the surface in other parts of Aberdeenshire.

14. **Ednie, near Peterhead (BRICKS AND TILES)**

**Locality.** 4 m. N.W. of Peterhead, on south side of secondary road opposite Ednie farm, close to the River Ugie.

**Access.** At roadside, 4 m. from Peterhead.

The old clay workings here are completely grassed over and it is difficult to form any definite opinion as to the nature of the clay originally worked. There are suggestions that a stony, reddish-brown boulder clay may have been present at the top of the pit, and possibly a laminated clay. The note on the original 6-in. to the mile geological field-map is rather confused, but records the presence of red clay containing a few stones, which was laminated at the top of the section and, presumably at a lower level, included compact dark blue clay and also sandy patches of irregular thickness. Jamieson (1858, p. 520) does not mention a brick works at Ednie, so that it was presumably not opened at that date. He records the occurrence of finely laminated clay in the banks of the River Ugie for several miles upstream from its mouth at Peterhead, but states that this is usually concealed by a deep covering of coarse gravel. He also mentions that at/
at Ednie this fine stratified clay rests on a mass of 'coarse stony stuff', and that a well sunk at Ednie proved:

- Fine stratified clay 13 ft.
- Coarse, dark, unstratified stony clay 20 ft.

The stratified clay of Ednie lies above the level of the recent river alluvium, and is probably of either fluvioglacial or raised-beach origin. The indications are that it would not prove a particularly suitable locality for reopening as a brick pit.\(^{(1)}\)

15. **Annachie (BRICKS AND TILES)**

**Locality.** 4 m. N. by W. of Peterhead, and 1 m. N.E. of the village of St. Fergus, close to the sea shore, 300 yds. N. of Annachie farm, and just N. of the Blackwater burn.

**Access.** By side road, for the most part in poor repair, 1 m. to St. Fergus and thence about 5 m. by main road to Peterhead, the nearest railway station.

A brick pit existed at this locality at one time but has not been worked for very many years. Little is now to be seen in the old pit, which is almost completely grassed, but the workings do not seem to have been extensive. The clay worked seems to have been a stoneless grey laminated clay, forming part of the 50-ft. raised-beach deposits that extend for several miles along the coast north of Peterhead.

Jamieson (1858, p. 520) records that the clay was a fine blackish-blue sandy clay quite free from stones and pebbles and that it has a thickness/\(^{(1)}\)

\(^{(1)}\) It is marked on the 1" O.S. map as a Brick and Tile Works.
thickness of 25 ft., below which it passed into sand of a similar colour. According to Jamieson, the clay was very uniform in texture, without any distinct lines of stratification.\(^1\)

The clay included fossil shells, though not, apparently, in very considerable numbers. Jamieson also records finding crystals of sulphate of lime in neighbouring exposures of the clay.

In the immediate area of the old pit the clay passes inland under blown sand, which would be a hindrance to working it economically, but there might be prospects of locating the clay without this cover in the flat area extending for 2 miles or more to the north of St. Fergus.

The presence of shells might, however, render it unsuitable for making good class bricks, and, in any case, little could be said of the prospects here without further investigating the extent, thickness and quality of the clay.

16. **Lumbs** (BRICKS)

**Locality.** On the farm of Lumbs, 300 yds. S. of the Peterhead - Fraserburgh road, 11 m. from Peterhead, and 7 from Fraserburgh.

**Access.** About 300 yds. from main Peterhead - Fraserburgh road, by service road. About 1½ m. from Lonmay station, on the Fraserburgh - Aberdeen line.

The brick pit at this locality cannot have been worked for many years past, and is grassed over. The clay appears to be a dark greyish-/

\(^1\) According to J.S. Grant Wilson (Geol. Survey Memoir to Sheet 97, 1882) it was used once for bricks and tiles.
greyish-brown boulder clay, apparently with few stones. A note in the Geological Survey Memoir on the area (Explanation of Sheet 97), which was published in 1882, at which time the pit may have been working, states that the clay was brown boulder clay "remarkably free from stones". The fragments of brick lying about suggest that the clay burnt to a satisfactory red colour.

There are probably considerable reserves in the vicinity of the old pit.

17. Plaidy, N. of Turriff (BRICKS AND TILES)

Locality. Immediately N. of Plaidy station (disused), 3¹⁄₂ m. N. of Turriff.

Access. Close to main road and railway.

Description of Deposit. The clay was considered to be a large transported mass of Jurassic material enveloped in boulder clay, as it has yielded Jurassic fossils. Since it lies at a height of 250 ft. above sea-level, and is of very small extent, it seems much more likely to be an erratic than is the case with the deposits at Tochineal and Whitehills.

Details of workings. The deposit was first revealed when the railway cutting was made. Subsequently a pit was opened immediately E. of the railway. It was of comparatively small extent and seems to have been about 30 yds. by 20 yds. and some 25 ft. deep. It is now entirely obscured by vegetation, apart from a small exposure of weathered, sandy boulder clay.
Uses. Bricks and tiles formerly manufactured. (1)

Reserves. The pit is in a rather ill-defined ridge, which comes to an end immediately to E., so there are no reserves on this side of the railway. The ridge is also seen on the W. side and there may be some reserves here, but they cannot be large as only sandy boulder clay is seen in a road cutting 130 yds. W. of the railway. Near the road the ridge merges into the general boulder clay topography.

For all practical purposes, the deposit may be regarded as worked out.

16. Kinnoir, near Huntly (BRICKS AND TILES)

Locality. Between 1½ m. E., and 3½ m. N.E., of Huntly.

Access. The deposit is traversed by the Huntly-Aberchirder road and by secondary roads branching from the latter. There are full rail facilities at Huntly and the north end of the deposit is only 1 mile by road from the railway N. of Huntly.

Description of Deposit. The clay forms the floor of an extensive area of flat ground, 2½ miles long by half to three-quarters of a mile wide, and was probably laid down in a glacial lake. As exposed in an old pit near its N. end (see below) the clay is of a brown, plastic, finely laminated, stoneless type, slightly silty in some layers which contain visible flakes of mica. In the neighbourhood of the old workings the ground is slightly undulating; to S. there is a large area of flat ground N. of the Huntly-Aberchirder road. To S. of the road rock appears to be near the surface, but still farther S.E. of Huntly there is another very considerable flat area, within which the fields are markedly clayey.

(1) According to a local informant, they were being made 80 years ago.
Details of workings. The deposit was formerly worked on a rather small scale at the Kinnoir Works, 2½ miles N.E. of Huntly. Of a number of pits dug in the vicinity, only one 250 yds. W.N.W. of the works, now reveals a good section. Here clay of the type described above is seen to a depth of 8 ft., without the base being exposed. In other openings 250 to 300 yds. S.W. of the works the deposit seems to be thin and sandy clay with stones is seen in a ditch on the E. side of an adjacent road.

Uses. Bricks, tiles and drain-pipes formerly manufactured.

Reserves. The whole area would appear to contain a huge reserve of brick-clay but digging or boring would be required to prove depth. The test results are, however, not encouraging; it has poor plasticity and requires a high water content for moulding; the strength is unusually low.

19. Whitehills, W. of Banff (BRICKS AND TILES)

Locality. At Blackpots, on N.E. side of Whitehills, 2½ m. W.N.W. of Banff.

Access. Service road to main road; small harbour ½ m.; railway 1 m.

Description of deposit. The clay as exposed in the clay pit described below, is a massive plastic, dark bluish-black type, with some small stones. The top of the clay, to a depth of 5 feet or so, is brown in colour. Fragments of Jurassic limestone, sandstone and shale with fossils have been obtained from the clay, and it has been suggested that the whole deposit is a huge Jurassic erratic. The presence of small fragments of local rocks and of shells such as Lytilus, as well as/
as the general form of the deposit, makes it appear more likely that it consists of '100-ft.' beach material.

Details of workings. The deposit has been worked in a large, circular opening about 70 yds. in diameter; only a small part of the east face, about 20 ft. high is at present exposed. The clay is dug by hand and transported by means of a light railway to nearly works.

Uses. Only drain-pipes at present produced. Bricks and tiles have also been manufactured.

Reserves. Reserves are probably considerable, but would appear to be confined to the high ground forming a rough terrace, above the 50-ft. contour, N.E. of Whitehills. This high ground, excluding the parts built over, has a superficial area of about 13 acres, but may not of course all consist of brick-clay. Boring would be necessary to prove the depth of the deposit at different levels. (1)

(1) The following information is given in the Old Statistical Account, Vol. XX, p. 350, published in 1798. "Brick and Tile Work:

The Late Dr. Saunders of this place, a gentleman of enterprising spirit, established, several years ago, a brick and tile work on his farm, about two miles from the town. It is still carried on with success, (and on an extensive plan) by his son. The work possesses great advantages from its local situation, having the command of a suitable harbour for the importation of coals, and for exporting part of the produce of the manufacture. Mr. Saunders generally employs eight or nine men, besides an overseer.

A brick work on a smaller scale has lately been set on foot in the vicinity of the town."

This is undoubtedly Blackpots Brick and Tile Works; the harbour remains, though with a very limited use, close to the works. Souter notes the activity of the works in his Report on Banffshire. In the New Statistical Account (1842) the following note appears in the description of the parish of Boyndie - Vol. XIII, p. 237.

"A manufacture of bricks, tiles, etc., is carried on at Blackpots, near Whitehills. Eleven hands are employed in the manufacture in the summer season. In winter, four or five are employed in preparing the clay. In consequence of this last operation being insufficiently performed, the work had fallen into disrepute, and therefore probably has not been a remunerating concern for a considerable time, but, under careful management, it has again begun to command a large trade.
20. Tochineal, S. of Cullen (BRICKS AND TILES)

Locality. ½ m. S. by W. of Tochineal Station.

Access. Service road to main road; railway station 1 m. by road.

Description of deposit. The clay, as exposed in the clay-pit described below, is a massive, plastic, dark bluish-black type containing wisps of sand. The top of the clay, to a depth of 2 to 3 feet, is weathered brown in colour. A few pebbles are present. It has been suggested that the deposit is a huge glacial erratic of Jurassic material, partly on the evidence of an old record of Jurassic fossils having been found in it, and partly because of its resemblance to the clay at Blackpots, near Banff, which has also been claimed to be of Jurassic age. On the other hand the Tochineal deposit seems to form part of a flattish terrace, which, although rising to 120 feet or so, might well be part of the '100-ft.' beach. Moreover the clay shows no sign of stratification.

The present situation at Blackpots resembles the above account on a smaller scale. Of the six or seven men employed, the majority only work in the summer months. Drain tiles are the only product, there being insufficient demand, according to the foreman, for tiles and bricks; in particular, the tiles are said to be too heavy and to leak.

The works is a fascinating building, and can be taken as representative of the old plant for producing bricks and tiles. The wooden moulds for the tiles are still in existence; the clay was put into these moulds, and the tiles were then allowed to dry on shelves along walls made of timber with deep wooden louvres before firing. Considerable warping in the processes often made for difficulties in their use. The long framed timber structure still supports a magnificent, unevenly settled roof of its own tiles.
stratification, such as might be expected if it were weathered Jurassic shale. The fossils may have been derived from comparatively small erratics enclosed in raised beach deposits, and the dark colour of the clay may be due to material derived from nearby black schists.

Details of Workings. The deposit has been opened up in an irregular pit, measuring roughly 100 by 50 yds., and from 10 to 14 feet deep. Only a small portion of the S.W. face is at present exposed. The clay was dug by hand and transported by means of a light railway to the nearby works.

Uses. Drainpipes were until recently produced. Bricks and tiles have also been manufactured. The bricks were said to be rather soft. They are hollow centred, and are sometimes to be seen used head on as decoration. The Seafield Estates maintain a store of bricks and tiles for maintenance.

Reserves. If the deposit is merely a large Jurassic erratic it follows that the reserves must be comparatively small. If, as seems more likely, it consists of '100-ft.' beach material the reserves, even in the immediate vicinity of the pit, are probably considerable. To N.W., between the pit and a road there is an area some 350 yards long and 100 to 300 yds. wide, containing roughly 14 acres, which as it forms a continuous terrace with the clay worked at the pit, in all likelihood consists of the same material. There are also probably reserves to S. of the pit. The clay has been proved to a depth of 14 ft. at the pit, but the bottom was not reached. Boring would of course be necessary before any quantitative estimate could be made of the reserves underlying the unworked ground.

North-east of the pit, beyond a stream, there is a great expanse of/
of flat 100-ft. raised beach. Clay occurs in the fields and in drains and, if it is of sufficient depth, huge reserves must exist in this area.

21. Craigellachie, N.E. of Aberlour (BRICKS AND TILES)

Locality. 1/3 m. S.E. of Craigellachie.

Access. Adjacent to main road; railway station 2 m.

Description of deposit. The brick clay occupies a hollow in boulder clay, about half-a-mile long and 250 yds. wide, the surface of which is practically flat. The N. end of the deposit was at one time worked but no sections are now available. The material formerly wrought was described as a light-brown, laminated, glacial silt, with horizontal bedding, containing thin layers of fine sand or very small gravel, with occasional pebbles up to 2 inches in diameter. This deposit was stated to be about 18-20 feet thick. At one portion of the section, false-bedded glacial silt, sand and gravel were exposed.

Details of workings. There have clearly been fairly extensive openings at the N. end of the deposit, N. of the road. The pits are now obscured, and partly filled with refuse.

Uses. Bricks, tiles and drain-pipes formerly manufactured. (1)

Reserves. It is doubtful if any important quantity of material, which could be readily worked, exists in the area of the old workings, N. of the road. South of the latter there is an expanse of flat ground,

(1) According to L.W. Hinman and J.S. Grant Wilson (Geol. Survey Memoir to Sheet 85, 1902) there was still a considerable manufacture of bricks, tiles and drain-pipes at that date. Terra cotta ware was also made from the finer parts of the glacial clay.
measuring about 250 yds. by 150 yds., where there may be workable reserves, although the depth is not known. While these reserves would probably be sufficient for local purposes, they would hardly be extensive enough to warrant large-scale development.

22. Loch Spynie, N. of Elgin (BRICKS AND TILES)

Locality. On W. side of Lossiemouth railway, 3\(\frac{1}{4}\) m. N. of Elgin.

Access. Service road to main Elgin - Lossiemouth road; railway adjacent.

Description of deposit. A pit was formerly worked in clay underlying an alluvial flat near Loch Spynie. The opening is now filled with water, but the following average section was kindly supplied by Mr. Christie, 1 Commerce Street, Elgin.

Fine yellow sand 18 ft. 0 in.

Shell bed 1 ft. 0 in.

Peat 1 ft. 3 in.

Light blue clay 1 ft. 6 in.

Dark clay over 20 ft. 0 in.

Clay, with thin sandy beds was proved by boring for a further 28 ft. beneath the floor of the pit, without its base being reached.

Details of workings. The pit was worked for many years (1) up till 1939, when it was abandoned on account of the overburden of sand reaching a thickness of 20 to 30 ft. and thus rendering further exploitation uneconomic. The clay was dealt with at adjacent works, now largely dismantled.

(1) By the Morayshire Brick Works.
Uses. Mostly tiles produced; bricks also manufactured, but proved rather soft and were used mainly for interior work.

Reserves. Brick clay has been shown to underlie most of the flat ground west of Loch Spynie. It was formerly worked near Easter Waterymains, 1\frac{1}{2} miles W.S.W. of the pit just described. At most localities, however, it is covered with sand, which is usually too thick to make economic exploitation possible.

23. Lossiemouth

Recent excavations on and adjacent to the farm of North Greens, Covesea, about two miles W. of Lossiemouth, indicate the presence of brick-clay in this area. It is stated that at the west side of the aerodrome, adjoining North Greens farm, during constructional work, piles were sunk through 20 ft. of clay. On the farm itself a number of shallow pits proved a clay seam up to 4 ft. in thickness, beneath a thin overburden.

The clay as seen in one pit, was a stiff plastic grey clay, containing a fair number of small stones, but no boulders. It is probably a raised-beach clay, since it lies just below 100 ft. O.D., though no signs of bedding were noticed in the pit examined.

Not far to the west, however, a well, sunk for water in 1940, proved 10 ft. of boulder clay overlying rock.

The full thickness of the clay seam on North Greens farm remains to be proved, and also the extent of the area within which the seam is present, and the average thickness of overburden. The indications seem to be sufficiently favourable to justify further exploratory work/
work, by boring, but until this is carried out no final opinion can be expressed as to the possibilities in the area.

24. **Gollanfield, E.N.E. of Inverness**

**Locality.** On the farm of Poolton, E. of Gollanfield Railway crossing and N. of the Nairn-Inverness highway, 11 m. from Inverness, 4 m. from Nairn.

**Access.** Service roads leading off the highway; railway adjacent.

Station (Gollanfield Junction) 1.5 m.

**Description of deposit.** A cultivated peat flat extends north of the highway for 400 yds. In ditches draining this flat near its northern margin a white clay is visible under a foot or two of peat. It can readily be exposed by digging, and in this way has been proved to be present over an area of several acres.

In depth it has not been proved beyond what can readily be reached with a spade in a small excavation, say 4 ft., but no sign of bottom was noted and its thickness is believed to be much more than this figure.

The clay is white, free from stones and extremely plastic. It has not been used as a brick or tile clay in the past or tried out for this purpose.

Laboratory tests have shown this clay to have a low fusing point and that it would be suitable as a bonding clay for carborundum grinding wheels and similar purposes.
25. **Allanfearn, nr. Inverness**

**Locality.** On the N. side of the Inverness-Nairn main road, close to Lower Cullernie farm, 4 m. from Inverness.

**Access.** Adjacent to main road, and ½ m. from Allanfearn railway station.

A brick and tile works formerly existed at the above locality, but has been abandoned for many years. (1)

The clay seam formed part of the deposits which form a wide platform, extending inland nearly to Balloch and Culloden House.

According to a note on the six-inch to the mile geological map, the seam was said to have a total thickness of 22 ft.; and to consist of stratified clay interbedded with thin beds of sand, each about 2 in. thick. The clay seam overlies fine sand.

The pit is now almost completely grassed over, and it is impossible to form any opinion as to the general nature of the clay formerly worked. The workings seem to have been on a fairly extensive scale.

**Reserves.** It is probable that the clay seam extends beyond the limits of the old clay pit; and not unlikely that it may be present over a considerable area within the limits of the 100 ft. raised-beach platform. There is a record of the occurrence of fine clay without stones close to the main road at Newton, about half a mile E.N.E. of the clay pit.

Unfortunately much of the old raised-beach platform is covered with irregular mounds of sand and gravel, often of considerable thickness. Their presence overlying the clay seam, would render it uneconomical to work the latter, unless the overburden of sand and gravel could/

(1) Being about 1 mile north of Culloden mansion, this was known as the Culloden Brick and Tile Works. It was abandoned probably before 1900.
Reserves with, possibly, little or no cover of sand may exist in the relatively low-lying area between the old clay pit and Lower Callernie farm, some 300 yards to N.W. There is also a more extensive area of low-lying land to S. of the main road, between the old clay pit and Allanfearn, about half a mile to E., which appears flat and largely free from gravel mounds. The clay seam, if present, in this area, may well have little or no cover of sand.

Exploratory work by boring would be necessary before it could be established that reserves of clay exist in quantity in this area, without a thick cover of sand or gravel.

Additional Note

An interesting example of a once important brickworks that has now entirely disappeared and is not mentioned above, was the Invernettie Brickwork, at Peterhead. According to the New Statistical Account (Peterhead, 1840, p. 367 and 348) it lay "now" within the Parliamentary boundary of the burgh about 1 mile to the south of the town, and had been in operation for about 40 years. A bed of clay was wrought to a depth of 30-40 feet. Building bricks and tiles of excellent quality were produced and a large number was exported annually, chiefly to the Moray Firth. The proprietors had lately erected a small harbour in the immediate vicinity of the work.

J.T. Findlay, writing in 1897 (History of Peterhead up to 1896, p. 307), mentions that it was between the South Turnpike and the sea. In the early years of the 19th century it was run by Messrs. Forbes and/
and Co., was large and flourishing, and made about 250,000 bricks and tiles annually, loading them on to ships at the private pier. "Several very ingenious improvements in the manner of manufacturing" were made by Messrs. Forbes, and "it is said the pantiles ... were equal, if not superior, to those of the Dutch". Fraserburgh's water pipes were made there. Later owned by Messrs. Yule and Milne, it had lately been pulled down, but used to be a picturesque landmark, often seen in old pictures.

DEVELOPMENT AND DISTRIBUTION

This survey outlines the supply of bricks and tiles in the past and indicates the possibilities in the future. Since the Geological Survey carried out their investigation, the trend has been towards a further decline in the manufacture of these products. An enquiry made by the Scottish Council (Development and Industries) into the Buckie-Peterhead area showed some enthusiasm at Buckie for the development of a local brick industry; but after investigations this suggestion was dropped. The cost of freight of bricks is a grave disadvantage in their use, and contributes to the present wide use of concrete blocks in local small scale building.

Nevertheless, in the past and particularly during the 18th and 19th centuries, the manufacture of bricks and tiles in this region has played a highly significant part in creating the local characteristics of its vernacular architecture. Despite the lack of specific references to the matter, it seems fairly clear that the design of the pantiles is related to that of Dutch pantiles. It has frequently been suggested that/
that in the first instance cargoes of tiles from the Low Countries were imported, perhaps from the notable trade between them and the East Coast. The burghs on the East Coast of Scotland between Aberdeenshire and Fife flourished during the 17th century through this trade, particularly in wool; at Veere (Campvere) near Middelburg in Walcheren, for instance, the trade was of a scale to maintain a resident Conservator of Scottish Privileges, who lived in a very Dutch-looking house which is known as "the Scotch House" and is pointed out to mystified visitors as being in the Scotch style. The prevalence of pantiles, together with other Low Country features, occurs similarly on the East Coast in England, and very noticeably in East Anglia.

To trace this influence in detail would require a thorough investigation of records of imports in the Scottish parts. It might not be conclusive; for many of the records do not give the source from which the material came (see table below). But it seems to me reasonable to assume that the pattern derives (during the 16th and 17th centuries, at the least) from imported tiles; it is also clear that the majority of the brick and tile works were either founded or much expanded during the 18th century, in rhythm with the great agricultural improvements and the village planning movement, and investigations in the area also lead me to conclude that the pantiled vernacular buildings in the region were in the vast majority supplied with tiles from the local tile works. The distribution pattern is too obvious to assume otherwise, the pantile areas almost all being related to the sites of former or present tile works. All round Rora Moss, to give an instance, near the site of the Ednie Works, practically/
practically all the roofs are covered in this way.

Furthermore, there was clearly a considerable local trade between ports in the region, which could account for the prevalence of tiled roofs in the fisher villages which are not very close to the workings. A good example, quoted above, was the Invernettie Brick Works at Peterhead, whose tiles were said to be as good as those of the Dutch, and which were often exported to the Moray Firth. That Firth also had several tile works; and an extract from the records of the Custom House at Banff, relating to the ports at Banff, Macduff, Portsoy and Gardenstown during some of the most flourishing years of the trade, gives a useful glimpse of the marketing of the products.\(^{(1)}\)

The major exports from Banff are presumably due to the production of tiles at Blackpots. The relative sizes of the imports at the other ports can be related to the prevalence or lack of tiled buildings in their areas. Comparison for the same years of the movement of slates at the same ports (Chapter 5) can also be made in relation to the building types. The small number of imported tiles and bricks at Banff may indicate imported foreign ones or specials for important buildings, or some proprietor's preference for a product from another part of the region. Cargoes on the Aberdeen-Inverurie canal similarly indicate transport to inland parts, e.g. 1831: 29\(^\frac{3}{4}\) tons, 1836: 69\(^\frac{1}{2}\) tons, 1840: 94 tons of bricks and tiles.\(^{(2)}\)

The use of these materials, their advantages and disadvantages which have always provoked much comment, is dealt with in Part III.

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\(^{(1)}\) See table on following page.

\(^{(2)}\) N.S.A. Aberdeenshire, 683-84.
| Year | PORT | BANFF | | MACDUFF | | PORTSOY | | GARDENSTOWN |
|------|------|-------|------|-------|------|-------|------|
|      |      | Bricks | Tiles | Bricks | Tiles | Bricks | Tiles | Bricks | Tiles |
| 1802 |      | 1000   | 500   | -      | -     | -      | -     | -      | -     |
| 1803 |      | 500    | 1500  | -      | -     | -      | -     | -      | -     |
| 1804 |      | 150    | 3950  | 1000   | 500   | 450    | 4600  | -      | -     |
| 1805 |      | 300    | 7200  | -      | -     | -      | 1000  | -      | -     |
| 1806 |      | 500    | 4000  | 1650   | 80    | -      | -     | -      | -     |
| 1807 |      | 450    | 2150  | -      | -     | 2900   | -     | -      | -     |
| 1808 |      | 40,000 | 33,550| -      | -     | -      | -     | -      | -     |
| 1809 |      | 92,000 | 6,800 | -      | -     | -      | -     | -      | -     |
| 1804 |      | 69,786 | 13,324| -      | -     | -      | -     | -      | -     |
| 1805 |      | 107,800| 4,300 | -      | -     | -      | -     | -      | -     |
| 1806 |      | 56,000 | 24,950| -      | -     | -      | -     | -      | -     |
| 1807 |      | 14,400 | 14,624| -      | -     | -      | -     | -      | -     |
| 1808 |      | 28,000 | 3,824 | -      | -     | -      | -     | -      | -     |
| 1809 |      | 29,700 | 29,925| -      | -     | 1170   | 315   | -      | -     |

From full table of Imports and Exports made by the Custom House at Banff, given in Souter, General View ... of Banffshire, 293-94.
CHAPTER 7

TILBER AND THATCH

These two materials are difficult to discuss in any detail. For the farmer, the main location and history of the woodlands has been given in Part I, and it is here only necessary to outline the main sources of supply for building; for the latter, the practice of thatching will be discussed in Part III, and this chapter deals only with the supply of material.

TILBER

Scarcity of timber was a common problem in erecting rural dwellings and their ancillary buildings. It is indeed one of the main factors that limited the size of cottages and byres, and there is ample testimony in the buildings themselves to the use of second-hand timbers locally found; along the coast, drift wood and the remains of discarded boats are often in evidence, sometimes even in the shape of a complete hull turned upside down to provide outbuildings. It is recorded that at Keith, the people digging the moss on the Hill of Aultmore used to take up fir from beneath the ground both for fuel and constructional purposes.(1)

With this problem to face, the basic division of the supply of timber was between that grown locally or in neighbouring counties, and that imported from abroad. In the 17th century, Gordon of Stralock wrote that where tillage was possible, 'the wood has fallen off and grown scarce, and for this reason timber for buildings is conveyed by sea/
sea from the neighbouring Norway; there is enough at home for country purposes. What remains of the home woods is difficult to transport from remote places over rough tracks". (2) This brief statement summarizes fairly well the situation that carried on through the 18th century - the relative scarcity of wood in the more populated areas, the use of imported timber for good class work and local wood for country dwellings, the difficulty of inland transport. Hence the major native supply was from the Highland areas, especially on the upper parts of the Spey, Findhorn and Nairn, and it could best be transported by river and by the sea.

Sir John Sinclair draws the same picture in the early 19th century. Fir from Memel in the Baltic was the best timber (and also the most expensive); supplies from the American colonies were good, but not for beams or scantlings, being too soft (the Quebec supplies however were good for all purposes); the Scotch fir and larch, popular because of the high price of foreign wood, was inferior, being coarser, full of knots and having a higher proportion of sapwood. The firs on the estates of Gordon, Grant, Monymusk and Rothiemurchus, he says, were excellent for all country purposes. The larch was strong and durable, and the Scotch fir was suitable for cottages. (3) Oak was in short supply and commanded a high price because of the demand in shipbuilding; but it was regarded as highly desirable for structural work. It made fine floors, though not finer than the best red wood from the Baltic. Ordinary floors could be made from Norway logs.

(2) Gordon of Straloch's Account, c. 1654. (Macfarlane's Geog. Coll. II, 268)
logs, and were usually made from narrow fir deals from \( \frac{3}{4} \) to \( \frac{1}{3} \) in thickness. (4)

Strathspey, in any case, was the source of the main native timbers, and a considerable trade was carried on to all parts of the North East. From Rothiemurchus and from Duthie, with its great Firr Woods, says an early 18th century account, much timber was transported to Inverness. (5) In Aberdeen, all the logs and beams, along with slates and lime was conveyed by sea from distant places, said Gordon of Rothiemay; (6) and these distant places presumably included the Moray Firth as well as foreign lands.

The main exploitation of the Strathspey forests came in the 18th century, when the York Buildings Company purchased the woods of Abernethy from Sir James Grant, cut tracks to the Spey, and floated logs down the river to its mouth. Though the Company's project failed, the felling and transporting of timber nevertheless continued for over 60 years from 1728, (7) and supplied a considerable coastal trade along the Moray Firth. Kingston, on the Spey's estuary, was the chief port, being founded for the purposes of the trade and for shipbuilding by Messrs. Osbourne and Dodsworth, who named it after their headquarters, Kingston-upon-Hull. It therefore flourished while the great forests up the Spey were able to send down the timber. In 1791

(7) N.S.A. Abernethy, 93.
no less than eighty-two shiploads of timber left the port.\(^8\)

But the exhaustion of the forests led to its decline in the early 19th century. By the time of the New Statistical Account, the Glenmore Forest had been worked out, and Rothiemurchus, Abernethy and Glenfeshie were providing the supply. There were three agents at Kingston for its sale, and another three individuals who dealt in planted fir timber. The planted fir was cheaper, being considered less durable than the natural grown fir.\(^9\) Logs and spars were sold and also sawn timber (e.g. scantling planks and deals for 1s.6d. to 2s. per cu. ft. in the mid 19th century), and between 60 and 80 persons were employed as labourers and sawyers. The trade had declined from about £40,000 stg. per annum in natural fir early in the century to about £10,000 in 1835; planted timber had declined from £30,000 to £10,000 in the same period.\(^10\) The destination of some of this trade can be assessed by examining tables of imports at other ports. In the first decade of the 19th century, for example, Banff, Macduff and Portsoy in Banffshire, were importing great quantities of "Fir, Deals and Staves" from the Spey.\(^11\)

Further west, a good trade was carried on from the mouths of the Findhorn and Nairn. About 2,000 loads of timber, chiefly from the forests of Darnaway and Altyre, were reputed to be leaving the port.

\(^{\text{8}}\) George Anderson, Kingston-on-Spey, 75.

\(^{\text{9}}\) A point often confirmed by local builders familiar with the old highland cottages. In Tomintoul I was assured that the old natural fir crucks in earlier cottages were so hard that it was virtually impossible to drive a nail into them.

\(^{\text{10}}\) N.S.A. Speymouth, 57-58.

\(^{\text{11}}\) Souter, General View ... of Banffshire, 293-94. (Tables from Banff Custom House)
of Findhorn annually about 1842. At the urban centre nearby, Forres, there was a flourishing sawmill, which, it is said, was "of late making wood-pavement, cut into small hexagonal blocks, for the streets of London". (13)

THATCH (Materials)

Except in a few localities the practice of thatching has now died out. Within the North East there were several different methods of thatching, primarily related to the material used and lending a certain distinction to different parts of the country. The main ones were heather, broom and fern, straw, rushes and bent.

Rushes were occasionally used in the Highland areas (14) and in Kincardine (15), and were presumably also used in other localities where they are available; but this does not seem ever to have been the common material in any of the counties. Fern was used in the Highland areas, and is supposed to have made a durable thatch, if cut close to the ground in October and laid on with the roots outward. (16)

Broom should make a good thatch, and I have several times heard it referred to in different places; it is mentioned in Sir Alexander Grant's Account books for repairs to buildings on his estate at Monymusk/

(13) N.S.A. Forres, 171.
(14) Marshall, Mr.: Gen. view ... of the Central Highlands. 1794, 20
(15) G. Robertson, General View ... of Kincardine. 1813, 178.
Monymusk. (17) Bent, from the dunes that border the sea in Moray and Nairn, was certainly used extensively in the locality; (18) the removal of too much and the loosening of the sand dunes was considered to be one of the contributory factors in the desolation of Culbin by sand.

But the two predominant materials were straw and heather, the former mainly in the Lowland areas and the latter in the Highlands. Since other materials, slates and tiles, became more readily available in the Lowland parts during the 18th century, the use of straw thatch tended to decline earlier than that of heather, although it has remained to this day a common roof near the mouth of the Spey. Straw thatch had certain disadvantages, one being that the farmer usually wanted his straw for other purposes, another being its liability to fire and vermin. Wheat straw and rye straw were the best (an old thatcher at Urquhart in Moray thought rye straw far preferable to wheat straw); then came barley straw in the order of merit; and oat straw was very inferior. (19) The straw was normally used in conjunction with divots, less frequently without them (see Part III).

Straw thatch was usual in all four counties and even where a house was slated or tiled was the normal roofing for farm buildings up to at least the middle of the 19th century. At the time of the New Statistical/...
Statistical Account, it was in some places, such as near Elgin, a common feature of the house of a small farmer, contrasting with the slated roofs of his more prosperous neighbour. This was generally true of the county of Moray. Wheat straw and rye straw were the usual selection.

In some places straw thatch and heather thatch were both used. The heather seems to have made a very good roof, and there are still examples of it to be seen in the remoter places such as Glenlivet and Glenrinnes, used with turf and making a thick warm covering. The Kirk certainly considered it good enough for country churches. In the early 18th century the churches at Kincardine O'Neil, Aboyne and Glen-tanar on Deeside were thatched with heather. Further north the churches at Aberlour and Ardesier were still heather thatched in the latter part of the century.

The heather was pulled up by the roots and made into bundles, and was commonly fixed with clay, normally in conjunction with divots. Its use seems to have declined steadily during the 19th century and the skill is now largely forgotten. Occasionally a laird used it romantically on a shooting lodge for deliberate effect. In this century an Episcopal Chapel was built in Glentanar, which was thatched with heather and had seats covered with deer skins.

(20) N.S.A. Elgin, 14
(22) E.g. Alford (N.S.A. 500): most of the farm buildings were straw-thatched, and a few with heath - the more durable covering. In Monquhitter parish (N.S.A. 767) both were common. Grant of Monymusk also used heather.
(25) Charles Grant of Wester Elchies built a shooting lodge (a "cottage") at Glengunnery in 1827 of wood, with heather thatch; it had thirteen apartments and was fitted up as in the days of "auld lang syne" (NSA Knockando, 70).
Part III is concerned with the buildings of the rural, coastal and small urban parts of the North East, and with their layout. So far the background to the placing and growth of settlements and an account of the sources of building materials have been given. To some extent, the chapters into which this Part is for convenience divided are artificial, and a comment is necessary.

It is convenient to consider the villages, their planning and the buildings they contain, together. In the case of the farms and rural settlements, however, a rough division is made between the pattern before the time of the agricultural improvements and that following them and forming part of them. So marked was the change and so sweeping the renewal of old habitations once that this is justifiable. Nevertheless, it is frequently impossible to ascribe a remaining cottage to one or other period with any certainty. The process of change was not sudden, and in some places has made very little difference until fairly recently; generally, too, the basic type of cottage changed more in its standard than in its essential plan. Furthermore, it is not easy, unless the family is it knows which ancestor built it, to detect a characterising of materials, craftsmanship and details that cannot be superficial possible under the new and varied forms of building since before walking to those parts of the North East as it now is. Certain building methods, noted before the agricultural improvements, must to have survived right through the whole century.

PART III

THE SETTLEMENTS AND THEIR BUILDINGS
Part III

Introductory Note

Part III is concerned with the buildings of the rural, coastal and small urban parts of the North East, and with their layout. So far the background to the placing and growth of settlements and an account of the sources of building materials have been given. To some extent, the chapters into which this Part is for convenience divided are artificial, and a comment is necessary.

It is convenient to consider the villages, their planning and the buildings they contain, together. In the case of the farms and rural settlements, however, a rough division is made between the pattern before the time of the agricultural improvements and that following them and forming part of them. So marked was the change and so sweeping the removal of old habitations and their replacement by new ones that this is justifiable. Nevertheless, it is frequently impossible to ascribe a remaining cottage to one or other period with any certainty. The process of change was not sudden, and in some places had made very little difference until fairly recently; generally, too, the basic type of cottage changed more in its standard than in its essential plan. Furthermore, it is not an easy matter to date a simple cottage unless the family in it knows which ancestor built it. Certain characteristics of materials, craftsmanship and details will suggest an earliest possible date; but with a crude piece of building there is often nothing to tell whether it is 300 or 100 years old. Certain building methods, noted before the agricultural improvements, seem to have survived right through the 19th century.
Nevertheless, the following chapters attempt to give a picture of the change, which has been discussed in Part I. The illustrations follow the main divisions; both photographs and surveys are grouped accordingly, allowing for the fact that in some cases a dwelling erected during the 18th century and much altered since may still represent the type of house common in the previous century. Particularly illustrative are some of the plans taken from Estate Offices, which were made in the late 19th century with a view to enlarging and improving cottages which were still in an "unimproved" condition; the first plan normally shows the earlier state of things, the second the work done - and shows incidentally that many substantial rural cottages today contain in them the walls of older and perhaps very old dwellings.
Chapter 1.

Rural Building before the Improvements

I: Layout and Plan Types

The architecture of the rural settlements and isolated crofts at the beginning of the 18th century, before the era of agrarian changes, is essentially a product of the system of farming, the run-rig system, and its nucleus, the "fermtoun", which was described in Part I. There are many descriptions of the "fermtouns", the majority unflattering; there is also sufficient material evidence left to give a reasonable picture of their composition and details. It is not without charm, but is certainly without the better known charm of the English type of village or the Scottish small burgh. All the evidence suggests that there was no conscious grouping of buildings and no particular design of dwellings; both layout and building seem to have taken their form from severely functional demands, reinforced by tradition and by a poverty which precluded more than the simplest and quickest building methods. Hence the random layout is related to the land suitable for building, above the contours of sodden land which required drainage and roughly centred among the cultivatable ridges of the "intown" part of the farm. Such positioning is often not immediately apparent today, when drainage of land and reclamation of waste has made less apparent the reason for choosing the site. The houses, surrounded by their lands, were predominantly constructed of stone, with a rough timber roof structure and thatch - the materials ready at hand. Barns and byres were not markedly different.

First, the layout of the farmtowns. Will Alexander, the author of "Johnny Gibb of Gushetneuk", gives a detailed description of the old

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1 Alexander, W.: Northern Rural Life, 10-12.
hamlet or "clachan", on a site determined by the presence of water and fertility, and thus often one of some natural beauty.

"Here, then, in our hamlet, we have a number, varying from four or five to a dozen, of these homely yet tolerably comfortable houses....some with their adjuncts of barn and byre - planted down in a miscellaneous sort of way, as if they had dropt from the clouds, or been scattered broadcast over the knoll by Titanic hands. A winding road, or track rather, partly fenced in by round-headed "feal dykes", not in the best state of repair, leads up to the hamlet. This road expands into the "toon loan", and loses itself somewhere about the "head of the toon" at this end; most likely it loses itself at the other end among "the rigs outbye"; or, at farthest, about the margin of the "moss", where peats, or more likely "sods" only, are dug as fuel for the community. About the place we find here and there an exceedingly rustic sort of garden. In these "yards", which occur in no regular order - are so placed, in fact, that a stranger could hardly guess from the position of any one of them to which of the indwellers it belonged - may be found, besides certain useful vegetables, as "kail", green or red, and "syboes", a few old fashioned herbs and flowers.... honeysuckle, hardy southermwood, peppermint, wormwood, "docken"....

"And, as already indicated, in almost every case we find trees about the hamlet. A few ashes about the loan head, some rough scrubby elder (or "bourtree") bushes about the corners of the gardens, and, it may be, a plane-tree enriching the scene with its mass of dark-green foliage. Then, in some favoured corner, there is the rowan tree, or possibly a pair of these growing side by side like twin sisters with their arms interlaced. They have yielded many a slip for crosses to put above the byre-door, on Rood even, to fend the bestial from "uncanny fowk". For, as we know,

'Rowan tree and red thread,
Keep the witches frae their speed.' "
This description is probably too flattering for the majority of such settlements, the remnants of which can be seen today. Nevertheless they are usually now in a state of relative decline and must have had a much better appearance in the days when they formed the normal economic unit of farming.

The social composition of the "touns" has already been commented upon (Part I, Chapter 13), but it is useful to recapitulate their function in order to avoid some subsequent inconsistency in their names. Alexander uses the name "clahhan", which is a slightly more important designation than that of "fermtoun". Strictly speaking, the "fermtoun" was the small settlement of agricultural workers farming on the runrig method, with anything from four to a dozen houses. The larger ones, which might have up to twenty houses, often had a smith, a tailor, a wright, and other tradesmen, who served an area larger than a single "toun". Such were the "touns" of Upper Coullie and Pitmunie on the estate of Monymusk. These elementary sort of villages are often called "clahhans", especially in the Highland and Upland areas of the region. There is no essential difference in their layout or architectural composition from the smaller "fermtouns".

Again, there are innumerable settlements called "cottartouns", or in shorter form "cottown". This could be misleading, particularly since I shall use some of them to illustrate the nature of the "fermtoun". But these are also no different physically from the "fermtouns". They are settlements of cottagers, with small pieces of land, and are in effect smallholders. Their origins may vary, but frequently they are the product of the steady agricultural changes, the farmers left over from the amalgamation of farmtown lands into single big farms remaining congregated

1 Hamilton, H.: "Life and Labour on an Aberdeenshire Estate", xxiv.
in small clusters of dwellings. They worked on their crofts and on
neighbouring farms, and often had a trade as well. The "cottartouns" are
in fact commonly an old "fermtoun", with the same buildings, the same yards and
the same disorderly character, but surrounded now not by the old communal rigs
of infield, but by small lots of land belonging to the cottagers individually.
They have preserved in solid form the architectural pattern of the old
settlements. Some, again, may have become known now as villages, and may
have a different function as dormitories for nearby villages and towns; but
they can still be adduced as examples of the earlier practices.

The names of such places, and the names also of today's single farms,
often indicate their origin. The cottartowns are obvious. The suffix
"-ton" or "-toun" on the name of a farm is a relic of the former existence
of a farmtown. Another is the name "Shenval", a common name in the
Highland and Upland areas. There are several Shenvals in Glenlivet, Glenrinnes,
the Cabrach, etc.; this name means "old town".

The "fermtouns" were the general rule, and there are many accounts of
them.

In Glenbuchat up to the middle of the 19th century, the people lived
in clachans - irregular groups of ten to twenty of what Barclay of
Glenbuchat calls "Firehouses". In Glenbuchat there were seven main clabhans -
Easter Buchat, Beltamore, Belnacraig, Belnaboth, Upperton, Peatfold, and
Badenyon. At the time he was writing, however, (1906), the clachans were
rapidly disappearing.1

Robertson, who produced the report on Kincardineshire in the series of
agricultural surveys in the early years of the 19th century, gives a clear
account of the situation of the cottages. In noting their little gardens

1James Barclay of Glenbuchat, in the Book of Glenbuchat, 43.
or kail-yards, he comments on the great care put into them, raising vegetables; often too there were rows of gooseberry and currant bushes, roses and flowering shrubs, and some cottagers decorated their walls with honeysuckle or ivy and kept cherry and apple trees.

Particularly interesting is his comment that the cottager was commonly happy in the snugness of his situation more than the farmer. Where the latter’s house was often exposed on a hill or sunk in a bog, the cottages were usually in warm and dry places, in the recess of a glen, beside a streamlet or beside plantations. Even when on a muir (for convenience in fetching fuel) care could be taken for shelter and that the cottage be decorated "amid the blooming furze or the yellow broom". ¹

He makes the point that this description applies to the class of cottager who is independent, working either as a labourer or a mechanic, and whose lot has not changed much from earlier times. He builds his own house, near shelter, water and fuel; sometimes they congregate, but seldom to form a regular village, and almost every house faces in a different direction. A contrast to these is afforded by the cottages attached to farms (which belong to the improvement movement) which are often more regularly disposed along highways.

The layout of two or three typical "touns" can be seen in Figs. 19 and 20, which also illustrate what became of their lands at the time of the enclosures. In the district surrounding Spey Bay there survive several small settlements which have changed little from their shape in the early years of the 18th century. One, Cowfurach, is shown in Fig. 21, along with a similar cottartown at Ardoch, inland from Cullen, and there are several photographic illustrations (Pl. 1-7). Cowfurach has seven houses (described in the Book of Reference to the Parish plans prepared by the Ordnance Survey in the middle of the 19th

¹Robertson, G. op. cit. 184-185.
century as "seven cottar houses"), and they are arranged in no particular order. Old estate maps in the estate office in Fochabers, previously the Gordon Estates, show that at one time it was a bigger settlement. In 1764, according to a plan\(^1\) there, "Cofurach" was a farm laid out on the ridge system, subdivided into a number of farming units characterised by their names. Thus there were Backside of Cofurach (16.2.0. acres of corn land), Burnside of Cofurach (25.1.12), Cottertown and Milltown of Cofurach (59.1.10), Green of Cofurach (17.1.30), Mains of Cofurach (23.2.14), and Moss-side of Cofurach (13.1.0). Mains of Cofurach also had 6 acres of grass land.

Another, un-dated but later map indicates that around the "cotterton" were strips of about \(\frac{1}{2}\) an acres of land.

Nearby were other such settlements. Clochan was and is a "clachan", and its smithy was still functioning as one of the last of the old smithies three years ago. In a plan of the Enzie District by George Gordon in 1859 it is described as a village, and had then 11 acres of land belonging to it; there were ten dwelling houses with outbuildings, mostly with less than an acre each. Nether Auchenreath remains one of the best examples in the district. Plans of it, differentiating the buildings belonging to each tenant in 1859, are given in Fig. 22. It had six principal tenants and a number of others. By that time what had formerly been a farm or "separate estate"\(^2\) had been broken into a farm and a "village", the former with all but a fraction of the cultivatable land, leaving again less than an acre to each of the tenants in the "toun". In the same vicinity are other settlements, such as Nether Dallachy, Upper Dallachy and Bogmuir, described in another plan of 1859\(^3\) as

\(^1\)Plan of the Lordship of Enzie, by Will Anderson, 1764.

\(^2\)NSA Bellie, Moray (1842), 120.

\(^3\)Plan of the Lower Part of Bellie, 1859.
considerable villages - of 15, 7, and 23 acres respectively. Nether Dallachy has an unusually large number of houses (in 1835 there were sixty buildings of various sorts recorded\(^1\)), and approximates most closely to what is now called a village. The houses there now (Pl. 9-24) are mostly over 150 years old, and were, according to local informants, built by their occupiers (often the grandparents or great grandparents of present aged people); the people hold their land from the Crown Gordon Estates, and combine gardening and small holding with salmon fishing. In terms of the layout of the place, it is interesting that there is no major building of any kind to provide a focus. The only feature which is of central importance is the village pump, reasonably accessible from all the houses and still used; but it is by no means made (as it often is in an English village) into a visual feature, being hidden behind the outbuildings of a house that fronts on to the road.

Other estate plans tell the same story. In Glenlivet, for example, all the major farms, some of which are illustrated later as examples of the "improved" farm buildings, were formerly clusters of houses described as "touns". Thus the farm of Achdregnie was divided by 1774 into the Upper Town (with 6 buildings), the Mid Town (with 5 buildings), and the Nether Town (with 9 buildings)\(^2\). The main part is now a single farm, but the names Nethertown etc. have survived in local use. Lettoch had seven buildings and Calier nine.

\(^1\)Plan of the Environs of Gordon Castle, 1835.

\(^2\)Plan of the Lands of Glenlivat, surveyed by Thomas Milne, 1774, in Gordon Estate Office, Glenlivet.
Oh, th' auld clay biggin'
Wi' th' thack on its riggin'
Wi' its but an' its cosie wee ben
Aglow wi' th' heat fae a big peat fire
An' th' frugal fare - that wis hame.

The houses that composed the farmtouns and other small settlements were simple in the extreme. They were the product of a slow development from the most basic kind of shelter that can be devised, and they formed a house type which in its essentials has only gone out of production in this century. The following description of the old houses therefore applies in many of its details to the later developments of construction as well as to the earlier phases; but it is often impossible to distinguish in constructional details between pre-improvement dwellings and post-improvement ones. Much of the detail thus applies to the cottages in particular which are dealt with as "improved" types in the next chapter.

I have not attempted in this study to reconstruct the type of house in use much earlier than the beginning of the 18th century, being concerned primarily with the pattern as found before the agricultural revolution and that produced by it. Nevertheless it does seem to me that in its origin the house type of the North East was a strictly functional product. If perhaps foreign influences played a part in the early formation of a basic house unit suited to the agricultural system it belonged to, it is difficult to see that a dwelling could have been thought out that owed less to any influence whatever other than basic need.

For the basic house type is one made of local field stones or mud for its walls, and rough local timber and sods and straw or heather for its roof. Its plan too is simple - two rooms, of which one was originally for cattle and the other for human beings. It developed into a cottage or house entirely for
human beings, with the same two rooms\(^1\), and then a small one, the closet, in between, in the obvious space left facing the door and behind the box-beds. It was a development stimulated by the example of other areas, but essentially a practical improvement of a simple basic pattern. Elements such as the windows show clearly the influence of standard practice from the south, diffused by the operation of the estate offices in the late 18th and 19th centuries. On the other hand such an element as the fireplace and chimney seems again to show a development along a purely local, practical line of improvement.

That the standard but and ben derived from the old type of black house which held both men and beasts, and which has been in use in the Western Highlands until much later than in the Lowland parts of Scotland, seems fairly clear. This house type is often referred to in the pages both of the Old and New Statistical Accounts as the immediate precursor of the simple cottage. The minister of Ardclach, near Nairn, on the borders of the Highlands, recorded the change as being fairly late in his district. "The state of the parish as it at present exists, as compared with what it was, very much within the remembrance of persons now living, is striking in the extreme. Till a period comparatively recent....the peasantry and small farmers... lived in hovels, the entrance to which was used promiscuously by themselves and their cattle, one end of the dwelling being possessed by the latter, and the other by themselves. The dung of the animals was cleaned out at lone intervals, - the work being performed by means of a hand-barrow, such as is used by masons, and requiring two able-bodied men to accomplish it. The midden or dung-hill was invariably in a large hollow, made for the purpose, at the very door.... In the long winter evenings, their only light was moss fir, split into small slips, - lamps being

\(^1\text{Cf. Will Alexander, 'Northern Rural Life
}^\text{3, 10: "Each house consisted of a 'but' and a 'ben' with little variation in the character or extent of the accommodation embraced".}
unknown, and a tallow candle so rare, as to be known only as "a white candle", in contradistinction to the "fir candle", which they ordinarily used.1

By the 18th century the type was well established, with minor local variations, Skene Keith, in his report on the agriculture of Aberdeenshire, gives a detailed description of the houses, and comments that it was about 1780 that they began to be replaced extensively. Until then none of the common farmers' houses were built with stone and lime, and only a small proportion were built with stone and clay. Generally they were built with about 4 to 5 feet of stone and clay, or stones filled with earth instead of wrought clay, and 1 to 2 feet of turf ("feal") above the stones of the side walls, and "the gables built of the same perishing materials".

"The couples, or supporters of the roof, were built in the wall, the feet of them about a yard above the surface of the ground. Strong spars, called run-joists, were laid along side of the roof, and a number of small spars for top pieces, of fir wood, called wetling, across these, from the top of the roof to the turf walls. Above all these thinly pared turf, made by the breast plough, (provincially, divots, cast by the slaughter spade) were laid on like tiles, but covering each other very closely; and a thin coat of straw, or thatch, tied on by straw ropes, and pinned to the top of the turf wall by wooden pins, was put on every two years. Two or three small panes of glass in the top, and two wooden leaves in the lower part of a small window frame, were in each apartment of the farmer's house, which usually consisted of three divisions, all on the ground floor, and without either ceiling or upper-storey for the most part. The farmer and his servants ate in the kitchen, or place in which the fire was kindled. The master commonly sat on a kind of wooden

1 NSA Ardclach, Nairnshire (1842), 42-3.
sofa, called a long seat, from the back of which a deal or board of wood, 3 ft. long and 1 ft. broad, fixed by a hinge, was let down at the time of meals, to support the place of a table. At other times it was fixed to the back of the sofa by a wooden sneck, to keep it from falling down. On particular occasions, a fire was kindled in the other end of the house, and a small table, made of Scotch fir, and a few chairs of the same kind of wood, or sometimes of ash, with always one, and sometimes two bedsteads, constituted the furniture of this room. A few stones, laid on the ground with clay and sand, and a large thin stone set up before these, also constituted the hearth or fireplace, and a hole in the roof, containing a wooden box of four sides, fixed to the divots and roofing, but open at both ends, constituted the chimney and was called the umb. The middle division was used as a cellar, both for milk and ale; and also as a bedroom for the children. The barns, stables and byres were generally built of dry stone, with loose earth poured into the heart of the wall, for the first three feet above ground; and above the stones 2 or 3 ft. of feal, or turf, were placed, with the same kind of roof with that of the farmhouses, but commonly of weaker timbers, and without any light except what came from the door."

The cottages were simpler again than the ordinary farmhouses. They were "formerly built with dry stones, filled with earth for 3 feet, and the rest of the side walls and gables with feal or turf, like the farmer's offices. Sometimes they were built with turf entirely, and were very mean and uncomfortable dwellings. The Reporter remembers to have seen the cottager and his family in one end, and a cow in the other end of some of the meaner cottages."1

1 Skene Keith, General Report...on Aberdeenshire, 129-130.

2 Ibid. 138.
The byres were often extremely small, about 9 ft. wide and topped with turf, and "so low the cows polished the couples with their backs".  

Marshall's Report on the Central Highlands confirms this description of the houses. There used to be sod houses; now they were mainly dry stone, stopped on the inside with loam. The walls were about 5'6" high and the couples for the roof started about 2'3" above the foundation. Then there was a thatch of straw, rushes, heather or fern, and the gables and ridge were loaded with "feal" - "another vile practice".

The farms and cottages were similar in Banffshire, and the crofters' houses were the last in showing any improvement. They were sometimes of stone and clay-mortar, frequently of stone and turf alternately, and often of turf alone; and the roofs of thin sods were similarly covered in straw.

The situation was not markedly different in Kincardine. There the old farm houses were mainly of turf and stone, without mortar or lime, and were disposed at random. Robertson's description of the first humble efforts at improvement about 1760 to 1770 indicates that there was little change in the essential arrangements. The walls were more compact, about 6'6" high instead of 5'0", and the furniture still provided the divisions of the interior. Bare couple or "kebbers" were the only ceiling. "Fewel" (peat or broom) was kindled on the hearth by the gable wall, and the smoke went out by a hole in the roof or the door. It was probably then, he says, that the cow was expelled and had to have a different entry; but the dunghill "kept immemorial possession of its station by the house door". As in primitive Highland types, the dung was for economy heaved through a hole in the back wall. The barn was a separate range,

1Milne, J. 'The Making of a Buchan Farm', Trans, Buchan Field Club, I, 166.
2Marshall, Report...on the Central Highlands, 1794, 20.
3Souter,D., General View ... of Banffshire, 1812, 89, 97.
and usually the best building, because it had to be weatherproof; its roof, of thin sods, lay on a profusion of shapeless timbers, and was thatched from year to year with straw or rushes.¹

The cottages also are described as having undergone little real alteration for a very long time, and had not changed with the improvements as much as had the farmhouses. The cottager, says Robertson, lives in the same kind of house as his ancestors did in remote times. A stone and turf, or stone and clay, erection, it had usually two apartments, divided by furniture, each with its fireplace and window, of two or four panes of glass. The cottage was usually 30 ft. long and 12 ft. wide, seldom more, and the walls were never more than 6 ft. high. Here the roof had thin sods and thatch tied with straw ropes, and looked much like a "low hay-sow".

Robertson also lists the furniture which might be found in a typical Mearns cottage. There would be two close wooden beds, so arranged as to make a separation between two apartments, one or two wooden chests for clothes, a cask for meal, a set of dairy utensils, an iron pot or two for cooking, a girdle, or heating iron, for toasting bread, a few dishes, some of wood and some stone-ware, two or three chairs or stools, a press or cupboard for crockery ware and the bread, cheese, butter and whisky bottle; and more recently a "tea equipage", now that tea drinking was common everywhere - "a gentle species of ebriety". The total value of the furniture might be between £10 and £20.²

Another description - of Buchan at the time of the Poll Book of 1696³ - adds to the picture. The cottar built his own house and "took in the grun'",

¹Robertson, G., General View of Kincardineshire, 1813, 177-178.
²Ibid, 426.
³Littlejohn, W., Stories of the Buchan Cottars before the Year "One", 1929, pp. 17, 18, 44.
dragging the stones by horse on a drag of wood called a "paddock". After that he dug for clay, which was easily got near the moss, and this was carted on "currocks" over the horse's back.¹

Large rough stones were left jutting out at the foot of the wall as a foundation; then the walls were built up to about 6 ft. The "but" or kitchen end had a gable of stone and clay, and a lum with a rattle-tree and crook.² The "ben" end had a gable of "tough reeske moss sods". On top of the sod gable a stick was put in to fix the top sod of the wall to the others; it was known as the "Craw Stob" of the house. The interior walls were plastered with clay mixed with chaff, and the floors were of clay, well trampled down. The "cupples" were then put on and above them large baulk boards; then came a layer of "tough reeskie divots", and then a thatch of heather fixed on with well wrought clay.

Inside were two rooms, the "but" and "ben", with a "peat neuk" and a "closet" between. Both had "bun-in" beds (box beds), a "deece" with dresser and rack for dishes, a table, a few chairs, all home-made - and that was all. In the kitchen you could see the roof divots, but in the room end there was a ceiling but no fireplace. The outhouses were often built in a row at the end of the house, though later they were formed into a separate square.

The old thatched houses, says this writer, lasted for some 70 to 100 years, depending on the quality of the wood and the thatched roofs. It was, he adds, a matter of some note at that time, when one Margaret Stewart on getting married made the men build a lum at one end inside the wall (i.e. a proper chimney breast and chimney) when they were going to put in the usual open fireplace.

Mr James Black, the factor on the estate of Ellon, was awarded the Gold

¹ Even where local craftsmen were responsible for building they were "all in some degree farmers" (OSA Longside, XV, 282).
² See below, and Glossary of Terms.
Medal by the Highland and Agricultural Society in 1851 for his "Report on the Cottage Accommodation in the District of Buchan, Aberdeenshire". He was concerned to show how much improvement was needed, and did so by making a comparison between two cottages - old and new; a certain exaggeration must be allowed for. His old cottage, with three families, was, he says, a fairly average specimen of the accommodation of a crofter or tradesman of the humbler class, or a married farm-servant.

The side walls are scarcely 5 ft. high. At one side of the door are irregular blocks of stone to form buttresses to the wall; the low gables above the level of the side walls are built of turfs and do not exceed the height of the side walls at the apex by 4 ft. The mason-work consists of undressed surface stones and mortar, and the roof of turfs is overlaid with straw, through which grass weeds are growing. The floor is depressed below the level of the surrounding ground, as a result of the subsoil and the slovenly habits of the inmates. There are two small windows with four panes of glass; there is no ceiling, but visible rafters and turfs covered with soot, which falls off in damp weather. One or two bedsteads in the middle divide the house up into a but and a ben, and "everything happens in the but". There is no ventilation and a total lack of order, cleanliness and personal comfort; as a final touch, there are old bits of clothing huddled beneath the beds.

These houses, says Black, abound in Buchan, especially in the parishes of Old Deer and New Deer and Pitsligo, and in almost every one of the fisher villages from Ythan mouth to Fraserburgh, right along the range of the Dudwick and Stirling Hills, and along the edges of the moorland and mossy tracts, in Strichen, and so on. Their poor quality he attributes partly to the augmentation of large farms in the more fertile places, so that small holders

1Journal of Agriculture, and Trans. of the Highland and Agricultural Society of Scotland, October 1851
were forced to go to pieces of waste land on the side of a hill; partly to the removal of cottars and subtenants by the improving owners to these places; partly to the refusal of farmers to provide houses on their land for married servants.

Strictly speaking, therefore, Black was describing the worse cottages of the later period of the improvements. Nevertheless, the description is the same as that of older cottages, the change among the poorer people being very gradual indeed.

An account of Glenbuchat written in 1906 by James W. Barclay of Glenbuchat gives another detailed picture of the old houses, particularly of their interiors. The houses were built partly of stone, with lime and clay mortar, and had thatched roofs. Hovels still more wretched, made of "divots", were chiefly provided for the "bestial". The old houses, thought Barclay, were unfit for human habitation; he found water running out through the front door to be a normal occurrence.

"Peats were burned in open fires with large hearths and chimneys in some cases 10 ft. wide. At each side of the fire, inside the chimney, were cosy corners: one the recognised seat of the head of the house. The floors were of earth or clay beaten hard, and reeking of moisture; the roof was blackened with smoke.

"The furniture consisted of a 'breast of Plenishing', a sort of framed wooden partition across the house. In this were doors or sliding shutters 3 or 4 ft. square, that by day concealed the box-bed within and sometimes the sleepers also by night. A bed-closet usually intervened between the kitchen and the room at the other end of the house, which might be called the sitting...

room, though people rarely sat in it. Here again was another breast of plenishing with a box-bed, and perhaps a kind of wardrobe. The kitchen was called the "ben" and, the other the "but".

In the kitchen the prominent features in most houses were the "deece" or wooden sofa and the dresser with a rack for dishes above it.

"The roof of some houses was framed like a ship, but upside down. The rafters of the few couples did not rest on the top of the walls but were built down into them, to within a foot or so of the ground, and had a bend at the top of the wall to form the sloping roof. Thus the inside, looking up, had somewhat the appearance of an inverted ship. Of such houses only Beltimb now remains."

(This house was surviving, though deserted, about 15 years ago, and may still be; I was however unable to find it.)

Among other details, Barclay notes the frequent occurrence of a hiding vault, for the produce of the illicit still, under the "deece". This can be amply confirmed by investigating deserted crofts in the neighbourhood, particularly those just over the Ladder Hills in the Braes of Glenlivet, the route between the two having been one of the well-known "whisky roads" leading to the quiet market in Aberdeen. The vault is usually a hole about two to three feet deep, and about 4 ft. by 2 ft. across, fitted with a wooden lid continuous with the floor.

In Sinclair's General Report (1814), based on the County Reports, the state of the houses is summarised and some comparative descriptions are given by Mr Richard Crichton, Architect, Edinburgh, and others. While the turf cottages were disappearing (rapidly or slowly according to the area), the dry-stone cottage with 1 ft. of turf on 5 ft. of stones was still common, though not being built now so frequently. The couples were built into the wall, resting on flat stones specially placed. Stone walls were most common, but cottages constructed of clay, already noted in Kincardineshire, were also to be found in
Dumfries, Perth and Forfar.

Generally, in the South, notably in Berwickshire and the Lothians, the cottages were usually 18 - 20 ft. long and 16 ft. broad, with two apartments, one a living room and the other a store; and they were frequently semi-detached or in rows. In the North East and Central districts, by contrast, they were usually 12 ft. broad and 24 - 36 ft. long, with two divisions - the but and the ben. The rest of the description is taken from Skene Keith's (already quoted). In an Appendix to the Report, Skene Keith comments on the difference in proportion of the cottage types in different parts of the country, relating it to the availability and price of timber. Where home-wood was used, the cottage was narrow, because of the short spans obtainable, and the cheapness of using the tops or branches of fir in place of lath cut by the saw. Thus the North East houses were narrower than the Berwick and Lothians ones, and were also considerably cheaper. These dimensions of the old cottages are undoubtedly accurate. I have checked them in a large number of houses, both occupied and deserted, in all parts of the North East, and the 12 ft. internal width seems to have been a standard dimension, occasionally increased to 13 ft.

A surprising thing about the but and ben, which may already be apparent from previous quotations and which I frequently confirmed by questioning, is that there is some confusion as to which end is the "but" end and which the "ben" end. Though people are quite definite about which is correct, their answers are often contradictory. The fisher folk generally, but not always, maintain that the ben is the best room; in the Highland areas, such as Glenbuchat, it may be the but which is the best room.

The Scottish National Dictionary defines ben as inner, interior, and its usage


as i) describing the best room or end of the house (the most general usage): and ii) describing the kitchen (contrary to general usage). It adds an explanatory note:

"In the old Scottish farm-house or cottage, the outside door opened into the but, from which people passed by another door into the ben. If there was another room beyond, it was called the far ben. Ben comes from O.E. be-innan, binnan, O.Nor. bionna - inside, and but from O.E. be-utan, butan, outside. In the modern house, the but is generally the kitchen end and the ben the parlour, the two being separated by a passage, in the middle of which is the outer door. The change in the position of the rooms has in some districts led to confusion in the use of the old names - e.g. in Banff, in Buchan and the Garioch for older speakers the but is the best room and the ben the kitchen; others follow the general usage and others again are rather indefinite. All, however, use "a but and ben" to describe the modern two-room cottage."¹

It seems to me possible that the difference according to locality may owe something to the historical development of the two or three room cottage from the earlier single room type in which the animals occupied the other end. It may be that, in certain localities, they thought in terms of adding a kitchen to the old all-purpose room, and, in others, in terms of adding a best room to the old kitchen. If the animals were being thrown out of the end they had occupied and which always contained the outside door, it might be a matter of local practice whether one turned it into a kitchen or a best room. At least it seems clear that the very usage of words and the confusion between them indicates in fact the process of development of house types from the simpler to the slightly more elaborate type.

In any case, it is not easy to define the rooms in accordance with our normal modern usage; and this has to do with the use of the rooms. What I have called the kitchen or the but is really a kind of kitchen, dining room and sitting room rolled into one; the other room, or ben, is often a kind of Holy of Holies reserved for strangers, ministers and gentry, even though there may be a severe shortage of space in the house. There are not strictly any bedrooms, because of the provision of box-beds and movable beds in the rooms; recently with the removal of box-beds, one of the rooms may have become a bedroom, and if this has happened, it is possible that the other names of rooms have been altered according to their use now rather than their position in relation to the outside door.

Familiarity with the usage of rooms in modern council houses in this region suggests to me that some attention to the correct names of the rooms and their use might avoid some inept planning based on Housing Manual types from the south, which has the effect of depositing the whole family by firm tradition in the kitchenette for most of the day.

There remains plenty of solid evidence in the shape of actual houses still in use although modified, derelict houses in the remoter parts, and plans of houses in the estate offices, to illustrate these descriptions. The latter source, - plans and elevations in estate offices, - is very useful, and could undoubtedly yield a great deal of information for further study. In many areas, to judge from the spate of activity in the offices at that time, there seems to have been a major effort to rebuild or rehabilitate in accordance with improved standards of accommodation, a vast number of houses from about 1880 to the time of the Great War. The Gordon Estates certainly put through a lot of work, possibly because the older houses had clearly reached the limit of their practical use by then; and this is possibly confirmation of a view expressed by several
writers in the early 19th century (e.g. Skene Keith in his Report on ABERDEENSHIRE, 141), that a good house should last a century.¹ Many of these houses were of the type normally built from the middle of the 18th century. At any rate, the clerk of works in the office normally made a plan at least of the old house, which might be abandoned, enlarged, or turned into a byre while a new house was built; and these plans represent a wealth of recorded information on the old house types. A number of plans and sketches of the houses, from these sources and from sketch surveys on the spot, are given in the illustrations (figs. 23 to 33 and one or two others forming part of surveys of whole farms). The photographs (Pl. 1 - 48) illustrate the same principal points.

The three houses in Nether Auchenreath (Fig. 23) are fairly standard types for Morayshire, a characteristic of which is the existence of an extra room at the end of the house beyond the chimney, which frequently serves as a best room or a business room. This makes the Moray houses rather longer than the usual Aberdeenshire or Banffshire houses. William Petrie's was before alteration a low (6'3" to 7'0" ceiling heights) clay-built house with all the acceptable kinds of floor - wood, broken slabs, trampled earth, and cement - with a collection of box-beds (always 6' x 4' or 6'6" x 4') that formed the partitions ("breast of plenishing") in the middle of the house. It also had the usual dimension internally of 12' width, the main part of the house, 38' 6" long, being a little longer than those in the neighbouring counties to the east. James Smith's was one of those that were turned into a byre in 1898; its plan is similar, 13' x 39' internally, but it has the curiosity of a box-bed tacked on to one of the outside walls. Both of these, and G. Geddes's house, were thatched, and loosely planned inside. Almost certainly some of the

¹ Cf. Littlejohn, quoted above in this chapter, that the houses lasted normally 70 to 100 years.
fireplaces must have been made of wood; these are discussed later in this chapter.

At Nether Dallachy and Broadley (beside Cowfurach) (Fig. 24) were similar houses, also turned into farm buildings at the turn of the 19th and 20th centuries. That at Nether Dallachy was the long Moray type, 43' x 13', with the extra room at the end, conveniently situated to become part of a square of farm buildings. The Broadley example, slightly different inside and 13' x 39', had the once common row of farm offices joined in a line to the house - a derivation of the older black house - the offices being 51' long and tiled, in contrast to the house which was thatched. In both cases the same type of house was erected to replace the old ones.

Two old cottages which I was able to enter and survey, one carefully and the other despite passive resistance by the owner, are at Rathven, Banffshire, and in Ruthven, near Huntly in Aberdeenshire (Fig. 25; Pl. 33 - 39). The Rathven cottage, approx. 13' x 43' inside, is clay-built and was thatched, the thatch held on presumably as the present corrugated iron is, by stones on the end of ropes. It has the standard plan for a but and ben of the better type - two rooms nearly square, a closet in the middle lit by a small window at the back, and a box-bed in each main room constructed of panelled timber. This is the true "breast of plenishing": one of the beds originally had doors, folding back in two leaves, but these had been removed and the panelling altered in position for no very obvious advantage. From the shape of the chimneys, one had probably been at first a timber lum.

The cottage at Ruthven is the Post Office, and is reputed to be one of the oldest houses anywhere in the neighbourhood. From an account of the rather irregular ancestors of the owner, it appears to have been in existence since about 1700; and apart from a minor partitioning in the closet for the sake of the Post Office and shop and the papering of nearly all the wall with wartime posters that tell you to "Be like Dad: Keep Mum", it is virtually unchanged since
the 18th century. The walls are of rough stones and clay with a lime harling, the roof is made of unfinished spars with watling, divots and straw thatch, (now repaired with an old sail cloth and held down by wire netting with half a coat of thatch on top of the lot), the floors as far as I could tell are of earth, and the chimney at the east end is still the old "timmer lum" with a rounded fireback of dung and lime. The pot hangs from a chain supported by a randle-tree in the chimney, about which more will be said later. The internal partitions, which make up two box-beds, are of panelled timber, one of which I think once had doors; there are small windows with four panes of glass each, without pulleys or weights, and the whole simply-furnished interior, with its bellying ceilings, uneven walls, down to the embroidered pictures asking "What is Home without a Mother?", has considerable dignity and charm - a view, incidentally, not shared by the owner, who described the house in two terse emphatic words.

Fig. 26 illustrates a cottage from near Keith, for comparative purposes, and a wider, later type of cottage from near Rothes - both on the Seafield Estates.

The Glenlivet part of the Gordon Estates yields a considerable amount of information on the old houses, in this case, in a declining area with a large number of deserted crofts which have tumbled into ruins, in the form of derelict farm groups. Here again there is evidence also in the plans in the Estate office at Falls of Glenlivet. Fig. 27 illustrates a few cottages, with some details sketched in of the type of fireplaces which were once common in the simpler cottages; at this point it is convenient to discuss these features more generally.

The earliest kind of fireplace was simply a fire in the middle of the room; this was moved to the gable, and in the North East type of but and ben one of the main characteristics is the position of two fireplaces, one on each gable of the house. In this they contrast, for example, with the normal Irish
cottage of the same period, which frequently has two fireplaces in the internal walls, one at the end of the big central room and the other on the internal wall of the room at the other end of the big room. References already given indicate that in a primitive stage the smoke simply went up the gable wall and escaped through a hole on the roof. The next stage in development seems to have been the introduction of the wooden chimney, commonly known as a "timmer lum" or more commonly still as a "hanging lum", from the fact that it is suspended from the wall and roof.

The "timmer lum", which flourished from at least the early 18th century until the latter part of the 19th century, was a remarkable phenomenon. It is not easy to get accurate information about them now, partly because there are few left, partly because those that are left are usually well covered up by later additions, and partly because they seem to be one of those features which spell backwardness to local people and of which they may be ashamed. The row of houses called Knockandhu near Tomintoul, at the turning to the Braes of Glenlivet, was a planned layout originally designated "Duchestown"; at one time nearly all the houses had timmer lums and it used to be known as "Timmer Lum Street"; but, this, I understood from an old man, was a name one did not mention in the presence of any of the tenants of the houses. Nevertheless, there are a few left, and a few more old people delighted to talk about them. Examples illustrated in the photographs come from the Post Office at Ruthven, mentioned above (Pl. 38 - 39), a house at Bogmuir in Spey Bay, where the fireplace itself has been covered by a modern tiled delight, (Pl. 2, 3), a cottage at Burnside of Deskie, Glenlivet (Pl. 41), and a very old cottage in Glenrinnes (Pl. 42, 43). There is also an illustration of a derelict lum from the smithy at Cottartown of Ardoch near Cullen (Pl. 98 - 100), which shows the form of the chimney very clearly; and Fig. 27 indicates the arrangement of them against the gable of the house.
The lum was made in two parts. The lower was a funnel wide at the bottom, often about 5' wide and 2' from the wall, which diminished towards the top. It was suspended from the gable so that its base was at approximately eye level and the upper edge came just below the ridge level of the roof. Then on to this was placed the chimney head, a rectangular funnel which appears above the roof line. Sometimes this part continued to diminish to the top, and the type of chimney is then more easily recognisable.

This simple form is also recognisable because it appears at the top inside the skew coping of the gable; and often where this occurs in the case of a chimney which is now of stone or brick, it is a sign that formerly the house had a wooden chimney. But the slightly more elaborate form did away with this awkward top, which clearly leaves a constructional weakness around the base of the chimney head with the danger of infiltration of damp; in these, the chimney started as a wooden one in the room and was then taken into the wall just above ceiling or eaves level and emerged at the top like a proper stone chimney. In these cases it is not easy to distinguish them, and the majority have been adapted inside to remove the timber part. As an indication of how long ago their construction ceased, I was interested to find that an old and very experienced builder in Aberdeen who remembered seeing them often and even taking them down could not remember what happened to the chimney after it disappeared from the room, and did not know whether they carried on in wood or died into the wall.

Below the hanging lum proper, the fire back was normally curved and hollowed slightly out of the wall or built out from it in a frame to make a full chimney breast. Three long stones, one at each side and one across the top, made the "chimney jamb". The back was filled with small stones and clay, and finished with a lime coating or commonly with cow dung. Parging with cow dung in the upper part of the chimney was common, and several builders to whom I talked had
often carried this out.

At the base of the fireplace, the fire was laid between two stones on which the pots usually rested and the teapot kept warm, known as "binks". For hanging the pots at least two methods were in common use in the North East, both often in neighbouring cottages. In the simplest a chain with a hook for the pots hung from inside the lum, suspended from a bar called a "rantle tree" or a "rantree". This bar either projected from the gable wall (in the case of the usual hanging lum) or was hung parallel to the wall (in the case of the solid chimney). The name indicates its original material, being derived from "rowan tree", a wood which does not easily burn. Informants in the Glenlivet district remembered these made of wood "well up the lum", and in a ruined cottage to which I was directed by an old builder who had been very familiar with them, there were the remains of one still projecting from the gable wall (Pl. 51). Later, and for obvious reasons, they were made of iron, and these are the type one finds in the normal later chimney which is entirely of stone.

From information from builders and from evidence in the houses, it appears that no particular wood was chosen for making the lum. It is often merely constructed of deal, and there seems to be no reason connected with the material as to why the chimneys were not always catching fire. On this point evidence is conflicting. Some people who remembered them say that they were always doing so; others stoutly maintain that they were perfectly safe, and the fact that they were used in smithies seems to confirm this latter view. The facts seem to be that there was no particular reason why they should catch fire unless people were careless. The lower edge of the lum was high up and very wide; the peat fires did not send up huge flames; and the woman of the house being most of the time present, she could easily control the fire if there seemed to be any danger.

But there is more to it than this, because in some cases a modern fireplace has been put in and coal is burned - and still there is not an outstanding record of
disaster. It seems likely that the peat smoke left a tar which gradually coated the inside of the lum and acted as an impervious covering; and this seems to be confirmed by stories that it was most common for a timmer lum to catch fire if it was going to do so, soon after its erection. Certainly there is always a tarry coating on the inside.

In Bogmuir, Spey Bay, I was assured by an old resident that they were much safer than the modern chimney. He quoted the case of a neighbour, who, in order to take out a fire insurance policy on his house, had the timmer lum replaced. The lum set in a thatched roof for many generations had never been on fire. He had a brick chimney built and an asbestos roof put on; and within a year the chimney had caught alight and burnt down most of the house. There are various pinches of salt which might be added to this story.

The timmer lums were not confined to any one district. They existed around Aberdeen and certainly around the coast to Moray; they were known inland from Buchan to the Cabrach and to Glenlivet. Grant of Monymusk refers in his accounts to making "a lumb and bason chimney" which may be this type. And in nearly all districts people recall them - or their derivations, such as chimneys made of old bottomless buckets tied round with rope. A very primitive fireplace was remembered by a man in Glenlivet, which had only a hole in the roof near the gable; the fire was made against the wall and a great tree plank was laid across the wall about three or four feet above the floor from wall to wall, so that things might be hung from it. When it was burnt through, it was put together again and joined.

The remainder of the plans from Glenlivet illustrate the usual but and ben, with its accompanying barns and byres. Fig. 28 shows the normal type, a little

1 Accounts of Sir Archibald Grant of Monymusk, in Hamilton, "Life and Labour on an Aberdeenshire Estate, 73."
wider at 14' x 33', with an addition made in 1912. Nethertown of Glenlivet (Fig. 29) is the longer one, 39' x 13', with a cluster of plenishing, closets and box-beds in the middle. It was built partly with clay and partly with lime mortar, and had an attic floor added in 1834, when the box-beds were removed and an extra sitting room made from their place on the ground floor. The offices were and are of a type very common on the smaller farms, arranged in an L-shape, with byres along one side and barns with threshing machine on the other.

In Fig. 31 is another conversion which shows the old house 13' x 35' internally, and one of 14' x 35'. Fig. 33 gives a further example.

In all these house types there is clearly an approximate standard of accommodation, both in terms of rooms provided and in size. The internal width varies from 12' to 14'; any wider than that are usually a later modification, and the earliest ones seem to have had the smaller dimension. Between 33' and 39' is the usual internal dimension for the whole length, and the majority of the main rooms are from 12' to 14' in length. The box-beds show a great variety in their positioning as part of the partitions in the middle of the house, and there is no great attempt to avoid awkward small left-over spaces. That this has a reason can be seen from the equal and inevitable provision of presses and cupboards - a provision of the greatest importance in farming communities. This factor occasionally provides one of the minor local variations in plans; in places like the Cabrach, which can be quite cut off from supplies for a few months in winter, the meal girders had to be big to see them through without starvation.

Among the distinctive features of the houses should be mentioned two cavities that are often made in the external walls. One is the salt-hole, in the wall near

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1 The box-beds are usually called bun-in beds in the coastal villages (lit. bound-in beds) - not inland.
to the fireplace, so placed that it can be kept dry. The other is the water-hole
or water rest or "stoup-hole", which is just inside the main door with a sill
about 2'0" above the floor. It was and sometimes is used to keep the water
stoup when it had been filled from a well or burn. Of several in the Braes of
Glenlivet, one was 2'6" wide, 2'4" high and 10" deep; another was 2'3" wide,
1'10" high and 1'2" deep.

The structure was designed to allow a detailed view of the methods of construction. As a retired and knowledgeable observer pointed out, a building consisted of four parts in the usual terminology. These were the "bigging o'er", and the "singing o'er" - the walls and roof. It would follow this division, except in the case of the oldest type which is described as first, viz. the orthostat-based houses, in which the top are made of fine charcoal.

Descriptions of houses already quoted have mentioned this type of structure.

It was a widespread form, and is found in several varieties throughout the rest of the British Isles and on the Continent. It is not my purpose here to discuss its use - an investigation which is being made more fully by others. Although the stoup was certainly in use in the North East, though it appears to have been discontinued in the 19th century, and there are now, as far as I am aware, only examples of it left. These hay, however, be a number which are likely in use which will only be revealed on demolition.

The North East type was commonly known as a "stoup-hole" (or "stoup"), and may have been a type of flint axe often found in the area.

Marshall's description was that for the most part, stones and charcoal were used to build the houses, and this is confirmed by found stonework. The use of charcoal is a regular feature in the Glenlivet area, and it is evident that it was used to carry down right into the ground. 1 would say it was a good material to use in these areas.
Chapter 2.

Rural Building before the Improvements (Contd.)

Materials and Construction

If this was the shape of the house and its plan, it remains to give more detail of the methods of construction. As a retired and knowledgeable blacksmith pointed out, a building consisted of two parts in the usual terminology. There was the "bigging o't", and the "rigging o't" - the walls and roof. I shall follow this division, except in the case of the oldest type which is dealt with first, viz. the cruck-framed houses, in which the two are more or less inseparable.

Descriptions of houses already quoted have mentioned this form of construction. It was a widespread form, and is found in several varieties throughout many parts of the British Isles and on the Continent. It is not my purpose here to trace its use - an investigation which is being made more fully by others. A form of cruck was certainly in use in the North East, though it appears to have been discontinued in the 18th century, and there are not, as far as I can find, many examples of it left. There may, however, be a number which are quite hidden and which will only be revealed on demolition.

The North East type was commonly known as a "yird-fast cupple" (earth-fast couple), and yet that seems to have been often just what it was not. Skene Keith's and Marshall's descriptions quoted above say that the couples or crucks rested on stones about 2'3" or a yard above the ground and were built into the wall. And this is confirmed by local memory. The term "yird-fast cupple" is however the regular term in the Glenlivet area and it is possible that there the crucks did carry down right into the ground; I could not find any remaining examples to prove it.

The couples were always in two parts, made of slightly bent timber so that a
rough arch was formed, and they were joined at eaves level by a wooden pin. "The roofing 'cupplies', firmly embedded in the walls at bottom, were fastened with wooden pins a-top to a short cross bar, the roof-tree extending from end to end of the house over this bar, and between the points of the cupple legs."\(^1\) They were remembered on Deeside by a farmer at Crathie; they were known in the rest of Aberdeenshire, in the Highland parts of Banffshire; and they certainly existed in Morayshire, according to a retired professional thatcher who had worked on a number of them. It is recorded of the Dallas parish in Moray that the farm-house couples were made of local planted firs.\(^2\)

According to Dr I.F. Grant, there were five couples in the length of the house\(^3\), and this seems to be confirmed by people who remember them. One informant in Glenlivet thought that they were at 6' centres; another remembered them more vividly as being about at 8' centres, because there was one at the gable and another about two-thirds of the way along the ben wall. This would suggest that in a cottage of the usual size, 32' to 36' inside, there would be five couples, including the couples placed against the gables - a necessary provision if the gables were of turf.

The walls were often made of turf in the earlier part of the period, or else the lower part of them was of stone and the top few courses and the gables were of turf. "The walls of the straw-thatched cottages or huts were composed, in the upper part at least, of 'feal' or turf; or it might be 'heather and dub' or mud and straw."\(^4\)

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1 Alexander W., Northern Rural Life, 10.
2 OSA Dallas, Moray, 1792, IV, 107.
3 I.F. Grant, Social Effects of the Enclosures in Aberdeenshire, 114.
4 Alexander, W., Northern Rural Life, 10.
The incidence of houses built of turf is frequently recorded. In Nairnshire there were "mean, dark and dirty cottages built of turf without order or connection with each other"; in Moray, particularly in the Highland parishes of Dallas, Knockando and Edinkillie, the habitations were "very poor and mean, the side walls being built of turf, and the roof covered with the same materials". In Ardclach, Morayshire, "the houses are in general built of peat, and of some stones in the foundations". Pennant, travelling in 1769, recorded this also. Of Deeside, between Braemar and Ballater, he commented, "the houses of the common people in these parts are shocking to humanity, formed of loose stones and covered with clods, which they call devish (sic) or with heath, broom or branches of fir; they look, at a distance, like so many black mole-hills". At Fochabers in Moray he noted that houses were "here made entirely of turf".

Such houses were, in the Highland parts at least, known as "feal-houses". The side walls, according to an informant in Glenlivet, were made of square-cut divots, and the feal houses were very common. They were also remembered in the Braemar district. Familiar until a later date, however, were those of part stone and part turf, and particularly those with turf gables, a reasonable economy if the roof was being carried on the side walls; since it was quite common not to have a ridge pole running from gable to gable, this was usually the case.

Of the turf gables, there are now hardly any left, and apart from some very decayed examples in the Braes of Glenlivet, one of which is illustrated, I have not seen a good specimen. There are probably numbers of them concealed under subsequent lime and harling, possibly unknown to the occupiers. A cottage which was taken down in Newburgh a few years ago had such gables; and I was shown...
photographs of it taken at the time. The walls were clay-built up to the eaves; the gable had its turfs arranged in a herringbone pattern up to the ridge, with the grass on the upper edge sloping down to throw off the rain. In this case there were stone chimneys which supported the roof-tree.

More commonly throughout the 18th and 19th centuries the walls were clay-built; the old clay-biggings was the general rule for farms and cottages, replacing the unsatisfactory method of using turves.

In Ellon, Aberdeenshire, there are records of the houses that existed before and during the Reformation period. Many had side walls of turf, with divots on the roof, and were thatched with rushes or heather; they were in effect the same as the normal rural cottage. About 1543 a certain Gilbert Annand erected "a house built of stone and lime from the foundation"; and this was sufficiently remarkable for it to be known at the time as the Stone House of Ellon.¹

In the other burghs there were houses of wood, or wood and plaster, and clay or mud-walled dwellings. Houses in the country with a framework of wattles plastered with clay or mud, could, as some of the English invaders noted, be rebuilt in three days. The best town houses were mainly low buildings with "feal" or "thack and rape" roofs.²

But the wall of stones picked up locally and bedded in clay was ubiquitous, and continued on throughout the era of the improvements. To use lime always added enormously to the cost (see costs in Fig. 53). When it was used it was commonly put only into the outside five or six inches of the wall. The walls are nearly always 2'0" thick, and this is so standard that it is a surprise to find a house with the other wall thickness of 2'3". If lime was used on the outside, rather than merely a limewash, it was often in the form of "sneek pointing" or "sneek

¹Mair, T., Ellon before and during the Reformation, in the Book of Buchan (ed. J.F. Tocher), Section IV, 192.
pinning”, or what was more briefly called "snecked with lime". This left the centres of the stones showing, sometimes in very attractive patterns. And an especially attractive final treatment was found in Old Aberdeen and in other coastal places such as Portsoy, and in some of the major buildings, such as Brodie Castle or Letterfourie House - that of filling the joints with small stones in a regular pattern. This was known as "cherry-cocking", and there are good examples of it remaining.

Clay was also used commonly in the finishing of partition walls.1

Clay building is often recorded, and a few examples will suffice. The farm-houses and cottages "are generally built of stone and mortar, sometimes with stones without any cement; and are covered with turf. Within these five years a very few of them have been stob-thatched or covered with a deep coat of straw, - and snecked or harled with lime.

"None of the walls are built with lime; nor are any of their roofs covered either with tiles or slates - yet they are much better than they were before they got new leases."2

Skene Keith observed that the walls of cottages at his time could only be expected to be built of stone and clay; but that if they were built of stone and lime, they would last a century.3 This gives an idea of his view of the expectation of life of the ordinary clay bigging. There is, however, evidence in the shape of many existing cottages that his estimate was rather too pessimistic.

A special kind of walling was carried out in several parts of the North East Lowlands which deserves attention in some detail, not only because it is an unusual technique which has now gone entirely out of use, but also because it

1 Cf. Sir Archibald Grant's Accounts, in Hamilton, Life and Labour on an Aberdeenshire Estate, 118.

2 OSA Keith-Hall and Kinkell, II, No. XLVII, 527 et seq.

3 Skene Keith, General View ... of Aberdeenshire (1811), 141.
produced some of the most interesting examples of architectural character in the region and gives a strong local flavour to the architecture of certain parts. This is the technique known variously as "clay and boules" or "straw and dash" or "Auchenhalrig work"; a number of illustrations of it are included among the photographs (Pl. 5 - 30), mostly from that part of Spey Bay which I have already drawn upon for examples of the older type of settlement and house.

There are in effect two techniques known under these names, and used in the neighbourhood, both of which involve the use of clay and straw as the binding medium. The names are used, as far as I could tell, indiscriminately; but I imagine that in earlier days, when the techniques were current, they would have been used in a more specific manner. In one, stones are used to form the bulk of the wall; in the other, the straw and dash makes a wall in itself.

The former was known as "Auchenhalrig work", a name derived from the fact that the method originated in the village of that name near the mouth of the Spey. Auchenhalrig, pronounced "Auchenharlich", is one of the larger "touns" that form a group, with Auchenreath and the Dallachy's, in Spey Bay. Known now as a village, it consists of a cluster of very charming cottages with gardens along an irregular pattern of roads; and there is no doubt that the majority of its buildings are constructed of "Auchenhalrig work" (Pl. 29, 30). So too are many of the buildings in Nether Dallachy, in Nether Auchenreath and in Bogmuir, and there seems to be ample confirmation that this was the main region of its use.

But it was by no means restricted to this area, being used elsewhere possibly as a result of the publication of its specification by Souter in his Report on Banffshire in 1812. This will be quoted below. In Glenlivet, the former tenant of the Bochel farm remembered, without prompting, that houses in the Braes

1 Alexander, W., Northern Rural Life, II.
used to be built years ago of stone with heather and clay; the last one which survived was at Invernahaven; and he remembered that this kind of work had a name and that it was "Auchenhalrig", though he had no idea where Auchenhalrig was or how many there might be. This is all the more interesting because in Auchenhalrig itself, and in the neighbouring villages, I could not find anyone who had ever heard of the name applied to a kind of walling, and most people were astonished to hear that the walls of their houses could be described in this fashion. To them the technique was "straw and dash" or "clay and boules".

Souter found it sufficiently interesting to give its description a special Appendix; his description is full enough to serve here.1

"A Description of the Mud Buildings, generally known in the County of Banff by the name of Auchenhalrig Work, from its being used at, and near Auchenhalrig, in the Parish of Bellie."

This work is built of small stones and mud, or clay, mixed with straw. The proportions of these materials required to make a rood of 36 square yards, are nearly as follows, viz. about 30 cart loads of stones, 10 cart loads of clay or mud, and 24 stones weight of good fresh straw. When the clay is strong and tough, it will require fully 3 cart loads of sharp water sand. The mode of preparation is thus - If the mud or clay is lumpy, it must be reduced with a mallet, mixed with the sand, and made pretty thin with water; the straw is then equally strewed over it, trampled with the feet, and wrought from the one side to the other, until the whole is of a proper consistency for admixture with the stones.

In building, any kind of stones will answer; even stones from the channel of a river, which are generally round, are preferred by some workmen to any other. They ought not to be larger than a workman can with ease put upon the wall; and though much smaller, they are perfectly sufficient: indeed, large stones are improper, as they prevent the mud from consolidating, and, by consequence, diminish the strength and durability of the walls, which are of much the same breadth as those built with stone and lime: 22 inches are sufficient for a wall of 7' high; if higher, they should be 2' thick, carried up perpendicularly the same as other walls, and care should be taken never to build more than 2 or 3 feet of height above the wall to which they are to be joined.

1 Souter, D., General View ... of Banffshire, 1812, Appendix No. II, pp. 9-11.
in any one part in the same day; if raised more, the wall is apt to swell, for which there is no remedy but to pull it down, and rebuild. To prevent accidents of this nature, the work is so proportioned to the number of hands employed, as to admit of 3 or 4 days for each division to dry, before more is put upon it. In order, therefore, to keep two men constantly at work, one building and another preparing the mud, a wall to the extent of about 40 feet going on at one time is requisite.

Where there is any joisting for grain lofts, &c., there should always be a wall plate of wood one and a half inches thick laid below the joists, and their ends brought within 6" of the outside of the wall: a similar plate is also necessary below the feet of the couples.

These walls are equal to the weight of any roof commonly put on mason work, either slate, heath, mud and straw, or stob thatch. If done with mud or stob-thatch, there should be a good heath brush laid on the wall-head to bear up the straw, and to carry the rain over the walls, as nothing is so injurious as rain falling into the face, or getting into the middle of the wall.

In the course of 2 or 3 years after being built, the frost has generally such an effect upon the mud on the outside of the walls, that it falls off, leaving the stones (which are covered with it when newly built) quite bare. Whenever the walls begin to appear in this state, they should be harled over with lime properly mixed with pure river or sea sand pretty rough; and that the inside walls of barns and grain lofts may be sufficiently close and smooth, it is strongly recommended to do them over with a thin coat of plaster lime, which adheres firmly to the mud. Thus finished, the Auchenhalrig houses are, out and inside, as ornamental as those built entirely of stone and lime mortar.

This work is particularly adapted for farm-offices, and even for dwelling houses, of two stories, and merits attention on account of its cheapness, durability, and warmth, as it excludes every breath of air. The workmanship of a rood costs only about one pound three shillings, and will, when properly built, and kept well under thatch, last for more than a century. Of this there can be no doubt, as in the village of Garmouth, in Morayshire, there are several houses built of these materials, and covered with slate, which have stood upwards of a 100 years, and are at present in excellent condition.

In situations where proper stone materials and lime cannot be obtained, except
at a more than ordinary expense, buildings of the nature now described become an object of high consideration, particularly to tenants who have but an inadequate allowance for houses (which is too generally the case), to whom the difference in the outlay of money is of no small importance.

The consumpt of straw, so essential in the formation of dung, is no doubt an objection which will occur to agriculturists. It may, however, be observed that the quantity consumed is immaterial, and that heath properly prepared, or even rushes or ling (provincially bent) will answer the purpose.

In erecting barns for threshing mills, and sheds for the walks in which the horses move when working them, the Auchenhalrig, is recommended in preference to mason work, as being better calculated for that concussion occasioned by the motion of machinery, because the materials are so strongly united, that when the machine is at work, the whole fabric shakes together as one compact body, and there is seldom a rent to be seen in it. Of this, the shed for the horse walk to the threshing mill at Arndilly, and some others in the County of Banff, built of Auchenhalrig work, afford the most convincing proof.

......

I have been able to confirm the accuracy of this account by reference to the buildings made of such walls which remain and by conversation with builders and plasterers in the neighbourhood. On one point he seems to have been over-cautious; there are many of the walls remaining, which show that they could last more than his century. From his dates, they must have been building such walls in 1700, and they are still finding them in houses in Garmouth today. The houses in Nether Dallachy seem, many of them, to have been built by the present people's great grandparents.

The photographic illustrations from Dallachy and from Cowfurach (Pl. 5 - 24) show the walls in various states, confirming Souter's comment upon the effect of frost on the outside of the wall. The outbuildings in Dallachy in particular show the fascinating effect of the stones when revealed in all their variety of colour once the outer skin of dash has fallen away. The Cowfurach example shows
the effect when covered with lime harling, some of it broken away, and the finished effect on the interior of a gable now derelict, where the straw and clay make a clean, flat surface ready for rendering. The Auchenalrig houses all have accumulated many coats of lime rendering on the exterior (sometimes, I was told, as many as seven might be put on at once), though some have merely a regular lime wash applied to the exterior of the wall - this giving some of the most attractive textures of all (Pl. 29).

The word "boules" indicates the river stones washed down, in this case by the Spey, which accumulate in great banks of shingle ready to the hand of the mason. These rounded stones produce a delightful effect, but require no little skill in placing them in the walls; so that, as can be seen from the illustrations, great care in the laying of the boules on the outer face of the wall in regular rows has to be taken. Here there is still great variation in treatment by different hands. Often, but not always, throughbands of timber are placed in the wall (see illustration from Nether Dallachy) in a regular spacing, of about 2'0'', arranged so that each row of throughbands alternates in spacing with the next one, the straw used as the binding material was preferably rye straw or wheat straw, not oats or barley which rotted too quickly. Alternatively bent was used in Dallachy, and heather in the inland districts where this was readily available.

In effect the "Auchenalrig" walls were a kind of primitive concrete, the preference for small stones to preserve the coherence of the whole structure indicating the approach towards its structural nature. It seems to me that it has distinct possibilities if adapted for contemporary techniques, in making concrete walls with large stones of different shapes, acting as a very attractive aggregate. The Clerk of Works at the Gordon Estate Office in Fochabers, who admires this walling, particularly in its later manifestations when the boules were used in Fochabers with orthodox lime mortar, made an experiment a few years
ago with a boundary wall on South Street, Fochabers (Pl. 303). He constructed a wall 2'0" thick of "boule concrete", using Spey boules randomly selected, together with a mixture of roughly 6 or 7 of sand and gravel to 1 of cement. The wall was made with entirely unskilled labour, the boules and mortar being pressed into a timber shuttering, which was raised as the wall increased in height. Some care was taken to have a fairly coherent number of boules on the outside faces of the wall, but not very much; it would have been better if more care had been taken to arrange them instead of in the main simply pushing them in randomly. He maintained that it was the cheapest wall he had built, and also the strongest. On the former point a hidden cost lay in the fact that he could pick up his boules down the road from the Spey and cart them up in a wheelbarrow; on the latter, confirmation was given when a year later he had to reduce the height of the wall and found it very difficult to demolish. An improvement in its appearance could have been effected if the stones had been more orderly and a hose had been taken to the face of the wall just before the cement dried hard, to remove some of the cement and expose more of the stones as in the older walls. (This technique was used in one of the pavilions in the Interbau exhibition in Berlin in 1957, and produced an excellent interior surface.)

In this area walls were also made of straw and dash without the boules. At one near Hill of Melrose, Macduff, a builder recently added slates and bits of stone to the outside to make the walls look like stone walls for the sake of selling the property. A few years ago a house was demolished in Garmouth which was found to have such walls. Those who saw it being removed were impressed by the strength of its walls and the good state of its repair; it seems to have been one of the older houses in the place, and had therefore been standing for some 250 years.

A plan of Kingston and Garmouth in the Estate Office at Fochabers made
(probably by Thomas Milne) in 1780 gives the height and materials of all the houses in Garmouth at that time. Most were of mud, straw and thatch: several one- and two-storey houses were of stone and lime and were slated: there were three three-storey houses which were slated, and two small tiled buildings.

With the straw and dash proper, the walling was erected usually in a timber framing, and this was used for both interior and exterior walls. It was noted in 1868 that a large number of the houses in Garmouth "are made of clay kneaded with straw and built into a frame and then harled over with lime".¹

This practice of adaptations of it were known in many parts of the North East Lowlands. Pennant noted of Buchan that "the houses in this country are built of clay, tempered in the same manner as the Israelites made their bricks in the land of Aegypt: after dressing the clay, and working it up with water, the labourers place on it a large stratum of straw, which is trampled on it and made small by horses: then more is added, till it arrives at a proper consistency, when it is used as a plaister, and makes the houses very warm. The roofs are sarked, i.e. covered with inch-and-half deal, sawed into three planks, and then nailed to the joists, on which the slates are pinned".²

This style of wall construction is also noticed in Kincardineshire. Robertson in 1813 considered that it deserved to be taken notice of. A house of clay, with a small proportion of straw, could be erected in a short time at moderate expense - about 1/4 to 1/6 per yard of wall 2 ft. thick. "It makes of all houses the warmest dwelling, being impervious to either wind or rain." It was very durable and "when whitened over with lime-plaster has even a dashy appearance". It was

¹ Watson, J. & W., Morayshire Described, 1868, 301.
² Pennant, T., Tour in Scotland, 1771, 121.
apt to lose this plaster in a few years on the east and south sides of the house, and the walls there might fall sooner than the rest. As a mode of building it had long been in use in Kincardineshire; though not very general at any time, it was still kept up in particular places, where earth rather than clay was tenacious.¹

He notes elsewhere that of the houses built in Lawrencekirk subsequent to its erection to the status of Burgh of Barony in 1781, many were of clay with thatched roofs;² it was therefore still a common form of walling at that time.

As a practice it was not unique to the North East. Cottages were made with mud or clay walls in Dumfriesshire and in Perthshire at least.³ But it was one of the techniques which went to the making of local character and still has provocative possibilities.

The roofing varied, but in the old houses was mainly either turf or thatch. During the 18th century a far greater use was made of slate and tile; but these can best be left to the next chapter, as they represent part of the trend of improvement in housing.

Alexander again gives a description of the old form of roof, used with the crucks or "cupples". "Stout binders, formed of saplings sawn up the middle, were placed horizontally down the rib of the roof, and over these again transversely the 'watlin', consisting of smaller sticks split with a wedge. The 'watlin' which, with the cupple legs and binders, was quite visible from the interior, carried the

¹ Robertson, G., General View ... of Kincardineshire, 1813, 186-7.
² " " " " " " " " " " 207.
³ OSA Dornock, Dumfries, II, 22.
    OSA Errol, Perthshire, IV, 490.
'divots', and these latter the 'thack', ordinarily fastened on with 'strae rapes' "1. If crucks were not used, and the more usual roof construction of spars (also known as "cupples") was employed, the timbers were such as could be found locally, and were not usually finished. Around Tomintoul they had used wood from the Glenmore forest, natural fir, and it became extremely hard and lasting. If on some, a roof-tree or ridge pole was run from the apex of the gables and helped to support the spars, this was by no means universal; often the spars were roughly joined at the top and the sarking if it were there or the binders held them in position. The spars were spaced usually at about 2'0" centres. Timber was frequently the most difficult material to obtain in the right quantity, and this influenced the style of the house.

Skene Keith notes an interesting functional reason for the shape of the roofs in the ordinary cottage built during the 18th century. The cost of wood had risen considerably; within the previous 30 years (he was writing in 1811) it had risen to six times its original price, whereas stone had not risen in price so much. This rise and the cheapness and goodness of granite "has occasioned those plans of cottages and farm-offices which had pavilion roofs to be less eligible now than formerly".2 In other words it was cheaper and more practical to build gables of stone than to construct hipped roofs; and this economic factor was presumably the main reason for the ubiquity of the normal roofs to be seen in the illustrations. It is extremely unusual to find a hipped roof built before the very end of the 19th century except on special and more expensive buildings.

The roof structure, moreover, was made very simply without much use of iron or any fastenings other than wood itself; and this operated to preserve the elementary

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1 Alexander, W., Northern Rural Life, II.
2 Skene Keith, General Report ... on Aberdeenshire, 140.
nature of the construction. The wright "did his part without calling iron very prominently into use. He could 'knit the cupples' and set up the whole roof timbers of a house, mainly, or indeed wholly, by the aid of stout wooden pins driven into wimble holes. Even when slates came into use as a roofing material, they were attached to the 'sarking' not by iron nails but by hardwood pins. And in the construction of a box-bed, or the hanging or fixing of a door, the resort to iron was wonderfully minimised. In the case of the barn implements, including flail and thrashing floor, it could be dispensed with altogether." 1

The earliest roof covering was simply made of sods, or divots, a primitive practice that went out almost entirely with the agricultural improvements. The use of turf continued, but in connection with the fixing of straw or heather thatch.

A retired mason in Tomintoul who remembered the roofing of houses with turf recalled that having cut the sods one started covering the roof from the corner at the eaves, working up at an angle so that the sods formed diamond shapes. The heathery side, he said, was on the inside and the mossy side on top.

Nearer Aberdeen it was also recalled, along with such further uses as putting turfs on top of pantiles and then claying the lot over or covering it with cement. Near Braemar a farmer recalled turf roofs, the divots cut like flat tiles and laid in the same manner. One he remembered later had shingles put over the top of the divots, and rabbits could run along between the two.

In summarising the materials available for building in his General Report on Agriculture, Sir John Sinclair drew together useful notes on the various means of thatching in Scotland, 2 most of which applies to the North East Lowlands. In drawing a contrast between bad methods and good ones, he mentions the primitive

1 Alexander, W., Northern Rural Life, 156-7.

roofs of rude branches and trunks of trees, with sod or turf. True thatching, however, he strongly recommended, classifying it under three kinds. There was thatching with reeds in particular places where they were available, thatching with heath, and thatching with straw. The heath thatch was mainly in the hilly districts and was the most durable of all thatching. The best was in the counties of Roxburgh and Clydesdale, and thatch of that type had recently been introduced into Caithness. Straw thatch had been more common formerly; now (1814) the straw was valued too much by the farmer and it was seldom used. It had the disadvantages of being liable to fire and vermin, It required great skill and usually professional thatchers; it was still used for detached cottages. He recommended that the rise of the roof should be half the span.

A note, taken from the report on the northern districts of Scotland, gives useful advice on the technique; it corresponds to recollections of thatchers today.

"The straw must be thrashed whole in the sheaf, that is, without untying the band that keeps it together. After corn is thrashed off, put four sheaves into one bundle, and make as many bundles of the same size, as may contain a quantity of straw necessary for your purpose. The thatcher then puts up his ladder, within three feet of the right hand gable, and spreads out one of the bundles, on the lower part of the roof, between the ladder and the gable. If the roof be covered with divots, or thin turf, the thatcher must twist the upper part of the straw into a knot, then with a stick, prepared for the purpose, force the knot, thus formed, either under or through the divots, so that it may have a firm hold of the roof; then spread the lower part of the bundle of straw nicely on the roof, then clay all over, and begin another tier or row.

"Wheat straw is by far the best for the purpose; next, rye straw; strong barley straw is preferable to oats. The thatch should not be thinner than 6"; and when it is 8" thick, it is the more durable. Divots, or thin turf, were originally thought the best foundation; but it is now found by experience, that it rots the straw, and that straw alone, stitched with rope yarn, lasts infinitely longer.

"The thatcher gets 6d. per yard (for workmanship), and pays his assistant out
of that allowance. If straw alone, stitched with rope yarn, is used, it will last 20 years; but the straw must be laid on 2" thicker than when clay is added. A roof thatched with divots, straw and clay, in the common way, will last from 17 to 10 years; it can be mended also without raising any part of the roof that is entire. This kind of roof is much less liable to catch fire, than straw roofs without clay."

Of the types summarised by Sinclair, all were used in this region. Heather was popular, being used not only on houses and byres but also on churches (see below) in the Highland parishes and along Deeside. It was pulled up by the roots, made up into bundles and laid on the roof. It made a light, durable and warm roof, and was reckoned by some to be good for 60 years. It was being used in Moray until well into the 19th century. Farm buildings in Aberdeenshire and Banffshire also commonly had a heather covering. Other materials were used with it; Grant of Monymusk's Accounts contain references to some of them. Thus in 1736 "for pulling heather to thatch houses"; again "to divoting houses": "To putting on broom upon a house at E. Mains".

In the Braes of Glenlivet and nearby a considerable variety of thatching was used. The mason in Tomintoul quoted above recalled the use of rushes, and made a strong point of the need to put a fillet in by the skew tabling. Heather and broom were used extensively; (Pl. 45). The previous tenant of the farm of Bochel in the Braes once thatched the farm himself with broom. It had turf and heather ("you need the heather") already. He gathered the broom in bunches, cut the stem and stuck it

1 E.g. Anderson, James, General View ... of Aberdeenshire, 1794, 98.
2 Cf. NSA Alford 500; NSA Monquhitter 767.
3 Hamilton, H., Life and Labour on an Aberdeenshire Estate, 57.
5 Ibid, 112.
into the heather and then bent it down. Then he cut the easings (eaves) neatly, and made a ridge piece of green divot. The whole thatch was held down by netting wire, with pegs on the gables and the side walls, and a clay flashing was made round the chimney "like modern pointing".

At Tomnavoulin, the postman's house was formerly covered with broom, taken from the masses of broom that grew beside the house. Broom was a roof that many people could make, whereas straw thatching, according to the retired postman, was a professional job. The bundles of broom were similarly stuck into divots, which rested on the couples crossed by thin birch trees. (These laths across the spars were known as "pans"). The broom was stuck in by the cut end, and was given a coating of clay. A wire was stretched across near the "easing", and a large clay strip was fixed along the ridge to hold it down.

On the coast of Nairn a useful material was the prolific bent, the houses being "properly thatched either with straw or with bent from the downs along the shore"; at Culbin indeed the removal of bent in large quantities may have contributed to the loosening of the sand-hills and the disastrous inundation that swamped the village.

But straw thatch was the most important variety, and it was of two kinds. The most common one placed the straw on top of divots of turf, which acted as insulation and additional waterproofing. It could be held down either with clay or with ropes. The ropes formed a net, the vertical ropes being known as the "rapes" and the horizontal ones as "etherings"; they were tightened so that the pattern was one of irregular diamond shapes, and were fixed to pegs on the gables and below the eaves. The clay roofs reduced the amount of rope needed. Thus in Aberdeenshire at the end of the 18th century the most common form was "thatch and divot", formed first of the divots (thin sods pared off with a special spade), then thin coats of thatch fastened on with straw ropes "crossed through each other in a net-like fashion".

1 Donaldson, J., General View ... of Nairn, 1794, 21.

2 Anderson, J., General View ... of Aberdeen, 1794, 99.
A later improvement of this was "stob-thatch", when a coat of straw of between 5" and 10" thick was firmly fastened to the binders. A contemporary improvement removed the divots, which could be homes for vermin, so that the thatch rested on "backs" or rough laths.

The straw thatching around Spey Bay is still carried out by the local people. The cottage at Bogmuir illustrated (Pl. 8) had had its thatch renewed by the occupier, an old man, shortly before I met him. Before that it had lasted for about 25 years; "nowadays it did not last as long". The material was rye straw, which formerly was taken from the surrounding fields, but was now scarce and expensive and had to be bought and supplied on the site by the estate. On this house the old thatch is still below; he removed the top, put the straw down in bundles and held it with clay, then put more straw on top and more clay. The ridge is clay too, the eaves are clipped, and a cement pointing is put in at the skew tabling. The clay from the ridge, he pointed out, washes down with the rain and helps to keep the roof down; the ridge itself required to be touched up every now and then.

This man was insistent that this was not the true thatching, where you had one man in and another out, binding the straw and tying it round battens. This lay either on divots or else on rough sarking.

On the western side of the mouth of the Spey, thatching with straw and clay is still continued with some enthusiasm by the Innes estate. Because of this there are many thatched cottages in a good state of repair, and the village of Urquhart is almost a textbook of straw thatching (Pl. 304 - 311). One of the tenants there, Mr Starkie (Pl. 304), is really the last of the old professional thatchers. He is now retired and does not foresee a long future for thatch. He recalled carrying out work in many parts of Moray and Banffshire, and confirmed the main points already made. The Urquhart houses illustrate the system well; when I was there some had
old thatch due for repair, some were in process of renovation, some has just been restored. All had clay thatch, and the ridges were of clay, mixed with small gritty stones, or occasionally of turf. The old thatch was only removed where it was rotten, and the top layers were replaced, using the clay to bind it. At the gables, the majority had skew copes, this being in contrast with southern types where the thatch is taken over in a verge; the cope is said to save the thatch from being lifted by the wind. In one or two cases the thatch was taken over the gable wall and a timber barge board was fixed to keep it in position; this was said to be an older system.

Nowadays the thatching is carried out by a man who took it up late in life and is not regarded as a professional thatcher. He lives in a nearby hamlet, is employed by the estate as a thatcher, and has a full time task. He only carries out thatch with clay. He uses rye straw, which is placed, not on divots, but on "backs" resting on the couples.

Other localities where the thatch is still used and to be seen are at New Pitsligo in Buchan, a village in which most of the old houses have rather rotten-looking roofs of "thack", in this case it being mostly stob-thatch, bound with ropes. South of Aberdeen, on the Kincardineshire coast, there are several groups of cottages with thatch in good repair. A number from Burnbanks and one from a little row at Altens Haven are illustrated (Pl. 337 - 343); they are cottages belonging originally to people who combined small crofting with salmon fishing. In earlier days there were many such cottages along the coast.

But another fishing village, Findhorn on the Moray coast, has an unusual collection of thatched roofs. These belong to the straw and clay type in the main; the characteristics of it can be seen in the illustrations (Pl. 439 - 451). Here most of the ridges are made with turf, held down to the top of the roof with wooden pegs, which can be seen projecting from the ridge. There is usually a wire along
the eaves, sometimesetherings over the skews fixed with pegs into the gable.

This account of the old houses and attached buildings covers therefore a fairly long period, which saw a steady improvement in their standard. The change at the end of the 18th century is often commented upon in the pages of the New Statistical Account. In Deskford parish, for example, the minister noted that the style of buildings had improved and there were now "few or no black or feal houses. Even the poorest contrive to get them built of stone and mortar of some kind or other".1 In the parish of Aboyne, "the farm-houses with lum2 and earthen-floor have entirely disappeared, and in their stead plain and comfortable erections have been built with chimneys, and one end at least floored with wood; and those erected within the last few years are slated, and generally of two stories".3 In Moray, the account of Duthil parish similarly notes that the "turf-built farm huts of former years are fast disappearing, and succeeded by stone and lime cottages, whose white-washed walls, and straw thatched roofs afford a pleasing contrast with their dingy predecessors."4

Even then the factors operating to keep the houses as simple as possible were well known, and contributed to the maintenance of the local character of the buildings. One was the limited range of materials. Another was cost.

Robertson's report on Kincardineshshire gives a summary of the expense at the

1 NSA Deskford, Banffshire (1836), 74.
2 Meaning a wooden lum.
3 NSA Aboyne, Aberdeenshire, (1842), 1064.
4 NSA Duthil, Moray (1838), 134.
time of his writing (1813) of different standards of cottage, which indicates very clearly the economic factors in dictating much of the local style.

Expense of building a cottage with general hovel for a cow

--- Stone and turf, with peat on layer of brushwood, and whole surmounted with thin coat of thatch, tied on with straw ropes ................................. 50/- to £3
--- Stone and clay for mortar, and rest as above, needs more labour ........................................... 15-20/- more than above.
--- Solid mason work and roof of foreign timbers, and stub-thatch, sewed on with ropeyarn .................. £15 to £20
--- Covered with grey or blue slate ......................... £20 to £25

These primitive cottages and houses have in the main disappeared. One of the reasons has already been noted - the use of their walls for manure. They "now lay in the bottom of their dunghills, either the turf walls of old houses, or dikes ... and everything else till it all undergoes its putrid fermentation".  

Also the agricultural improvements made a great sweep-away of the older types. Nevertheless an occasional cottage does remain today, and even where many alterations have been made to them, it is still possible to see the original form beneath the improvements. What is particularly interesting historically is that despite the consciousness of the improvers of the changes they were making, the newer, improved cottages were not in fact markedly different in type from their predecessors. Their plans, it seems clear, were developed less from study of model plans from elsewhere than from an improvement of the existing type. In short the house type can be seen as a strictly functional artefact, conservative its slow modifications; it is not necessary to relate it to outside influences to see a steady local change - a change, not so much in plan, as in the standard of workmanship and materials.

1 Robertson, G., General View ... of Kincardineshire, 1813, 187.
2 Skene Keith, op. cit., 439.
Chapter 3.

Rural Building after the Improvements - Layout and Plan Types

The agricultural revolution of the 18th century was perhaps the most significant factor in creating the architectural character of rural Scotland as we know it today. The majority of the farms and their associated cottages, and the majority of the specialised rural buildings, date from the late 18th to the beginning of the 20th century. In the North East Lowlands there developed a local architecture which changed very little in its essentials until the time of the Great War.

The agricultural change has been discussed in Part I. For most of Scotland, the years from about 1770 saw the most widespread improvements\(^1\), with the replacement of the old farm houses by two-storey types and the building of regular courts of farm offices. In Aberdeenshire the changes started in places before that, but the majority took place from about that time until well into the 19th century, writers in the New Statistical Account emphasising this change over the last 50 or so years constantly. Thus the minister of Logie Buchan, who had the unusual experience of writing both the original Statistical Account in 1794 and the new one in 1846, described these vast improvements in building: "the low-thatched farmhouses and long continuous rows of barns and byres are now converted into slated dwellings of two stories, and adjoining courts of offices".\(^2\) In Banffshire the beginnings were made by the Earl of Findlater from about 1754; in Moray improvements were slow from about 1746, and were accelerated by the Earl of Fife after 1768\(^3\); but in both again the bulk of the changes were slightly later.

The farm sizes became larger. Although individual places might see a reverse

\(^1\) Sinclair, J., General Report ... on Scotland, 1814, 132.

\(^2\) NSA Logie Buchan, Aberdeenshire, 1846, 799.

\(^3\) Souter, D., General Report ... on Banffshire, 1812, 72.
Donaldson, J., General Report ... on Moray, 1794, 16.
trend, as farms were once again broken up to find land for younger sons, by and large one man controlled far greater areas of land than he had done previously, and a sharper distinction was drawn between the farmer with his substantial dwelling and offices, and the unpropertied labouring classes. The average size of farm discussed in Part I, those of about 150 acres, contrasting with the smaller crofts of about 50 acres or the large farms, particularly in Moray, of up to 300 acres, began to have their boundaries drawn at this time.

Figs. 19 and 20 illustrate the change diagramatically, in relation to the farms of Glassgreen and Overtown in Moray. They show the enclosure of the fields, the replacement of the old ridge system of cultivation, the planning of new farm houses and courts of offices; and the figures appended indicate the reclamation of substantial areas of land. Such examples are commonplace. By comparing plans by Thomas Milne in 1775 of the Lands of Glenlivet with a later survey by George McWilliam in 1839, a similar story can be read in that Highland region. Even by 1775 Milne notes that some of the fields had been squared and enclosed, and common land divided among the tenants; he pleads for more, and by 1839 much more had obviously been achieved. The old Upper Town, Mid Town and Nether Town farms of Glenlivet were still there as names, but they were now single farms with courts instead of the cluster of small cottages surrounded by strips of runrig.

The new buildings were erected by enlightened and progressive landlords, and the early ones became models for others to follow. In this a marked stimulus seems to have been given to building by the publication of plan types and notes based on the better ones, in the Agricultural Reports of around 1810 to 1814. Some of these, with notes, are sketched in Fig. 53, together with an example of later date that shows the application of the standard recommendations.

In Moray a pattern was set by Mr William Donaldson at Moneton, near Elgin, who

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1 Taken from plans of 1764, 1768, 1818, in Estate Office, Cullen.
2 Gordon Estates Office, Glenlivet.
was the first to build a regular set of farm offices. From Banffshire, Souter drew the example illustrated – a humble enough complex of buildings whose like can be seen in many parts of the county. The specification notes are particularly informative of the standard demanded without being at all lavish. The Aberdeenshire reporter, Skene Keith, remarked on the influence of farmers coming from south in deciding on regular plans, and on the importance of proper allowances for building made by the proprietor. His example was that of Wester Fintray, belonging to George Skene of Skene, and farmed by Robert Walker, one of the most progressive farmers in the county. In Kincardineshire, Robertson quoted and illustrated the farm of Stone of Morphy, four miles north west of Montrose.

In all these accounts mention is always made of the need of full allowances for building. The poorness of the older farm buildings was in great part due to the trivial allowances and the difficulty of obtaining the value of any work done if the tenant were to move; so that he had little or no encouragement to lay out his small capital in improvements. The better informed landlord made sure of a proper evaluation, and thus could encourage good building; by doing so he could also insist on a minimum specification for any work done. Such specifications were often in the form of printed regulations - the private equivalent of our bye-laws. James Ferguson of Pitfour, whose estate was of some 30,000 acres, demanded under the heading of Houses, that all walls were to be "of stone and lime, or stone and mortar, outer course laid and sneck-pined with lime, and to be at least 2' in thickness, and shall be covered with slate, tile or stob-thatch only, and not with divot; that the windows of the dwelling house shall all be of glass, and shall not

1 Donaldson, J., General View ... of Moray, 1794, 23.
2 Souter, D., General View ... of Banffshire, 91-6.
3 Skene Keith, G., General View ... of Aberdeenshire, 134-7.
4 Robertson, G., General View ... of Kincardineshire, 1813, 182-3.
be less than 8 sq. ft. of window." Then he made an allowance to the tenant of £2 sterling per rood for walls, including lime and building and also some quarrying if necessary. The expense was not to exceed a year's rent; if it did, it was not paid for but could be bought at the end of the lease.¹

Timber work was often bought from the previous tenant, and similarly sold at the end of a lease. In other cases, materials and carriage were allowed, and the building was the responsibility of the tenant.² Similar demands were made for the building of field dykes.

All these provisions had an effect in standardising farm types and specifications. Sir John Sinclair in 1814 was able to draw together the recommendations from different parts of the country, and provide advice for future building projects. That his recommendations represented the pattern set from then onwards by estates in most districts seems clear; from the middle of the 19th century, these offices were working with standard specifications and layouts. Sinclair's summary serves as a good description of the requirements in the improved farms, and is a model programme of essentials.³

¹ Quoted in Skene Keith, op. cit., 199.

² As other examples of the working of leases in relation to improved standards of construction: in Alford parish, the most frequent practice was for the landowner to advance the necessary rough wood, and the tenant to execute the building at his own expense, receiving an obligation for payment at the end of his lease, of the value, determined by arbitration, limited either to a maximum sum or to a certain plan and specification of houses agreed on by the parties (NSA Alford, Aberdeenshire, 511).

In Kintore parish, the dwelling houses "must all be of stone and lime and on an approved plan, before melioration can be obtained" (NSA Kintore, Aberdeenshire, 662).

In Tarves, stones could be found anywhere, but slates and wood were supplied by the Earl of Aberdeen (NSA Tarves, Aberdeenshire, 673).

Generally, compensation was given on removal for "all their walls (if either stone and lime or stone and clay, snecked or pinned with lime) and also for wood, slates, tiles, and stob-thatching, i.e. a coat of straw from 9 to 12" thick put on the roof (Skene Keith, op. cit., 132).

Sinclair, J., General Report, 1814, 133-162.
First, the principles to be attended to in the construction of farm houses. These are: situation— as near as possible to the centre of the farm on an elevated site with the house fronting south and shelter from the north; command of water, especially when having a threshing mill; access by road; economy and scale—proportionate to the size of the farm; and judicious arrangement—symmetry not being important. He reckons that from £50 to £100 a year can be saved by arranging the house and offices intelligently.

Then, the accommodation required. A small farm of 50 to 100 acres can manage with a cart shed and granary store, a barn, cattle shed, byre for cows, stable, court or straw yard and the house— the court usually being a parallelogram with the long sides running from east to west and the plain wall on the south side so that it can be easily enlarged. (This accommodation can be seen in most of the farms illustrated.)

A bigger farm of perhaps 300 acres or more requires the following:

1) Farm Houses. They should command a view of the court. Their size is regulated by the farm. On one of 200-400 acres, a parlour, kitchen, scullery, pantry and dairy on the ground floor, and 4 bedrooms on the upper floor are enough. On larger farms, 2 parlours, business room, kitchen, back kitchen, pantry and dairy on the ground floor, and 4 or more bedrooms above are required.

2) Barns. Level floors are required, as hand threshing by flail is still done. With barns with threshing mills, three forms are possible: (i) a straight line on one side of the court, with the threshing mill near the middle, worked by a horse course, wind tower, or water wheel on the outside, the corn barn at one end and the straw barn at the other; (ii) one corner of the court, with the mill at the corner, the corn barn on one side and the straw barn on the other; (iii) the centre of the north side, in the form of a T, with the straw barn in line with the court and the corn barn projecting out from its
centre into the stack yard, the mill at the end nearest the straw barn and the horse course in one angle. (Both the first two types and versions of the latter can be seen in the illustrated plans, Figs. 28 - 53.)

18' to 20' inside width was common; narrow ones could have Scotch fir timbers and heather thatch: broader ones, foreign wood and slates. 35' x 20' is reasonable, and 60' x 20-24' for really large farms. Recommendations are made for preventing infestation by vermin - infilling between scantlings, broken glass mixed into clay floors for 3' around the inside of the walls, openings for cats under the floor.

3) Granaries. Either over the threshing floor, or more commonly over the cart sheds. On detached sheds, a method of excluding vermin is to discontinue the side walls about 2' from the top of the cart shed, and have smooth round pillars with stone copes projecting one foot round the top of each.

4) Stables. Commonly now 16' to 18' wide, with stalls 5' wide x 7'8". He gives elaborate detail about feeding methods.

5) Feeding houses, where turnip husbandry or soiling are practised. Again there are various plans for arranging the feeding stalls. It should, like the stables, be paved.

6) Cow Houses or Byres. Much as above.

7) Calf Houses or Pens.

8) Dairies - with milk-room, scalding and churning-room, and store.

9) Poultry House.

10) Pig Houses.

11) Boiling or Steaming Houses. For the preparation of food for the animals.

12) Cart-Shed and Repository for Implements. Often and conveniently below the Granary.
13) Root-House – for turnips and potatoes.

14) Stack or Rick Yards.

15) Straw Yards (or Courtines). Dung-pits etc.

This list has been given in abbreviated form but still some detail because it summarises exactly the elements in the kind of farm which can be seen in all parts of the region. The plan types are mainly a small number of possible variations of the arrangements of these units.

Sinclair next gives recommendations for "Houses for Proprietors of Moderate Fortune, who Reside on and Cultivate their own Estates"; and here his model type seems to me to be clearly echoed in what are today "gentleman-farmer's houses". These were the "middle order of proprietors", magistrates, deputy lieutenants, etc., they needed a house with simplicity and elegance both outside and in, with good views, lighting with few windows etc., they were rarely more than two storeys in height. Sinclair's plan is a piece of copybook provincial Georgian, with hammer-dressed masonry, belts and quoins of polished freestone, and various grades of crown glass. Such houses, he says, are 6d. a foot for the house, 5d. a foot for the stables, and 4d. a foot for the farm-offices and cottages. He advises square buildings to keep down the cost of the outer walls. Stynie Farm in Moray (Pl. 70 – 73) appears to be very much in line with these suggestions.

In an Appendix in the same work, a "Description of the Smaller Farm-Houses" is given by Dr Skene Keith. The common form now, he says (1814), is a house with a kind of second or attic storey, with 3'-5' of wall above the floor, and the space divided into two garret rooms. This is common of farms of 60 to 100 acres (see illustrations). It might have 12' of side

wall, and be 16' wide and 36' long internally. In his area (Aberdeenshire) he finds many neat two-storey farm houses "built in the last thirty years". The extremes are between a single house 14' or 15' wide, 30' long and 14'–15' to the eaves, and the double house 30' wide, 50' long and 20' to the eaves; between the two lie the majority of the houses of the rather larger farmers. Clay walls are best for the one-storey houses, with stones and clay for the first foot, and then the clay and straw, built one foot at a time.

The smallest two-storey house would have a kitchen at one end and a family room at the other, with two bedrooms and a closet on the first floor, and two small garrets for corn, lumber and inferior bedrooms as wanted. The 200 acre farms would have a 21' x 48' house, 18' to the eaves, with an outer kitchen and washing house, a parlour with bed closet and a public room on the ground floor, and four bedrooms, a closet for books and papers on the first floor, a bedroom in one of the garrets and a small cellar at the foot of the stair.

The farm offices for the small farmer with 40 to 50 acres should have a stable (12' x 13'), a cowhouse (20' x 12'), a house for young cattle (18' x 12'), for calves (9' x 12'), a granary and cart shade (12' sq.), poultry houses (8' x 12'), and a threshing barn (40' x 12'). The whole offices, (120' x 12' inside the walls) are generally two sides of a court, with the house on the third side and a stone wall with gate on the fourth.

Middle sized farm offices, for farms of 100 to 150 acres, require a house, a barn with threshing machine (60' x 16'), stable (30' x 16'), common stable (10' x 16'), a cowhouse (20' x 16'), cowhouse for three-year-olds (20' x 16'), the same for two-year and one-year-olds (18' x 16' and 17' x 16'), calves'house (13' x 16') and a cart shade with granary above (22' x 16'). The total length is 210'; with 40' for feeding byres and

1 By "double house" he means a large one for a farm of over 300 acres.
10' for the turnip storeroom, the whole offices will require 260' x 16'.

For the large farmer he gives as an example the farm of Wester Fintray (420' x 20' broad over the walls), which has already been mentioned.

Examples of these new farms and farm houses are to be seen in most parts of the North East Lowlands. The pages of the New Statistical Account testify to the type by the 1840's. In Glenlivet there were now many "excellent slated dwellings two stories high", and the farm of Wester Deskie (see Pl. 65) was "the admiration of strangers". In Ellon, the steadings where new-built were tiled or slated, but mostly slated; where older, they had thatch or heather. In Turrif there had been great improvements, especially in the internal arrangements; but the cottages were not as good as the farms. And on the most impressive estates, particularly in the case of the Home Farms, some very elaborate steadings had been erected of which the heritor could be justly proud. Such were the kind of squares with arched gateways and towers with bells, as that at Carnousie, Forglen (pl. 74) or the smaller one (1776) at Letterfourie, Banffshire (Pl. 75). The farm offices at Gordon Castle were erected in the early 19th century, "presenting a range of buildings which, for amplitude, utility and elegance, are certainly unrivalled by any in the North"; they form a square, dominated by a huge tower; but they are now much transformed, having on the day I visited them caught fire and been extensively ruined while I watched them.

At Gordonstoun, near Elgin, was built the famous "round square" which now forms part of the school buildings, and there are several other examples of this kind, usually less complete but always associated with a

1 NSA Inveraven, Banffshire, 137.
2 NSA Ellon, Aberdeenshire, 919.
3 NSA Turriff, Aberdeenshire, 1002.
4 NSA Bellie, Moray, 119.
proprietor's mansion. There is one at Aden House near Mintlaw, Aberdeenshire, and another curved block at Dallas Lodge, Moray. On fashionable estates, influences from the south, coming presumably from the spate of books on ornamental cottages published in the early 19th century, led to more fancy experiments; thus several farms "on the estates of Caskieben and Dyce are built in very ornamental style, usually that of the *cottage ornéé*. But although such examples are to be seen, often mildly *ornéé* with curly bargeboards on an otherwise plain dwelling, it cannot be said that they had an important effect on the local character of the rural architecture, remaining as oddities in the normal landscape.

The more usual plain and suitable group of buildings is described in detail for Kincardineshire by Robertson. The present fashion (1813), he says, in the small farms, is to have a house about 32' to 40' long with 7' high walls 14' wide inside. There is a door in the middle and one window at each side. At one end is the kitchen, with a clay or earth floor; at the other is a room for the master, with a grate, often a deal floor, usually two close wooden beds, one or two presses, an oaken table, a chest of drawers, three or four chairs, an 8-day clock and a small mirror. In the kitchen end are a plain wooden table, a few stools, and a long fir table. Between the two is a small trap or ladder kind of staircase to a low garret above the master's end; and here are the meal ark, the cheeses and lumber; it might also be used as a spare bedroom. The milk is usually near the staircase about the middle of the house, in a small cabin lighted from a hole in the back wall, with a single pane of glass. These houses are "beginning to be roofed with grey slate". The stables and cattle houses are better, and are usually thatched; but there is no order or symmetry. This description, he says, applies to the small farmhouses and to all those in the wilder parts.

The bigger farms, however, are mostly two-storey, with a blue slate

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1 NSA Dyce, Aberdeenshire, 127.
roof, a 40' to 50' frontage, and an internal width of 16' to 20'. On
the ground floor they have two apartments for the common use of the family
and the reception of friends, furnished in an "elegant and modern" way.
On the first floor are the bedrooms. The kitchen, pantry, cellars, milkhouse
and brewhouse are generally in a range adjoining the house and extending
backwards from the middle as far as necessary. The steadings are a short
distance away, in the form of a court.¹

This description can be seen confirmed in the illustrations. As
far as the steadings are concerned, one of the features which requires
special mention, and which obviously forms an important unit in the plan,
is the mill barn. In this area they are now usually out of use; they were
originally worked either by water or by horse-power. In the parish of
Auchterless, the first threshing mill was erected in 1791; by the time of
the New Statistical Account nearly every farm of 50 acres had one.²
Between 1806 and 1836 thirty one mills were installed in farms in the parish
of Alvah; seven were driven by horses and twenty-four by water.³ It made
a tremendous difference to the prosperity of the farm. Mr Milne, of the
croft of Atherb in Buchan, worked hard until he could afford a threshing
mill in 1856 to replace the use of flails - "the threshing mill," he says,
"was a great factor in the making of Aberdeenshire".⁴

The water mill involved the construction of a mill dam and lade,
which is one of the common features of 19th century farms (see Pl. 62, 69);
the machinery was simple, and wooden wheels were the normal thing (Pl. 53).
The horse course worked similarly, and the circular course itself can still
be seen occasionally along the outside of the mill barn range. It usually

¹ Robertson, General View ... of Kincardine, 1813, 179-181.
² NSA Auchterless, Aberdeenshire, 290.
³ NSA Alvah, Banffshire, 164.
⁴ Milne, A., The Making of a Buchan Farm, 165.
had two horses, but sometimes four or even five might be employed; opinions on the relative merits of the water or horse power seem to have varied. In Glenlivet apparently it was never covered, as it was further south and occasionally on Speyside. This could be a nuisance, when drifts of snow blocked it in winter.

The plans and elevations of the improved farms are arranged to show first in the Glenlivet district the development from the old farm type. Figs. 30 and 32 to 46 show both steadings of increasing size culminating in the impressive range of Drumin (46), and the farm houses that accompanied them. (See also Pl. 56-67.) Figs. 48 to 53 show other examples from the Seafield Estates, together with some of those put forward as model types. (See also Pl. 68, 69.)

The many alterations and additions made to the farms and noted in the plans did not make any fundamental change in their form. The most significant alteration in modern times has been the introduction of closed cattle courts. There are cases of these built in the last years of the 19th century, but in the main they date from the years preceding the Second World War. They are simply covered areas in which the cattle are put: a development of the old dung court. Sometimes they are built as a separate unit near the other farm buildings (Pl. 66), but usually they are made by covering the dung court. This is the most convenient method; a way can be left around the court to provide access for feeding or a central passage can be made.

The construction of these is almost standard on any estate. The walls are of concrete block or hollow concrete block, usually unharled, and the roof is covered with corrugated asbestos. The roof construction is

1 They were well known then in Kincardineshire. Further north they seem to have arrived later except on the bigger farms. Meikle Bettie farm on the Seafield Estates, Banffshire, had one made (timber trusses and slated roof) in 1893, Rames had its dung court enclosed and roofed in 1891, Remachy (part of the court) in 1913. There is a good early slated court with crow-stepped gables at Ardoch Farm, near Cullen.
preferably a timber truss (usually TDA type); steel and the former corrugated iron do not withstand well the rising ammonia fumes. It seems probable that within the next few years all the open courts will be covered in, so that the whole steading is virtually under one roof. Clearly any entirely new farm built on this basis would acquire a very different form from the ones being discussed here; their development therefore may be seen as having nearly reached its end.

The cottages that accompanied this spate of farm building or now appeared in the old cottar towns were not so advanced as the farm houses, but compare more with the small farm buildings described above. Nevertheless they did improve in standard and became the commonest kind of rural building in the region. In Banffshire they were said to be much superior to anywhere else north of the Grampians, made of stone and clay, pointed or harled with lime and properly thatched with straw; a recent improvement had been the replacement of the old board in the windows by panes of glass. They still had earth floors.¹

The new use of glass is one of the main features of the improvement. Glass windows only began to appear in small farm houses south of the Forth about 1752. The usual kind of window, common in the small burghs in the 17th century, had two panes of glass above and wooden doors below; this type was still being made in the north by the second half of the 18th century. The new type was a simple casement window of four panes, usually, as Dr Johnson noted, without pulleys or weights, but held up either with a block of wood or by means of a nail fitted into a hole in the frame. They remained small until the end of the century.

In Aberdeenshire, Dr Skene Keith recorded that the cottages, "are

¹ Donaldson, J., General View ... of Banffshire, 1794, 23.
now generally built with stone or clay; and artificers, or the better sort of cottagers, have the walls of their houses snecked with lime. They are generally from 11 to 13 ft. wide within walls (12 ft. is most usual) and from 24 to 36 ft. long, having always two divisions, or what they call a butt and a ben, the one for a fireplace, with a bed for some of the children, if there be several of them; the other for a press and a bedstead, sometimes two bedsteads, one for the father and mother, and the other for such of the children as are young. These cottages have generally no ceiling above and only an earthen floor below; but a fire is sometimes kindled in both ends, when any of the family is sickly. They are thatched with straw once in two years, like the farmers' offices formerly; have generally two windows, about 2 ft. by 18 inches, containing four panes of glass. But some of them have three or four windows, and are ceiled above in the one end, either with the thin backs of deals, or with a coarse coat of plaster. They cost from L.8 to L.10 for the inferior kind, and from L.10 to L.20 for tradesmen's houses."

And Mr James Black, the factor on the estate at Ellon who described so unflatteringly the old cottages, found the same of the "better sort now being erected" (1851). They had higher walls, better plans, larger windows, stob-thatch, tiles or slate. The floors were of wood or composition of clay; there were two small but airy garrets of use as bedrooms, the walls were plaster-lathed and the rooms coom-ceiled. Such cottages were common on the estate of the Earl of Aberdeen, and were being increasingly built on other estates as well.

Mention should also be made of some of the specific groups of cottages. A group of cottages arranged in a row at the Home Farm at

1 Skene Keith, op. cit., 138-139.
Cullen House is shown in Fig. 54. This was recently modified and brought up to modern standards of accommodation. Other such rows can often be seen; there is a good one on the road from Banff to Cullen, near Banff, an excellent but derelict row at Torphins in Aberdeenshire, a corner row on the main road north of Old Meldrum. And there are other groups again associated with reclamation schemes that entailed placing detached cottages in a methodical pattern according to the acreages of land allotted to each tenant.

One such has left the row of cottages at Mosstodloch, west of Fochabers, in Moray (Fig. 47 and Pl. 79). The cottages themse_lves are ordinary but-and-bens, clay-built and originally thatched. In a plan of 1860 by George Gordon¹ they are shown laid out along the road, each with a house and outbuilding, and a front and back lot of land. The front is usually 0.1.10 acres and the back has about 2 acres of good land and 0.0.20 acres of rough; the total of the Mosstodloch Crofts and Plantations being 55 acres. This is a crofting foundation.

A more extensive one remains in altered form in the Bauds of Cullen, near Findochty. A "Plan for Intended Improvement in the Bauds" was made by George McWilliam in 1820.² It involved a rectangular layout of roads along the rough land³ not far from the sea, between it and the main Cullen to Fochabers road. All the crofts were placed at regular intervals, and each had approximately 8 Scots acres of land. There are three parallel roads, and a cross road between every four crofts; each house has a small garden or yard to the south. The scheme did not work out exactly as planned.⁴

¹ Gordon Estates Office, Fochabers.
² Seafield Estates Office, Cullen.
³ A Plan of Findochty and Portknockie Lands 1766 (by Peter May?) describes the land as "a large tract of moor and heath called the Sheep Hill where the fishers of Findochty and Portknockie and the other neighbouring tenants cast turf and fewel".
The roads were made, but only one pair of houses found their position as on the original plan; mostly the lots were bigger and the houses were placed by the crofters in such a position on their land as they thought most suitable. This pattern of rectangular strips with pentiled cottages, and outbuildings, remains today as an example of an early 19th century reclamation scheme.

The materials and construction of the improved rural buildings have remained so much part of common usage today that it is not necessary to record them in such detail as those in Chapter II. A brief summary is therefore given of the main features of the walls, roofing, chimneys, and roofs.

Emphasis has already been laid on the effect of the standard specifications, issued to tenants as conditions for improvement grants from the landlord, and on the standardising influence of the drawing up of plans in the estate offices from about the middle of the 19th century to the present day.

Such specification notes are abbreviated with the plan of the early 19th century farm given in Fig. 51. The following notes are taken from a standard specification kept in packets with similar blank forms in the Gordon Estate Office at Poolewe.

This man was in fact the Rev. J.D. Kyle, the architect of the N.C. houses at Poolewe.

The employer to supply all parts, quantities and sizes of materials, stones to come from the quarry at or their adjoining stone area on the farm.

Lucrative work, such as rebel, limekiln, pot, kiln, sawmill, quarry, tabling, planter blocks etc., to be of good material and free from decay or other quarries where there is good stone.

Battens to be of lime tree the sizes and be 10/2 measuring of clean sharp pit or river sand. 6" of lime, all well watered and beaten.

Foundations to be of large size and of stones projecting 3" on each side of the walls.
Chapter 4

Rural Building after the Improvements (contd.):

Materials and Construction

The materials and construction of the improved rural buildings have remained so much part of common usage today that it is not necessary to record them in such detail as those in Chapter 2. A brief summary is therefore given of the main features of the walls, rendering, floors, and roofs.

Emphasis has already been laid on the effect of the standard specifications issued to tenants as conditions for improvement grants from the landlord, and on the standardising influence of the drawing up of plans in the estate offices from about the middle of the 19th century to the present day.

Such specification notes are abbreviated with the plan of the early 19th century farm given in Fig. 53. The following notes are taken from a standard specification kept in printed form with necessary blanks in the Gordon Estate Office at Fochabers; the particular use of this one was in connection with the "Erection of Farm Buildings at Feshome for Rev. J.C. Kyle".

This man was in fact the Roman Catholic Bishop of the district, and the architect of the R.C. church at Buckie (1853).

The employer to supply all rubble stones and sand and carriage.
Stones to come from the nearest quarry or from outlying stones on the farm.

Dressed work, such as soles, lintels, rybats, scuntions, corners, tabling, plummer blocks etc. to be of hard freestone from Covesea or other quarries where there is good freestone.

Mortar to be of lime from the kilns near Keith, with 3 measures of clean sharp pit or river sand to 2 of lime, all well soured and beaten.

Foundations to be of large flat bedded stones projecting 5" on each side of the walls.
Rubble walls to have regular courses approx. 12" or 14" high, with band stones in every course not exceeding 5' apart, built from the inside and the outside alternately.

All stones to be packed solid with chips and lime.

Cement pointing on the wheelhouse.

Walls to be sneck harled out and in, stones to be left as free from lime on the face as possible.

OR rubble to be pointed outside if desired.

All dressed work joints to be pointed with an equal mixture of Portland cement and lime.

Doors etc. to have scumtions and lintels dressed 1" on the ingoes.

Windows 4" on the ingoes.

Throughband rybats to breadth the walls; rybats and scumtions to be header and stretcher alternately; chisel arris on the angles.

Tabling to be 12" broad, dressed on top, with chisel arris on angles and checked for slates.

All byres, stable, turnip shed and loose box to be laid with well selected causeway stones, bedded and blinded with stand and firmly beaten down.

Whole of roofing to be covered with best quality of Port Dinorwic, Tynycoed, or Port Penrhyn slates, 13", 14", or 16" long, by 8" or 9" broad and not less than 1/2" thick, but the slates must all be from one quarry.

Slating to be shouldered with haired lime, joints of serking striped or pointed with lime.

Ridges to be covered with large sized Auchindoir ridgestone well bedded with haired lime.

Timber to be all of homewood from the Gordon Castle Sawmills, except flooring and door linings of foreign timber.

Safe lintels to be 10" deep at wide openings, 6" deep at the rest.

Roofing, rafters to be 7" broad at bottom and 6" at top and 21/2" thick; ties to be 5" by 21/2", valley rafter 8" by 3".

Couples to be on wall plates 7" x 1" at 16" centres, all covered with 2" deals, joinings of serking to break band every 2 feet.

Other provisions deal with ventilators, skew plates, window frames (deal), flooring to the lofts, trevice posts in the stable and byre, etc.

The Rev. Mr. Kyle's building was typical of many. Such walls for instance of coursed rubble with infilling chips and snecked harling are common; and the provision that with snecked harling the faces of the stones
should be left as free as possible from lime was observed. Probably the commonest kind of farm wall in the North East is of this type, and the skill of the mason is expressed in the attractiveness of the patterns created by the snecking. The alternative was a wall built with clay mortar but snecked similarly with lime. Thus in Alford, "the farm house and steadings are all built of durable stone, of which there is everywhere a good supply near at hand. Most of them are with through lime; but some are only with clay and sneckpinned with lime."\(^1\) Lime was used also in the plastering of interior walls; but again the use of clay was continued, often mixed with chaff, especially for partition walls in the less prosperous houses.

All kinds of stones continued to be used, depending on their availability, but always with a preference for freestone such as Covesea for corners etc. The walls are never less than 2' thick if they are laid with clay: the outside 5" or 6" being built with lime. With wholly lime mortar, they might be narrower, 18" to 20".\(^2\) Along with the requirements for the proper slacking of lime and for not leaving it too long to sour, the usual demand is nearly always made that sand should be clean and that sea sand should not be used, as it retains the damp. This seems to have been in the coastal districts a provision highly honoured only in its breach; even today lorries can be seen carting away sea sand to fulfill the standard modern specification.

The other type of wall which came into increasing use in the 18th and 19th centuries was the brick wall, supplied with materials from the local brickworks detailed in Part II. They were commonly used in internal

1 NSA Alford, Aberdeenshire, 500.
2 Sinclair, Sir J., General Report, 258.
walls, rarely for external walls; most of the bricks are said to have been a poor foundation for harling, causing efflorescence and throwing the harling off after a short time. They required saturation in water to aid cohesion with the lime and preferably double burning to be fit for outer walls. One of the uses to which they were put was to form corners and rybats, two courses of brick forming the inband rybat and the next two courses the outband rybat. The hollow bricks, made with two holes through the breadth of the brick, were sometimes used on edge as a decorative device.

Apart from ordinary harling and the sneeked harling or pointing mentioned above, the other surface device characteristic to the North East was the continued use of "cherry-cooking", the small chips of a hard stone such as granite or whin fitted into the pointing. It was used both with broad sneeked pointing and in closely fitting squared masonry. An example of the former at Portsoy is shown in Pl. 377; one of the latter at Letterfourie House near Buckie (1773) in Pl. 138. The 18th century rebuilding of the south wall of King's College Chapel in Aberdeen was carried out in this way, and another excellent example is that of Bourtie House, near Inverurie, Aberdeenshire.

Floors were either of wood, brick, flagstone, clay or composition. Wood floors were usually made with narrow fir deals varying from \( \frac{3}{8} \)" to 1\( \frac{1}{2} \)" in thickness on joists at 14" to 16" centres. They were either tongued and grooved (the tongues being often known as "feathers"), or they had straight edges and dowels ("doolies").\(^1\) Imported wood from Norway or the Baltic was used in special work. Flagstones were used on the ground floor mainly in passages and outbuildings, laid on sand or lime; sometimes these are found to be discarded in favour of bricks laid on

\(^1\) Sinclair, J., op. cit., 271.
Clay floors were very common in cottages. The ground was levelled with stone chips and broken bricks or forge ashes, and clay mixed thoroughly with straw was laid on to a thickness of 3" to 6" and beaten down. Alternatively the straw could be dispensed and a mixture of clay, brick dust or burnt sand and pounded forge ashes, with slacked lime, could be laid down. An elaboration of this was introduced to Scotland by Mr Erskine of Mar, taken from a system used in Norfolk (and also, at least, to my knowledge, in Cambridgeshire and in Leicestershire). With this a first floor could be made by laying rods (twigs) over the joists, then putting on a mixture of clay and straw with at least 1" cover, and giving it two more coats with mortar clay, to a total thickness of 3". The next year it could be given a coat of plaster. Better again was a floor made with lime and sand on strong laths or narrow boarding, laid on in two coats of 1" thick each.

For roof coverings, the two significant developments in the 18th century and the early 19th were the expanding use of slates and tiles, the demand for them being met and also in part created by the opening up of slate quarries and brick and tile works.

The use of slates became more widespread. In the 17th century they were mainly the prerogative of wealthy people, and of town houses in the burghs. In Cullen they were building "sclaitit" houses 25' long and "twa hous hight" in 1614; in Banff a few houses were slated in the same period. The rural buildings received slates instead of thatch mainly in the early 19th century.

1 Sinclair, J., op. cit., 268-270.
2 Crammond, W., Annals of Cullen (extracts from the records), 28.
3 NSA Banff, 17.
4 Cf. NSA Alford, Aberdeenshire, 500. NSA Deskford, Banffshire, 71.
The Macduff slates, the Foudland slates, the Cnocfergan slates and the other minor varieties quarried in the North East were all heavy slates and were laid on in the form of random slating, working upwards in diminishing courses. The later, imported Welsh slates, were standard sized, and were lighter; but though they were sometimes preferred for this reason, the local slates were said to have been the best, and there are many roofs made with them to be seen still. The slates were fixed in one of two ways. They could be laid with plaster lime on to sarking and nailed, or they could be hung with a wooden pin over laths (called in Banffshire "reins") and rendered with lime on the inside. The latter, in the experience of the Clerk of Works on the Seafield Estates, was the usual method in Banffshire. On tiled roofs it was common to use three rows of slates at the eaves to prevent the breaking of the end tiles. The ridge was normally cut of freestone or later made with a special fireclay piece. At the gable, skew tabling is almost invariably used, with a tilting fillet for the slates. It was generally held until the end of the 19th century that a verge would be lifted by the wind.

The local pantiles were extensively used in the districts served by the tile works (Pl. 111). Because of their location a concentration of them is noticeable in the fisher towns, and these will be discussed later. Inland they are commonly seen on farmbuildings and outhouses and on the smaller houses; and this use is perhaps symptomatic of their qualities. For the pantiles have always provoked argument as to their usefulness. For instance, "tile roofs are neat and clean and when new are better than the other (thatch and divot) but expensive and do not last well". Tiles are "the worst of all coverings". The main

1 Anderson, J., General View ... of Aberdeenshire, 1794.
2 Robertson, G., General View ... of Kincardine, 1813, 186.
objection was and is that they let in water; the second is that they are too heavy.

They were used because they were the next cheapest covering to thatch and divot. The disadvantage was that they are very variable and can be porous and liable to damage by frost; they absorb about a seventh part of their weight in water. The real problem seems to have been caused by the way in which the roof was constructed. Sir Archibald Grant of Monymusk evidently appreciated the problem: "Oy. If tyles pretty flat, first fogged and then limed - wont be tight and if not a tard roof under them next year".¹ The trouble was that they were always laid on to laths without sarking; and then the gaps were filled to keep out the air by pointing up the inside with plaster lime. When the water continued to come in, in the fisher cottages especially, they were then pointed outside as well; the next stage was a complete coat of cement, and finally tar still in an attempt to cure leaking. By this time the tiles have rotted under their covering and whole flakes come off in the frosty weather.

The infiltration of water is in fact caused by capillary action, and there would be no trouble if all this pointing was not carried out. At Lintmill, near Cullen, there are two houses, one with unpointed pantiles which are quite satisfactory and the other pointed and giving continuous trouble. On farmsteads the pantiles were in many ways ideal provided no pointing were done, for they let out fumes and moisture and let in good air, preserving the timbers for often upwards of a century. The pointing was essentially a cure for draughts, and it seems probably that if they were laid on sarking and a felt were used (or Grant's tarred surface), they

¹ Memorandum on Lint and Corn Mills, 1748 (From Sir A. Grant's Mem. Book, in Hamilton, Life and Labour, 142).
would be perfectly satisfactory. As it is, they remain curiosities in being one of the most delightful features in the local character of the architecture, and yet one with which the tenants of the houses would have dispensed immediately if they could have afforded anything else.

In the Middle Ages there are a large number of other buildings and architectural features which are of the greatest significance in the creation of local character. About many of them there is little to be said beyond a description of them. This chapter is intended to cover a variety of such features, but not in any detail. They are best seen in illustrated form, and Figs. 85 to 104, together with Figs. 105 to 114, are given extensive space for this reason. The types of buildings illustrated include mills, chapels, dovecots, bellfounders, blast furnaces, distilleries, bridges, and other works; and there are included too examples of the castles, country houses, and churches in the North East. These latter do not in one sense form part of the local or vernacular architecture, but they have an important bearing on it, because of the influence they exert on the use and development of local materials and methods of construction. In the case of the churches, the widespread erection of new parish churches at the end of the 18th century in country districts did make a direct contribution to the local architecture. Again, they are best seen in illustration. This chapter describes a series of explanatory notes on a wide range of illustrated buildings.
Chapter 5

Specialised Buildings

In addition to the farms and cottages of the rural parts of any region there are a large number of other buildings and architectural features which are of the greatest significance in the creation of local character. About many of them there is little to be said beyond a description of them. This chapter is intended to cover a variety of such features, but not in any detail. They are best seen in illustrated form, and Pl. 85 to 204, together with Figs. 56 to 64, are given extensive space for this reason. The types of buildings illustrated include mills, smithies, dovecots, tollhouses, brickworks, distilleries, bridges, and other works; and there are included too examples of the castles, country houses, and churches in the North East. These latter do not in one sense form part of the local or vernacular architecture; but they have an important bearing on it, because of the influence they exert on the use and development of local materials and methods of construction. In the case of the churches, the widespread erection of new parish churches at the end of the 18th century in country districts did make a direct contribution to the local architecture. Again, they are best seen in illustration. This chapter therefore consists of explanatory notes on a wide range of illustrated buildings.

The field dykes are in the main a legacy of the agricultural improvements of the 18th century. With the enclosure of the fields, the removal of the old rigs and the clearing of huge quantities of stones from the fields, stone dykes were a natural and practical way of killing two
birds with a large number of stones. Before the improvements, the ordinary field barriers were temporary hurdles, called "flaiks", used to protect the crops from animals. The new barriers were of dry stone, usually with three or four rows of turf ("feal" or "faile") on top to act as a coping. Sir Archibald Grant of Monymusk left in his papers many agreements for such work, which describe such features: "6 qrs. hight of good stone wall, and three row of faile". The stones were to come from the enclosed field, and the laird gave help in the form of transport for the stones. Other lairds were not always so obliging.

Sometimes the quantity of stones found in the field were more than enough for the purpose, and consumption dykes were built — dykes of great size intended to "consume" the stones. The most famous in the North East, at Kinswells, is now a National Monument; the West Dyke is 27 ft. wide at the top, 6 ft. high and 500 yards long; the East Dyke is 7 ft. wide at the top and 334 ft. long. All along the middle of the top of the West Dyke there is a pathway made by careful laying of the stones. It was built about 1780.2

Because of this source of material, the dykes are composed of widely varying types of stone, and are in effect a geological guidebook to the structure and drift of the district. The leases made by the improving landlords saw to the standardisation of the dykes as they did to the farms, though there are still noticeable differences in the construction of the dykes from place to place. Thus the Earl of Aberdeen demanded that any enclosing "must be done with stone dykes, 3' thick at bottom, 18" at top, and 4' high, covered with feal of 6" hight — or else ditches 6' wide at top, 1' at bottom, 3' deep, with quickset thorn hedge

1 In Hamilton, Life and Labour, xxvi (from Agreements with Workpeople, Dec. 1758).

2 Cf. Rainsford-Hannay, F., Dry Stone Walling, 7-71, and also for a detailed account of the techniques of dry stone walling.
on thrown up bank, within 9" of surface of ground or lip of ditch”.¹

The kind of barrier was thus usually either a drystone dyke, an earthen wall or a ditch with a thorn hedge. The latter became popular following the experiments by the Earl of Aberdeen, and there are many notes in the New Statistical Account on their introduction.² In Banffshire, Souter considered that the best construction was of sunk, or faced dykes (a northern version of the ha-ha). The best way was to cast a trench about 2 ft. below the natural surface, and raise the excavated mould into a bank 4'3" high. The earth part was built perpendicular, "each course of sod well flatted, pared and beaten". After half the height was built, it was allowed to subside, then completed. Then a stone facing was built up from the bottom of the trench. The bottom stone was the largest, and the stone work diminished from about 14" to 12" at the top. Above the stone, two courses of sod were to be laid, projecting a little over the stone facing, "thus giving them nearly 6" hold of the earthen backing, with which they soon unite, excluding rains and binding the stone to the turf bank".³ A drawing of a similar fence exists among the Gordon Castle Papers, and was obviously a commonly specified type.

For dividing fields, says Souter, stone walls 3'9" high, 3' wide at the bottom and 18" at the top with stone coping at least 6", making a total of 4'3", was desirable. Flagstones for coping, set on edge, were preferred when available.⁴ This is the same type as the Earl of Aberdeen's, and is certainly the most often seen.

¹ From Earl of Aberdeen's printed regulations, Article 5; Skene Keith, General View ... of Aberdeenshire, 186.
² Cf. NSA Tarves, Aberdeenshire, 674; NSA Alford, Aberdeenshire, 512.
³ Souter, D., General View ... of Banffshire, 140.
⁴ Ibid., 141.
Mills of different kinds are one of the chief groups of rural and urban building. They played an essential part in the organisation of rural life and before the increase of transport facilities were much more widespread than they are now. The old system of "thirling" a tenant to a certain mill belonging to the landlord was regarded as in many ways an evil, leading to the danger of extortionate practices on the part of the miller. But it made the mills a focus of activity for a certain district from early times. In many cases it is possible to trace the existence of a mill on the present site back to the 12th or 13th centuries.

Carnousie Mill, at Forglen, is one of these. There has been a mill there, it is recorded, from 1266; and it is one of the last meal mills that function today in the same manner as it has for over a century. The present buildings date mainly from the early years of the 19th century (Fig. 56 and Pl. 85-88). They are built of stone with a slate roof, and the accommodation is in the simplest form - the millhouse itself with grain loft over, at one end, and the kiln for drying added on at the other. It is powered by water, the wheel being at the far end of the mill house from the kiln. A curious feature is the existence of an old chimney vent in one wall of the mill, which appears on the outside just below the eaves. The kiln is of the standard type, with the furnace below heating the drying floor on the upper level.

Other mills illustrated show adaptations of this simple form from the smallest (e.g. Mill of Laggan, Glenrinnes, Fig. 56) to the larger and combined ones (Durn Meal Mill, Fig. 58; Mill of Rathven, Fig. 57 and Pl. 91-2; Crooks Mill, Keith, Fig. 59 and Pl. 93; and Tynet Mill, Fig. 60 and Pl. 94). In the larger ones, the components - machinery, mill, granary and kiln -

1 The present miller, Mr Lipp, is something of an antiquarian, and is a source of much information on the working and location of the old mills.
are the same, but there may be two mills, combined, and various ancillary buildings. Many of the furnaces and kilns were additions made in the latter years of the 19th century.

The location of the mills is simply controlled by the existence of water power, and they are therefore concentrated along certain burns, often in great profusion. The sketch of a map of Old Cullen in 1764 (Fig. 72) shows how many mill lades might be taken off from a burn to run different species of mills in a small area. The Boyndie Burn had seven corn mills on it in the early 18th century, and around Forres (Pl. 90) and at Elgin there was a great concentration of them. The river Lossie formerly turned mills at Dallas, Craigmill, Scroggiemill, Sherriffmill, Oldmill, Bishopmill, Deanshaugh, Newmill and Waulkmill. Dallas had a woolmill, Scroggiemill was an early 18th century corn mill, Sherriffmill is one of those that date from early times (1237), Bishopmill another (it belonged to the Bishop of Moray from at least 1187, and was a meal and flour mill and later a tweed mill), and Deanshaugh was in turn a lintmill, snuff mill, meal and barley mill, and sawmill. Oldmill sits near what is regarded as the oldest mill on the Lossie, the Bow Brig (1630).

These other mills, connected with the development of the linen trade etc., were more in the nature of small factory buildings. Grant of Monymusk erected a spinning house, a weaving shop and a lintmill, which had three workrooms - a Scutching Room, a Heckling Room and a Bruising Room, which sound as though they would have been ideally suited for local council elections. A small wool mill at Tomnavoulin in Glenlivet, which is simply two large rooms, one above the other, is illustrated in Pl. 95 and 96.

Smithies are simpler buildings still; linked often to a dwellinghouse

1 Macfarlane's Geog. Coll., I, 243, 244.
2 Douglas, R., & Watson, W., The Lossie from Source to Sea, 5, 32, 70, 72, 79.
for the blacksmith, they were constructed in exactly the same way as the ordinary farm buildings, with stone walls built with clay or lime, with firstly thatched and later slated or pantiled roofs. They consist basically of the smithy proper and an adjoining shoeing shop. The smithy itself usually had an internal width of about 15 ft. and a length of anything from about 20 to 30 ft., and sometimes there are two hearths (see Fig. 61). In several cases there was evidence that in former times the smithy had a wooden chimney, and one of these is illustrated to show the details of such a construction; it is that at Cottartown of Ardoch, in Banffshire (Pl. 98-100). Most of the smithies have now gone out of use, or been converted, if they are in a convenient position, into petrol filling stations and small garages.

A noticeable feature on the main roads is the occurrence of tollhouses, now used as cottages without any specific function. They were erected with the opening of the turnpikes in the years from 1795, when the first turnpike was opened, to about 1840 (see Part I). The tollbars were swept away in 1865 and the tollhouses were sold at the same time; so that in the short period of their use they were built in a fairly uniform style. This does not differ much from the style of the usual better class cottage; they were always substantial, small and neat, with a small garden - though in some cases because of their proximity to an important estate or town they might have slightly more elaborate detailing around the windows or by way of barge boards. Set beside the toll bar, their characteristic feature is a gable end on the road which is either semicircular or three-sided, with two windows so arranged as to allow the tollkeeper to see clearly up the road in both directions (Fig. 52, Pl. 102).

Salmon bothies have some prominence in certain parts of the coast.
There are small ones to be seen along the Moray Firth and south of Aberdeen, which differ in no way from simple stone sheds and bothies for farmworkers. The most impressive in the region is at Tugnet, at the very mouth of the Spey. It was built under the auspices of the Duke of Gordon, and was described in 1842 as "a spacious mansion for the gentlemen holding the lease, with extensive court and range of buildings ... for every purpose connected with the fishings"\(^1\) (Pl. 103). The necessary icehouses lie to one side of it. Further east along the coast, at Potgordon, is an icehouse used in the salmon fishing, which has thick stone walls and is roofed with turf and thatch (Pl. 104).

Dovecots are placed in relation to a castle or mansion house, and the North East possesses a number of very good examples. Two are illustrated (Pl. 105-107), which exemplify the principal Scottish types - the lean-to type common in the 17th and 18th centuries and the circular type, derived from those associated with the mediaeval castles, but constructed commonly in the 18th century.

Among other specialised buildings, the remaining brick and tile works are particularly impressive. Their function has been considered in Part II; as buildings they have a distinctive character, lent in part by the huge areas of their own tiles on the roofs. The main compartments are an extensive workshop, part of which is devoted to the moulding of the bricks, the clay being brought in at the upper level, and the remainder (the bigger area) to the drying shelves; and the brick kilns. The old kiln, the railway from the claypit and details of the tile roofs at Tochineal, near Cullen, are shown in Pl. 109-111. The tile works at Blackpots, near Whitehills, has a magnificent drying shed with stone gables, side walls made up with

\(^1\) NSA Bellie, Moray, 1842, 121.
timber stanchions and adjustable timber louvres along the rows of shelves on which the tiles were laid, and a huge sweep of sagging pantiled roof supported on stout timbers. Nearby there remains the small harbour in which the products were formerly loaded on to boats and sent to neighbouring parts of the coast (Pl. 112).

The distilleries are among the most important and the most memorable of all the buildings in the region. The foundation and distribution of them has been outlined in Part I. They are nearly always large, beautifully built and well maintained; and the dominant shapes of the drying kilns, set off by the bigger area of the lower warehouses and malt barns, make one of those combinations of elements that inevitably established a strong formal relationship of great architectural character. Not until the most recent years of the 20th century has anyone managed to design a really ugly distillery.

Though the process is complex and delicate, the planning elements are simple. The biggest area is taken by the warehouses and malt barns; the next element is the kilns, of which there are frequently two; then, and less marked from the outside, come the washtubs, fermenting bins and stills. The number of these varies; the Glenlivet distillery has four. The walls are usually stone from local quarries, sometimes harled, and the roofs are almost all slated. (Pl. 113 - 116.) In addition to the industrial buildings, nearly all distilleries form small settlements, with houses for managers, excise officers, brewers, and other workers. Because of the general prosperity of the industry and the pride that is normally taken in the well-being of the whole place, they form many attractive layouts. Some of the distillery houses erected about 1901 at the Glenlivet Distillery are shown in Pl. 118, and there is an excellent
example of the care lavished on planting, fences, bollards, and road trim, in the Glenlossie-Glenlivet Distillery at Thomhill, Moray, in Pl. 114 to 116.

The castles and mansions of the North East Lowlands are far too numerous for consideration here, and in many respects fall outside the scope of this study. A selection of them is given among the illustrations (Pl. 119 - 138); they have been selected either because they show a characteristic use of materials which is reflected in the minor buildings, or because they belong to the movement of rebuilding and reorganisation of estates in the 18th century.

It seems fairly evident that one of the significant influences on the development of minor architecture, particularly in the burghs, was the rapid spread of the style associated with the castles of the 16th and 17th centuries. Aberdeenshire especially has an excellent group of the bigger castles of this type, most of them linked with the name of the Bells as masons. Crathes, Midmar, Leith Hall, Castle Fraser and Craigievar, rich with crow-stepped gables, turrets and highly imaginative corbelling, are entirely individual and represent a curious late flowering of the Scottish Castle Style at a time when the architecture of England was being transformed by the Renaissance. Their influence spread firstly to the smaller castles, which are in effect not castles proper but semi-fortified small houses; and when these form part of the street architecture of small burghs they become a main feature in its urban style.
Such houses are the castle at Fordyce (1592) in Banffshire, which is the most important dwelling in this very small town (now a village), and - a country example - the little house-on-end in Moray, Coxton Tower. The former (Pl. 123) is an economically-planned house with corner turrets, random walling and good bold detailing of door and window jambs; it is used now as rented houses. The latter (Pl. 127) is still smaller, having only four rooms, one above the other, a winding stair and a hatch in the centre of the floor of each room. The whole building is constructed of stone, the rooms being vaulted; and the vaults alternate in their axes so that the loads are evenly distributed on all the outside walls. The heavy stone slates of the roof rest on the topmost vault, and from the upper floor access may be had to the corner turrets. The outside walls are beautifully rendered with lime harling. The date stone gives 1644 as its date, though it has been suggested that in its detail it belongs to a decade or two earlier. The tower was built by the Innes family and bears a close relationship with Innes House (Pl. 126) of about the same date. It is however very much simpler both in its plan and its detailing, and can be regarded as a simplified, small-scale version of the major style; it follows the main form in having its entrance on the first floor, held firmly by an iron yett.

Coxton Tower is worth emphasis because it is the intermediary between the big houses, the Carnousie Castles or Rothiemays, and the small houses in the settlements. Not only is its style reflected in some of the remaining 16th and 17th century houses in the burghs, but its use of materials and the perpetuation of the plan form, with main floor on the first floor and service room below, can be traced there too. The houses on the corner of Carmelite Street in Banff (Pl. 241, 244) belong clearly to this movement; at a slightly later date, 1694, Braco's Banking House
in Elgin (Pl. 231), which incorporates the Elgin street arcades, is also derived from it.

With the 18th century, the castle type of small house disappears and is replaced by the Renaissance house, influenced directly by the Georgian architecture of the southern and English counties. An enormous number of proprietors' mansions was erected between about 1750 and 1850; a proliferation to which the lists in the agricultural reports give ample evidence. This was part of the agricultural improvements in effect, the development of the mansion with its home farm accompanying the clearance of the farmtowns, the erection of the big farmhouses and the founding of the planned villages. The architectural influence was predominantly from the south; nevertheless, in the smaller houses again, some continuity of the local character of the architecture is easily apparent. Birkenbog, near Cullen in Banffshire (Pl. 134) is a beautiful, long, low white-harled house with outbuildings in front and to one side and a fine walled garden behind. It belongs, presumably, to the early years of the 18th century, and though new in its open, low form, has in its detailing and its materials more than a flavour of the previous century's castle style. The relationship again between this and the urban buildings in, say, Banff of the 18th century can be seen.

Of the more substantial mansions in the same county, Letterfourie House is a good Georgian example, with its local characteristic of cherry-cooking in its granite walls (Pl. 137, 138). Of the outsize houses, none is more important than Duff House at Banff, designed by William Adam and begun in 1730 for the first Earl of Fife. Discontinued for a time as a result of its enormous expense, it was never given its flanking wings that
appear in Adam's design; subsequent additions have recently been removed (Pl. 136).

The churches make a direct contribution to the rural and urban architecture. The interesting feature of parish churches is that here again in the late 18th and early 19th centuries the majority of those to be seen today were erected; and their character is closely related to that of the other rural buildings. Some examples of the mediaeval churches are illustrated (Pl. 139-146); the remaining ones are comparatively few. Outstanding among the small ones are the church at Monymusk and that of Birnie (Pl. 139-141), both of which are Norman foundations; the latter however was extensively rebuilt in 1734, leaving the Norman chancel arch but changing the exterior largely. It was remarked by the minister at the time of the New Statistical Account that this rebuilding had none of the skill and workmanship of the older walls.¹ This is a complaint heard elsewhere (e.g. with reference to the rebuilding of parts of King's College Chapel in the 17th century), and is indicative of a notable aspect of the history of the local church architecture - that from the time of the Reformation until the end of the 18th century was a period of decline in church building. Certain major churches remained as examples of a more ambitious ecclesiastical state. St Machar's Cathedral in Aberdeen tumbled in part, but retained the grandeur of its 15th century granite-built nave (Pl. 144); Elgin only fell as a result of the profiteering of the town council, who sold the lead from the roof and left it a prey to the weather; the small parish church at Cullen (Pl. 145), erected mainly in 1543, was the particular care of the Seafield family and survived the total removal of the burgh in which it stood. But in the main the parish churches,

¹ NSA Birnie, Moray, 85.
ruined financially by the failure of the provisions made at the time of the sequestrations of church lands, were allowed to decay for lack of funds and interest from the 16th century onwards. By the 18th century it is clear that the majority were in a ruinous or at least unsatisfactory state; and the remains of numerous small churches throughout the counties dating often from the early 16th century are a testimony to the final abandonment of these humble relics of the pre-Reformation church.

A comprehensive study of the churches of post-Reformation Scotland has been recently published, which lists all the churches built between 1560 and 1843 under counties; and this work gives an authoritative account of the development of the churches. It is not proposed to duplicate this here. By scanning these lists, and by listing for confirmation the dates of the erection or extensive rebuilding of the parish churches given in the pages of the New Statistical Account, it becomes very apparent that a concerted movement to make up for the years of neglect took place at the end of the 18th century. In Aberdeenshire, between 1750 and 1770, at least five churches were erected; between 1770 and 1800 at least twenty-five; between 1800 and 1820 at least nineteen; and between 1820 and 1850 at least nine. In other words, out of a total of 85 parishes, at least fifty-eight (nearly 70%) received new churches between 1750 and 1850.

For Banffshire the corresponding figures are: from 1770 to 1800 at least six; from 1800 to 1820 at least eight; from 1820 to 1850 at least five. Here, out of a total of twenty-four parishes, nineteen had new churches (nearly 80%) between 1750 and 1850. In Moray and Nairn at least three were built between 1750 and 1770; and at least four between

1820 and 1850 (none between 1800 and 1820). This gives a total of twelve out of twenty-five parishes in the period stated (just under 50%); but in these counties a number were also built in the twenty years preceding 1750.

In short, the activity of building represents virtually the transformation of the whole ecclesiastical scene. A number of these churches are illustrated (Pl. 147 to 159). In type they all have great similarities. They display a strong conservatism in form in that they are in the main long narrow buildings with a strong directional plan, derived essentially from the pre-Reformation east-west orientated churches. This is emphasised by the small belfry, which is usually at one end. Yet inside their plan arrangement is not related to this form, the pulpit usually being in the middle of one of the long walls and the congregation being grouped round it. In the more sophisticated examples this is often expressed by the fenestration, when two large windows in the long wall flank the pulpit (e.g. Alvah Kirk, Pl. 148). Dyke church, in Moray (1781) retains its original three-decker pulpit. The majority of the churches have galleries.

Unusual therefore in its form is the nearly square church at Ordiquhill in Banffshire (Fig. 64 and Pl. 153 & 154). This expresses the internal arrangement clearly in its exterior, even emphasising the position of the pulpit by the placing of the belfry. It is one of the more remarkable examples of true Presbyterian church planning.

In materials and construction, these parish churches are not essentially different from the farmhouses. Several were clay built, with lime pointing on the outside faces of the stone. Local stone was always used, usually covered with a lime harling. In the earlier ones,
heather thatch was sometimes used for roofing. The churches at Kincardine O'Neil, Aboyne and Glentanar were thatched with it in the early 18th century; so were the churches at Aberlour in 1812 and at Ardesier in 1762. The heather roof of the Kincardine O'Neil church was replaced in 1733 after a young man shooting pigeons from it set fire to the heather. The Glentanar old kirk was known because of its heather as the Black Chapel of the Moor. But the majority had slate roofs; in Aberdeenshire some of the best specimens of roofing with the Fouldland slates are to be seen on the roofs of the parish churches of this period.

Most of these churches were the work of unrecorded masons and therefore represent a genuine tradition in local style. They are quite un-selfconscious, simple, austere and practical. In the early 19th century, however, it became more fashionable to employ architects for this work. Thomas Telford, who was responsible for the design of some thirty-five churches in the Highland areas under the Parliamentary Commission set up in 1824, saw to the erection of one church in this region—that at Tomintoul in Banffshire. Among the other parish churches, John Baxter was the architect for the Georgian parish church of Bellie in Fochabers (1798), Archibald Simpson for the churches at Aboyne (1842), Drumoak (1836) and Kintore (1819), John Smith of Aberdeen for Newhills (1830) and Gillespie Graham for the church at Rafford in Moray (1826), Pl. 159. It is distinguished today by vivid white pointing between the stones, and is a good example of straightforward and practical minor church-building. By the end of the 19th century the output of churches was much diminished.

2 Thompson, A Speyside Parish, 1902, 44.
3 NSA Kincardine O'Neil, 837.
4 NSA Aboyne and Glentanar, 1048.
and the examples much more diverse and influenced by stylistic fads. It was the hundred years up to 1850 that effectively saw the rise and fall of a coherent local church architecture in the Church of Scotland. The other churches were also busy, but on a smaller scale. The Episcopal Church (see Part I) spread considerably in the 19th century and employed frequently well-known architects to design its churches. Thus Sir Rowand Anderson designed the church at Stonehaven, G.E.Street the church at New Pitsligo, John Kimross that at Fraserburgh; and Alexander Ross, the architect of the Episcopal Cathedral at Inverness, was responsible for churches in Nairn, Old Meldrum, Buckie, Aberlour, Elgin, Keith, Dufftown and Insch.

The Roman Catholic churches of the region have slightly more of a local character, partly because of the strong native tradition of Catholicism in the North East (see Part I) and also because of the need before the days of the Catholic Emancipation to make the churches as unobtrusive as possible. The little church at Tynet in Moray of 1755 was designed to resemble a simple farm building; recently restored, it still retains that character (Pl. 161). The church of St Gregory at Preshome in Banffshire (1788) was the "cathedral" of the bishop of the Eastern District and, though modified later by Peter Paul Pugin, is an individual provincial version of baroque (Pl. 160). The Rt. Rev. James Kyle as bishop for the district was responsible for several churches in various styles but all with a distinct native character; they include St Mary's, Dufftown (1825), St Margaret's, Huntly (1834) and the twin-spired St Peter's, Buckie (1857). The original part of St Thomas', Keith, which dominates the square, was designed by another priest, Fr. Walter Lovi.
Other denominations have played less part in contributing to the architecture of the region; but mention should be made of a small group of religious buildings which will be noted again later - the meeting houses of the "Brethren" in nearly all the fisher villages along the coast. These belong entirely to their environment, being rooms on an upper floor entered by an external staircase, and deliberately made to look undistinguishable from the other buildings. What does distinguish them usually is the notice outside the door; in the stricter observances even this may be dispensed with.

The manses belong in the main to the same movement that saw the erection of the churches themselves. Using the facts given in the New Statistical Account again, it seems that at least twelve manses were rebuilt between 1750 and 1770; at least twenty-five between 1770 and 1800; at least sixteen between 1800 and 1820; and at least twenty-four between 1820 and 1850, in the counties of Aberdeen, Banff, Moray and Nairn. Thus some seventy-seven manses in one hundred and thirty-four parishes (nearly 58%) were the product of these years, and they contribute in no small way to the rural architecture. Situated in proximity to the churches, but not always as close as might be expected, they are usually white harled, with freestone facings, a slate roof and a substantial bulk of accommodation inside. Typical examples are illustrated in Pl. 164 to 169.

Bridges are of such importance that they cannot be excluded from this study. It is not however easy to classify them; their form and treatment owe too much to local vagaries. They are therefore illustrated fairly liberally (Pl. 172 to 204). They are interesting in connection with this study because of their use of building materials
and their consequent contribution to the architectural history of the North East; but even more, they were of the utmost importance in the development of centres of settlement and the stimulus given to building both individual dwellings and whole towns and villages.

Their general significance in terms of the development of the road and rail system has been outlined in Part I. There is no doubt that the full use of the natural resources of the region was severely hampered by the lack of bridges at the beginning of the 18th century. There were many ferry boats, established crossing points that often leave their names as testimony to that function, like Boat o' Brig on the Spey, whose name indicates its changing status - first a bridge before the Reformation, then a boat, then finally a bridge again. Its story is typical and not unlike that of the churches - the decline of bridge building during the 16th and 17th centuries. By the 18th century the pattern was clear: a small number of good bridges, such as the Bridge of Dee at Aberdeen (1527) or the Bridge of Balgowrie (14th century), but mainly a series of ferry boats spaced along the main rivers. During that century a large number of bridges were built on parish roads, so that communications steadily opened up within the counties; but there remained the problem of bridging the major natural barriers in the region - rivers like the Deveron, Spey, Findhorn and Nairn; and it was the early 19th century that saw, in conjunction with the opening of turnpikes, the construction of some of the major bridges in the North East.

Against this general background it is possible to group the bridges without attempting to catalogue them all. The early 18th century accounts contained in Macfarlane's Geographical Collections record as a
matter of some importance the incidence of bridges within the parishes. Such a bridge is that at Poldullie (Fig. 181, 182) in Strathdon, which (described by various names such as Pot of Pool d'Oylie, and Beiduly) was built in 1715. There are references to bridges at Auchmeddan, Cruden, Old Deer, Monymusk and many other places, of which many were of timber, some with "stone land steats". There were a number of wholly stone bridges, one of the more important being that at Strathbogie (Huntly) near the castle, which afforded an essential crossing place on the Deveron, defended by the castle itself. One of the older bridges in Banffshire (c. 1609) remains at Keith (Pl. 178, 179), being now restricted to pedestrians. In Elgin the oldest remaining bridge is the Bow Brig, which was built by the magistrates of the city in 1630.

The first major attempt to build bridges at key points was made under General Wade and General Caulfield after the '45. The three-arched stone bridge over the Spey below Grantown was built about 1750 as part of the road between Braemar and Fort George; the small, typical Wade bridge in Glengairn formed another part of the route (Pl. 192). Other 18th century bridges included the superb Banff Bridge across the Deveron (Pl. 187); until 1763 there was only a ferry boat at this important junction. The first bridge was swept away by floods in 1768, and the present bridge was the work of Smeaton. It was opened in 1780.

Some of the more beautiful of the bridges of this time are those erected on the estates of major landowners. Thus the Big Bridge at Cullen House across the Cullen Burn was completed in 1744 from a design by William Adam (a commemoratory tablet on the side records its erection).

2 Ibid., 102 (Bridge at Burn of Desk, Deeside).
3 Ibid., II, 286.
The Bridge of Alvah, near Banff, in the grounds of Duff House, was erected in 1772 by the Earl of Fife, marking where the gorge brings the river into the policies of the house. The gorge is spanned at a height of over 55 ft. Possibly the most unusual is Craigmin Bridge (Pl. 173, 174) in the grounds of Letterfourie House near Buckie. It belongs to the early or mid 18th century, and consists of a double arch superimposed on a single arch that spans a burn at a fairly high level. It is possible to walk through the bridge at the first level, and there are small rooms both in the abutments and in the centre of the upper storey; so that it is naturally said that Bonnie Prince Charlie hid there for a night in 1745.

The major bridges of the early 19th century are associated with the work of Telford and with the subsequent work that arose from the devastating floods of 1829, the year of the "Muckle Spate", when tremendous damage was done to bridges on all the main rivers. Before that time Telford had been responsible for bridges at Ballater, Alford (1810) (Pl. 194), Potarch on Deeside (1813) (Pl. 188), Fochabers (1803) (Pl. 191) and Craigellachie (1815) (Pl. 199-201). Of these the Fochabers bridge was a recommendation made specifically by him as one of the major requirements in the national road system, the Spey having always been an obstacle of considerable danger. The bridge was erected by the Duke of Gordon, in accordance with Telford's proposal that it should have "more decorations than what are absolutely necessary for common road bridges ... on account of its being so nearly connected with the seat of the before mentioned nobleman".¹ Two of its arches were however destroyed in 1829;

¹ Survey and Report of Coasts etc., Appendix B, Life of Telford, 290.
wooden arches which replaced them were in turn replaced by cast iron spans in 1853. The Iron Bridge at Craigellachie is both one of Telford's masterpieces and one of the finest bridges in the North East. It has a single arch, spanning 150 ft. between the crags, and terminating in stone turrets 50 ft. high, a romantic concession that acts as a splendid foil to the silver-painted iron members of the bridge itself.

Following Telford's work, there were a number of suspension bridges, such as that at Aboyne on the Dee (1831) and at Forres over the Findhorn (1832 by Commander Sem Brown, R.N.). The Findhorn Bridge replaced an earlier suspension bridge, which was lost in the 1829 floods, and it was itself replaced in 1938 by the present one (Pl. 204) by Blyth & Blyth. Another suspension bridge by Commander Brown is that at Boat o' Brig on the Spey (c. 1835) (Pl. 197), spanning 235 ft. from granite towers. It has been closed to most traffic for several years and is due for replacement. At the beginning of this century a number of very elegant footbridges were erected over the Dee near Braemar, at Cambus o' May, and elsewhere. One of these is illustrated in Pl. 203.

It is not possible within the scope of this study to include more than a selection of the many smaller bridges throughout the counties. A selection of these, showing types varying from timber footbridges to the commonest single span granite bridges and those of two or more spans, is given in the illustrations.
Chapter 6

The Old Towns and Villages

When William Cobbett toured Scotland in 1832 he was unfavourably impressed with a notable peculiarity of the rural landscape. The Lothians had some of the finest land he had ever seen in his life. So, "Oh, how you will wish to be here! 'Lord,' you will say to yourselves, 'What pretty villages there must be there; what nice churches and churchyards; oh! and what preciously nice ale-houses! Come, Jack, let us set off for Scotland! What nice gardens we shall to our cottages there! What beautiful flowers our wives will have climbing up about the windows, and on both sides of the path leading from the wicket up to the door! And what prancing and barking pigs we shall have, running out upon the common; and what a flock of geese, grazing upon the green!"

"Stop, stop! I have not come to listen to you, but to make you listen to me; let me tell you then, that there is neither village, nor church, nor ale-house, nor garden, nor cottage, nor flowers, nor pig, nor geese, nor common, nor green ..." Instead he points out that in an area of ten miles diameter surrounding Craigmillar Castle, there is only one true settlement, Musselburgh; if this were Suffolk, there would be thirty-two churches and thirty-two villages.¹

This was after the great agrarian improvements had been under way for nearly a century. Cobbett was not the man to give a calm and measured statement about anything that met his ever-smouldering anger;

but even allowing for some exaggeration on his part, the contrast with England was entirely valid. The paucity of villages was and still is one of the special features of Scottish land-use, and Cobbett might have written similarly of many another area, including the North East Lowlands. As soon as one attempts to isolate the distinctive characteristics of a group of Scottish villages, one is faced not only with this contrast but also with the difficulty of defining what in any case a village is in Scottish terms.

The Scott Report, for example, defined an English village as a settlement, usually a natural growth originating from the manorial system, with a population of over 100 and less than 1500 persons. A similar definition for Scotland would cause hopeless confusion between burghs and various kinds of settlement down to widely scattered crofting townships. While there are settlements now classified (e.g. in the Census Reports) as villages, which have over 1000 inhabitants, it is quite common to find burghs with a population of considerably less; and it is possible also to find small settlements with less than 100 inhabitants which are the nearest approach to what an Englishman would consider a village. In short, there is not in Scotland what might be called a village system acting as a basis for the structure of the rural population. "The Scott Report," says an official source, "aims at the preservation of the old English village system as the basis for an improved community life in rural areas. In most parts of the Scottish Lowlands a system of this kind has still to be built up almost from the beginning".1

The North East did see a significant growth in villages during the

18th and 19th centuries, which will be dealt with in the next chapter. Up to that time there was no such village pattern, but rather one of few burghs and a proliferation of diverse settlements such as farmtowns which have already been discussed. These were agricultural settlements. The key to the other settlements was the status of the burghs, not the existence of any kind of coherent village system. It was the development of Scots Burghal Law which effectively influenced the shape of the countryside before the 18th century. Until the 16th century almost all the trade of the country was the prerogative of the royal burghs, which had the privilege of holding markets. Dr I.F. Grant has pointed out that "the exclusive rights of the royal burghs ... are largely responsible for the lack of villages in Scotland until the late part of the 18th century, and for the fact that her rural industries were far inferior in quality and value to the great cloth-weaving industry of England, until almost that period". In having such a monopoly of trading the Scottish burghs had a very different effect from their English neighbours. There a market could be set up anywhere as long as it was at least 6½ miles from an existing market.

The burghs with which this chapter is concerned were of several kinds. Their origin is often disputed. "Burg" is a castle, and from it may derive the word "burgh", but it does not seem to be clear whether the castle or the burgh itself came first. At least the exclusive trading rights date back often to the 12th century; and it seems that David I set about the creation of burghs as a political measure, like that of the sheriffdoms and counties, as part of the Anglo-Norman

1 Grant, I.F., Social and Economic Development of Scotland before 1603, 133.
re-organisation at that period. Thus Edward I set up bastide towns in Wales, based on the English settlements in France, giving them market monopolies which would make them rallying points for the English traders. In much the same way Elgin and Forres were "planted" in Moray after the rebellion of 1160.

The most important distinction between the burghs was between the royal burghs and the burghs of barony and regality. The royal burghs were the towns on Crown lands; they had a royal charter and the right, as corporate vassals of the king, to be represented in Parliament. The burghs of barony and regality did not have this privilege; they could be represented only in the court of their immediate overlord. A barony was the usual name for an estate, so that a burgh of barony was the town with its local privileges within the estate of the baron. A regality was similar, but had greater privileges, being an estate within which the owner enjoyed practically sovereign powers; the burghs of regality were granted exclusive rights of criminal jurisdiction within specified regions.

But the trading privileges were the most significant privilege. The royal burghs had a trading monopoly throughout a wide district, and for three centuries had no competition at all. This trading district might include one or several baronies, or it might, as in the case of Aberdeen, include a whole sheriffdom. In other cases, such as Inverurie and Kintore in Aberdeenshire, special trading regions were established within the trading region of the major burgh. The burghs of barony could only conduct trade within their municipal boundaries. Later, during the 17th century, it became common to authorise the holding of rural markets; large numbers of the well known rural fairs that form a great annual event in this region were founded at this time. The rural
markets had an advantage over the burghs in not having to pay taxes, and as trade expanded they proved a serious competitor to the royal burghs. The stunted size of many of the royal burghs, like Kintore, can be related to their failure to overcome this competition.

Nevertheless, until that time, the royal burghs had the general effect of hindering the development of urban life and strangling trade in the country districts. Furthermore, they virtually controlled all foreign trade. This trade was mainly with England, France, the Baltic and the Low Countries; it consisted essentially of the exchange of rural produce, such as wool, skins etc., for manufactured goods, and it was carried on almost entirely by the ports on the east coast. The coastal burghs like Aberdeen and Banff flourished on this trade. As the 16th and 17th centuries saw its expansion, the smaller burghs also profited from its fruits; and so it is that in the older coastal burghs are to be found the best of the older houses, influenced perhaps by the countries with which trade was carried on, substantial stone and pantiled dwellings that seem to have an affinity with the buildings of places like Veere in Walcheren, the headquarters of the Scottish staple.

If this was briefly the status of the burghs (which might also be called "towns"), it is possible to see the status of the smaller settlements in relation to them. For within a barony (or estate) there might be a number of smaller settlements (or "towns"); and one of these "towns" might possess the charter which made it a burgh of barony. In other words, the burghs of barony had no particular size or distinction of layout as such (though they might acquire it as they developed); they simply had a trading privilege of considerable administrative significance.

1 Cf. Gordon of Straloch, Anent the Government of Scotland as it was before the late troubles; Macfarlane's Geog. Coll., II, 391-401.
What are now villages or hamlets were sometimes such burghs and sometimes just ordinary "towns".

The general use of the word "town" must therefore be understood against this background. Old accounts abound with the names of towns which are now nothing more than a farm or even a cottage. And the name is still given to settlements which have come to be called villages. This is a loose description, but it has been in use for several centuries. In its early uses it refers mainly to the farmtowns; but it is used very freely and it would be a mistake to assume that a collection of dwellings thus described had any special function which the name denoted. Gordon of Straloch's Account of Moray (c. 1654) refers to the large number of villages between Forres and Elgin and along Strathdearn; his general account also refers to the forty village settlements called daachs in Strathbogie. This of course is a translation of the original Latin article. By these he was referring to the ubiquitous farmtowns. On the other hand, James Donaldson in his report on Nairn in 1794 describes as villages such places as Dyke and Auldearn, which were and are church centres. The same man, reporting on Banffshire in the same year, refers to the "ancient custom here as everywhere else to have farm houses placed together to form small villages" with farms possessed in the runrig; this had now changed, and "where one tenant has the farm, villages are unnecessary".

The fact is that the real classification of the small settlements other than the burghs comes strictly from their economic or social function.

1 E.g. references to "towns" of Whitehill and Reidbourg in Mr Fergusson's Description of Strichen, 1723 - in Macfarlane's Geog. Coll., I., 59.
3 Ibid., II, 275.
4 Donaldson, J., General View ... of Nairn, 1794, 10.
5 Donaldson, J., General View ... of Banff, 1794, 21.
The names, which frequently remain, indicate this function. There were Castletowns, like Braemar, a cluster of houses near a castle whose inhabitants were employed in agriculture and also in defence. Some developed into burghs; but many remained very small and subsequently became hamlets or even, like Castletown of Blairfindy (Glenlivet), were turned into single farms, retaining the name and a picturesque ruin in the back yard. Then there were the Kirktowns (usually called Kirktons), which developed as the social centre of an estate or small district without having any market function. They were in fact the nucleation around the parish church, often with parish school, the manse and a big house. These often developed into burghs of barony.

A typical example of a small Kirktown is Kirkton of Kinellar, situated on what is now a minor road between Kintore and Fintray in Aberdeenshire. It consists today of a church, built in 1801, the old manse (1778), a cottage, and another house or two. This was in mediaeval times a visáragc belonging to the parsonage of Kinkell, and the finding of a number of stones with Celtic designs indicates that this was a site in use from very early times. The patronage, which was in the hands of the University of St Andrews, was bought by the Earl of Kintore in 1761. The "town" has therefore a typical history. By the 19th century it seems to have been agreed that the church was most inconveniently situated for the people of the parish; and its significance has now been quite submerged as a centre of settlement, leaving it with a title of little value. There are innumerable other examples of this kind of town, like Kirkton of Alvah in Banffshire, or Kirkton of Skene and Kirkton of Slains in Aberdeenshire. Their origin, as centres of agricultural parishes which did not possess villages as such until the

1 Cf. NSA Kinellar, Aberdeenshire (1840), 118; Smith, A., New History of Aberdeenshire (1875), II, 344.
18th century, explains one of the peculiarities of later villages - that unlike the typical English village, the church is frequently some distance away from the village and does not form a significant architectural feature in its layout.

In addition to these, there were some "Hattons", such as Hatton of Fintray in Aberdeenshire. This again is nothing more than a cluster of houses like a castletown or a kirktown, but the name is usually a later one, and indicates that they belonged to the "hall" - a settlement of workers on an estate, placed in proximity to the mansion house. They were strictly "hall towns". The cottartowns or "cottowns" have already been mentioned in a previous chapter, as groups of cottages inhabited by cottars, employed either on the estate or as independent tradesmen. Then there were the milltowns, scattered profusely throughout all the counties. These (known as "milntouns" or often now as "miltons") had an obvious function; and they could be as small as just a mill and a house. Others, like Milton of Rothiemay, grew into more substantial villages.

The whole organisation of these small settlements is well illustrated by the case of Monymusk. There, before the revolution worked by Sir Archibald Grant, there was the Kirkton - with about 100 inhabitants, the old Norman church, the school, and the meal mill driven by the waters of the Monymusk Burn, the House of Monymusk about a quarter of a mile away, and the Mains or Home Farm, worked either by Grant himself or with an overseer in charge. Then, throughout the estate, were the "touns" or townships, each with about eight houses, though there were more in a few cases such as Upper Coullie and Pitmune, where the "toun" became a small village with a smith and tailor as well. The "toun" was usually leased by one or more tenants, who sub-let to sub-tenants.  

1 Hamilton, H., Life and Labour on an Aberdeenshire Estate, xxiv.
The tenants were "thirled" to one of the laird's meal mills (i.e. had to have all their corn ground there and pay multures), and the whole organisation was administered by a factor or "ground officer". The owner or his Baron Bailie also presided over the Baron Court, which saw to the solution of economic matters. For in this case the kirkton had become the burgh of the barony, and the Baron Bailie was a man of importance. It will be seen that in the planned villages which were designed as burghs of barony he was one of the people who required special provision.

Lastly, there were the Seatowns, the fishing settlements along the coast which were clearly distinguished from the rest of the parish organisation. These will be considered in another chapter.

This, then, is the basis for the distribution and layout of the older towns and villages, of which a number can be seen illustrated in Figs. 65 to 68 and Pl. 205 to 256. As will be seen from these views, comparatively few of the buildings in them date from before the 18th century; nearly all saw a process of rebuilding and expansion at that time, which removed the older buildings without altering the pattern of street layout except superficially. Some, like Banff and Turriff and Huntly, had major extensions of a more formal nature, amounting almost to a replanning of the entire town, and are therefore comparable now to the planned villages and towns of the next chapter. For by the end of the 18th century the old burghs were still the main marketing centres. The market towns in Aberdeenshire, for example, were Aberdeen, Peterhead, Fraserburgh, Kintore, Inverurie, Old Meldrum, Turriff and Huntly; and those in Banffshire were Banff, Cullen, Portsoy, Keith and Fochabers (now

in Moray). Two of these latter were planned villages, viz. Cullen and Fochabers; but both were examples of old burghs (the former a royal burgh and the latter a burgh of barony) which were moved and completely rebuilt without losing their established privileges.

Aberdeen was founded in two parts, both of which were mediaeval burghs. Old Aberdeen dates from at least the 12th century, and is in plan typical of the small mediaeval burghs (Fig. 65). Before New Machar Drive out it in two it consisted, as is shown in the plan, of a main street which forks where it widens out to the Town House, one road leading to St Machar's Cathedral and the other - Don Street - to the Brig of Balgowrie. It was a settlement which grew up around the cathedral, and remained, even after the founding of its university, small enough to be described by Gordon of Rothiemay in 1647 as really a village or hamlet or burgh of barony. Characteristic of the simplest kind of burgh, it has lanes leading back from the main street, the development of the arable strips at right angles to the street; and these lanes contain some of the best examples of small houses in the region. The houses vary from one to three storeys and are mainly of granite with red pantiled roofs, the product of the Seaton Brick and Tile Works (Pl. 206). St Machar's Cathedral is granite walled, King's College is of sandstone, and some of the older houses also followed the trend which found sandstone the best

1 Donaldson, J., General View ... of Banff, (1794), 25.
2 The Town House (Pl. 205) was built in 1702 and renovated at the end of the 18th century. The Mercat Cross, symbol of the burgh, stood in front of it, with steps and a figure of the Virgin; it was defaced at the Reformation and taken away when the Town House was rebuilt.
3 Gordon of Rothiemay, Abredoniae Utriusque Descriptio, in Macfarlane's Geog. Coll., II, 504. It was in fact a burgh of regality, which developed from the original Kirktown of Old Machar. The Chanonry, or cathedral precinct, contained the bishop's palace, deanery, prebends' lodgings, etc.
material until the development of the granite industry in the 18th century made it equally practicable. The Chanonry contains excellent 18th and 19th century houses. Brick was used in that period to an unexpected extent; the house at Cluny's Port (Pl. 207) shows how well it harmonises with granite. This house also has the characteristic North East trick of "cherry-cooking" the spaces between the stones with small pebbles set in the pointing.

Old Aberdeen remained small and for a long time separate from its expanding neighbour, the royal burgh. New Aberdeen has largely lost its original form with its vast increase in size and the construction of Union Street on a series of bridges (1800-03) to form its principal thoroughfare. Descriptions remain, however, of some of its houses before the 18th century; and two outstanding houses - Provost Skene's and Provost Ross's - have been restored as especially interesting examples of the houses in the 17th century. Parson Gordon of Rothiemay's maps indicate the layout of the streets circling the castle hill. Of the houses, he wrote "the buildings of the toune are of stone and lyme, rigged above, covered with slaits, mostlie of three or four stories hight, some of them higher. The streets are all neatlie paved with flint stone, or a gray kind of hard stone not unlike to flint. The dwelling houses are cleanlie and bewtiful and neat, both within and without, and the syde that looks to the street, mostlie adorned with galleries of timber, which they call forestaires. Many houses have ther gardings and orcheyards adjoyning; every garding has its posterne, and thes are planted with all sorts of trees which the climat willsuffer to grow; so that the quholl toune, to such as draw neer it uponsome syds of it, looks as if it stood in a garding

1 So called, not in contrast to the old kirktown, but to its own predecessor, almost wholly destroyed in 1336 by Edward III.
or little wood."¹ This was in the middle of the 17th century. Even at the beginning of the 18th, Grant of Monymusk was able to record that there were many wooden, mud and thatched houses within its gates.² But after a great fire in 1741 which destroyed the west side of the Broadgate, the erection of houses having their outside walls of wood was finally prohibited.³ The old galleries and timber fronts disappeared, and the new houses made almost exclusive use of the granite of Rubislaw.

One of the best examples in Scotland of the layout of the mediaeval burgh is Forres in Moray; and at the expense of moving rapidly from one end of the region to another it is useful to consider it here. Forres is one of the oldest of the royal burghs, having that status certainly in the 12th century. It was then a centre of as much or even more importance than Elgin, being the seat of the sheriff; and it commanded a highly significant position just east of the river Findhorn, making it at once an administrative centre in this fine lowland district and a strategic point for defence and attack. Almost all the features of the centre of Forres are of interest. Firstly, its site was well and typically chosen, a well-defined area on a level spur of ground that is the first part to rise above any flood danger from the Findhorn valley. This spur projects westwards from the Cluny Hills and is enclosed on the south, west and north by the Altyre and Mosset Burn. On this excellent site, the castle occupied the western extremity, nearest the river; and the burgh, in much the same way as Edinburgh, developed to the east, sheltered beneath the protection of the castle. The High Street characteristically is the built up part of the King's Highway from Elgin.

² Grant, Sir A., Monymusk Papers, Misc. of Spalding Club, II, 100.
³ Watt, Aberdeen and Banff, 205.
Then Forres illustrates the simple burgh plan form. This was influenced by the arable strips within the town's land, commencing on the King's Highway, which, as King's property, was protected by legislation from encroachment. (It may be noted that encroachment was nevertheless, as in Edinburgh, a very common event. It was always controversial, and statutes exist that continually attempted to prevent it.) The delineation of the burgh limits was an important matter, and these were normally marked by the town dykes, either wooden pallsades or stone walls. The essential elements in this were the burgh limits, the maintenance of the ports and the fixing of the high street. Then the arable rigs, which developed as closes and wynds behind the main street, established the frontages along that street and the alignment of any further streets. The main public elements within the town were, apart from the castle, the Cross, the Kirk and the Tolbooth - in effect the symbols of economic, spiritual and political order.

The plan of Forres (Fig. 66) illustrates these essentials. The High Street widens in the middle of its course to form the earliest kind of market square; and there is found the site of the Cross and the Tolbooth. The present Tolbooth, dating from 1839, occupies its traditional position. The strip-holdings or "rigs" run back at right angles (roughly) to the High Street, and the narrow wynds provide access through them (they are still a feature of the town). Then, at the limits of the original town, the plan is completed by two back streets (North Road and South Street - originally North Back Gait and South Back Gait), approximately parallel to the central spine. The castle has disappeared, but its site is marked; and though the old Parish Kirk of St Laurence was removed in 1775, its position is maintained by the present building (1906).
Outside the town limits were the common lands of the town. Remnants of these ("The Greens") can be seen in the plan of Forres. They were divided, as in the farmtowns, into infield and outfield; and beyond them similarly were the meadow lands or rough pasture used for communal grazing by the burghers. It is largely the taking over and building up of these lands that characterises the later developments of the mediaeval burghs.¹

The generous subdivision of these lands at the time of the 18th and 19th century extensions of Forres gave it much of that garden city atmosphere that it has now, an urban landscape thick with foliage and screened with stone walls. But the central part, the mediaeval burgh, retains enough of its 16th to 18th century buildings to keep the impression of an old burgh. The older houses have steep-pitched roofs, crow steps and heavy slates or stone slabs, and the gables are often set facing the street.² The 18th century buildings retained those features of design, and there are many excellent details such as the door in North Street (Pl. 240). The houses were usually harled; one of the more spacious houses, set back in a court but now derelict, is shown in Pl. 238.

A constructional feature of some interest is the use of brick-nog construction even for exterior walls during the 18th century (Pl. 239).

Forres has steadily declined in importance and given way to Elgin. The foundation of the bishopric in the latter made it a centre of greater influence, although the sheriffs remained in Forres until the end of the 18th century. The 19th century streets to the west radiate out from the bridge (1823, rebuilt in 1908) in a form different from the

¹ Cf. Houston, J.M., The Scottish Burgh, 123, showing the effect of feuing these lands on the later street layout in Edinburgh and Glasgow.

² On Forres see Cant, R.G., Old Moray, 6-9.
previous developments. An aspect of some significance is that Forres' fortunes have been much tied up with those of its seaport, Findhorn; and the decline of the latter (the branch railway line to it in 1860 was a failure) contributed to the decline of the former. In contrast, both Elgin and its port, Lossiemouth, gained in importance and prosperity.

Elgin is a royal burgh of the same type but much finer architecturally. It was also a 12th century foundation, but acquired greater importance with the founding of the Cathedral in 1224, when the Bishop moved the headquarters of his diocese from Spynie. Elgin's site is even better chosen than that of Forres, on a low ridge contained by the winding river Lossie. This ridge is really a peninsula of raised beach with the low land to the immediate north, east and south; and the winding of the river made it an ideal position for the establishment of the mills. At the west end of the ridge is the Lady Hill with the castle; to the east on the level haugh above the 50 ft. contour, the Cathedral was placed. Possibly Elgin was originally its own port; the Lossie was certainly navigable. The Loch of Spynie, drained in the 19th century, was connected with the sea, and the Bishop's sailing boats harboured there.

The plan resembles that of Forres. The castle is at the west, the High Street forms the spine, widening in the middle to provide sites for the Tolbooth (now gone), the Parish Kirk of St Giles (rebuilt in 1826) and the Cross (copied on the same site in 1883); the North and South "Back Gaits" are roughly parallel to and behind the High Street, and are linked to the latter by a series of wynds. The burgh

1 Cf. Winn Green, F.H., Urban Centres of the Moray Firth Lowlands, 180-181.
limits were marked by a continuous row of garden dykes, some of which remain along the old North Gait (North Lane and Blackfriars Road).

There were four ports, the West Port at the west end of the High Street, the East Port at the east end, the North Port in Lossie Wynd and the South Port at the junction of the School Wynd with the South Back Gait - these two wynds being the main ways into the town from north and south.

Within the streets and wynds are the tenements (or strips of land). The houses are usually right on the main frontage, though some are set back leaving a "fore-land" in the front. One of the special features of Elgin was the habit of building houses on the street front with an open arcade on the street level (Pl. 230), which has in every case now been filled in with shops. The "back-land" reached by a pend was originally laid out as a croft, but here again the usual development was to build lines of houses along the holding at right angles to the High Street in the form of a close. Some of these closes can be seen in Pl. 235 - 237. Outside the town dykes to north and south were the crofting land, the "Burgh Briggs" and the "Town's Crofts". Where the burgh ended originally at the east, the road forks, the main road continuing east and the other leading to the Cathedral. Here, the limits of the Cathedral sanctuary, the Little Cross (distinguished from the Muckle Cross mentioned above, Pl. 232) was erected in 1402; it was rebuilt in 1733.

It is unnecessary to discuss here the major buildings in Elgin, the Cathedral and the churches and monasteries. There remain sufficient of the ordinary burgh houses to give a picture of the old burgh. As in Aberdeen, stone houses were not common until about the 16th century and especially the 17th century, the best period in the
older burghs. In Elgin, the greatest advantage was got from the proximity of the freestone quarries - at Elgin itself, at Pluscarden, and at Covesea (see Part II). The yellow sandstone, which goes light greyish yellow and becomes hard with exposure, gave a superb opportunity to the masons.

At the beginning of the 18th century, Elgin must have had a High Street almost wholly lined with arcades or "piazzas"; they made an impression on visitors and were often recorded. The houses were mainly three-storeys high, the top storey reaching into the roof with ornamented dormers. Sometimes there was another row of dormers above this. The roofs were steeply pitched and covered with stone slabs, of which several examples remain. The gables were normally crow-stepped, the date normally being on the skewputt, the lowest stone. An interesting example of crow-steps is to be seen in the ruined so-called "Bishop's Palace" (actually the Precentor's Manse), where the crow-steps are gabletted, (i.e. each crow-step has a little pitched roof on it), Pl. 143. This is a feature sometimes seen on ecclesiastical buildings along the Firth and the East coast, and suggests to me a direct influence from the Low Countries. Such crow-steps are a common feature in Holland; there are many examples in Weicheren, one of the chief areas of commercial contact with the east coast of Scotland.

Some good examples of the street architecture of this period are illustrated. Braco's Banking House, 7 High Street (Pl. 231), is dated 1694. It has the street arcade, three storeys, pedimented dormers, crow-steps and a stone-slab roof. It was the banking house of William Duff of Dipple and Braco, who became the first Earl of Fife. Behind it in the close is a very good group of white-washed houses also with
stone-slab roofs and crow-stepped gables (Pl. 235). Not far along the High Street are other good examples (Pl. 233, 234), part of which was the Masonic Lodge. This dates from 1728, and is one of the best early 18th century houses in the burgh.

In the Georgian period Elgin was much extended, to the extent of building two satellite villages, New Elgin and Bishopsmill, which will be mentioned later. The economic situation changed, trade expanding not so much with Holland, which had been its main trading contact until then, but with London, Leeds, Manchester, Birmingham and Newcastle. The Georgian developments are directly influenced from the south, through the usual channel of the copy-books published so profusely during that period. In the early 19th century there was work by Archibald Simpson (e.g. Anderson's Institution, St Giles' Kirk), Gillespie Graham (Gray's Hospital) and William Burn (the Assembly Rooms, and the Episcopal Church). The streets were opened up and new ones developed; North Street was begun in 1820 to provide an outlet from the High Street to the north. In the smaller houses of this period the use of the local sandstone contributes much to the maintenance of the local stone tradition.

Nairn is the third of these Moray Firth Lowland royal burghs, but is of less interest in this context. It also was developed along a main east-west street at a significant place in the region; for it stands at the border of the Highlands and the Lowlands. It was thus not an entirely idle remark by James VI when he spoke of a town in Scotland so large that the inhabitants at one end did not understand the language of those at the other. Nairn was in two parts, with

1 Cf. R.G. Cant, Old Elgin, 1954 (an invaluable summary of the old layout and houses, from which most of the information is taken).
Gaelic-speaking landsmen in the main part, and Scots-speaking fishermen at the north. This division is reflected in the layout still, and later developments in the 19th century, when the railways came and the mild climate made it an attractive resort, provided a third.

Nairn therefore consists of the oldest part inland, with its Street and vennels, the Sea Town at the mouth of the river, subsequently added with typical rows of fisher houses, and the New Town, with regular streets, to the north and west. The houses are substantial, the stones for many of them having come from Kingsteps Quarry, east of the Golf Course.

The last of these provincial capitals, Banff, is of the greatest interest, and is very fully illustrated (Pl. 241 - 256). At first sight, its plan (Fig. 67) is a fine jumble; and Banff never achieved an orthodox layout even with its development in the 18th century. But the main constituent parts are clear - the mediaeval burgh to the east of the town, the Sea Town to the north beside the harbour, Scotstown (a row of fisher houses built about 1850 to house fisher families from Portknockie) to the west on the shore, and the long street, Castle Street and High Street, linking up the two main parts. High Street, like its parallel fellow, Low Street, is a deceptive name; in common with many of the coastal towns, it refers to the street on the higher level, not to its status. Low Street is in fact the main street of the old burgh.

Banff is a royal burgh, and was the seat of the sheriff as well as the home of a significant monastery of Carmelite Friars. The heart of the burgh was Bow Street, widening out to the north where stands the Mercat Cross (16th century). The Tolbooth also stood here on the

1 Cf. a statement made in 1791 by Newte: "The north-west end of the town is composed of miserable Highland huts".

2 Cf. Winn Green, F.H., Urban Centres of the Moray Firth Lowlands, 177-179.
corner of Low Street (called the "Plainstones") and Strait Path (Pl. 250, 251). The Town House (Pl. 256) of 1796 now faces that site. The Carmelite monastery stood to the east of the main street; its cemetery remains. The steep slope on which Banff is built probably accounts for the peculiarities of the rest of the development. High Street is joined to Low Street by two very steep roads or wynds, Strait Path and Back Path (Pl. 248, 249), and around High Street are some excellent early 18th century houses. The main road had been forced to wander round the town.

The Sea Town came later and was laid out in a methodical way, in the 18th and 19th centuries. The inner harbour itself was built in 1775, the outer breakwater by Telford in 1816. The two parts were separated by the castle, and Castle Street was driven through its grounds to form a link between the two parts of the burgh. The unsatisfactory layout was a preoccupation of the owners in the early 19th century, and a plan was put forward to the Town Council on May 26, 1829 for an extensive development to the west of the old town. It would have made a thorough reconstruction of the link between the Sea Town and the south, as far as the toll bar on the road to Aberchirder. There would have been three parallel street, with an open square at one end and a market square at the other (the north end). The similarities between this plan and Craig's plan (on a much bigger scale) for Edinburgh are obvious. The plan was abandoned owing to disagreements on the part of the proprietors.

Excellent houses of most of the periods of development remain despite much destruction and constant threats of road widening. The

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2. NSA Banff, 44-445.
Market Inn (Pl. 24.1) is one of the oldest houses; in its courtyard is a date-stone from 1585, though most of the building is later. 17th century houses remain on the corner of Carmelite Street (Pl. 24.4), and around High Street there are good closes (e.g. Pl. 24.6) and early 18th century houses (e.g. the ogee-gabled house in Boyndie Street with a date stone marked IO MS 1740). Houses of the Georgian period are to be seen in both Low Street and High Street on the old building lines (e.g. Pl. 252-255); the Fife Arms Hotel (Pl. 253) is a fine structure of 1845.

Banff has had mixed fortunes, and seems constantly to have been a town in danger of decline. Its harbour silts up, filled with the downwash from the river Deveron, while its rival on the other side of the Bridge remains unharmed. Banff has therefore stayed small and a little stuffy; but it was a place of considerable politeness and social importance in the late 17th and 18th centuries, and has retained much of the elegance it gained at that time.

If these were the main royal burghs in the region, there were also three others contained within the trading regions of the county towns. Aberdeenshire had two - Inverurie and Kintore. Inverurie is an ancient foundation, sited on the river Don and the headquarters of the rich agricultural district of the Garioch. 1 The Bass, a conical mound, is the remnants of an old motte. The confluence of the rivers Ury and Don provided it with its important position, and this was enhanced when the Aberdeen-Inverurie Canal was constructed in 1807.

1 In 1633 it was made the head burgh of his Lordship's regality of the Garioch (Earl of Marr): "to be the place where all courts of justice and all executions belonging to ... the regalitie of Garioch ... etc." (Acts of Parl. of Scot., quoted by NSA Inverurie, 678).
The agricultural produce of the Gerioch was exchanged for the coals, lime and manufactured goods of the city. In layout, however, Inverurie is of little interest to this study; there are excellent 19th century houses, but the older pattern has been largely lost.

Kintore, on the other hand, having failed signally to expand and maintain its mediaeval importance, remains the simple street and branch streets which it has always been (Pl. 224). Its castle has long ago disappeared, and its houses are mainly of the 18th and 19th centuries, and in size the whole burgh is no more than a village. But it retains an outstanding specimen of early 18th century architecture in the shape of the Town House (Pl. 225-227). It is a plain building, of squared granite, with an outside forestair and a small clock tower. The stair leads up to the Council room, which occupied the whole of the upper floor; underneath are stores, a shop at the rear, and originally the town's meal ginnels. It was built between 1737 and 1747, and is commonly said to be based on a town house in Holland and to be an example of direct Dutch influence. Having looked carefully at town houses in all parts of Holland for several weeks with this in mind, I cannot see that the influence is as direct as it is reputed to be. If the builder did have in mind that he was creating something like a Dutch town hall, he must have modified his concept almost wholly according to local practice; the building is in effect a simple early Georgian two-storey house with a stair and a tower added. The recent restoration has revealed the quality of the stone work, and details of the stair and of the walls are shown (Pl. 226, 227).

In Banffshire, not far from Banff, is the royal burgh of Cullen.

1 Smith, A., A New History of Aberdeenshire, II, 857.
It had that status from the 12th century, and was an interesting example of how small and undistinguished a royal burgh could be. Cullen will be discussed more in the next chapter, because the whole burgh was demolished and a new town built by the Earl of Seafield between 1820 and 1830, at a greater distance from his mansion, Cullen House. Records and some maps, however, remain of the old burgh (Pl. 72). It consisted of one straggling street of small houses with their gables to the street, in much the same form as the fisher villages - or, it may be, in a kind of rural version of the more compact burghs such as Forres and Elgin. In the centre the street widened out, and there were the Marcat Cross (1693), the Tolbooth, the Church and School. Of this whole burgh, only the church remains, in close proximity to Cullen House; and the estate offices occupy the position of some of the earlier buildings in the centre of the town.

Even in the 17th century, it was not much of a credit to the district. Gordon of Straloch wrote that it "enjoys the rights of a burgh, but is without a proper harbour, and is scarcely worthy of the name of a moderately-sized village". A description by William Ogilvy in 1724 confirms this; the town was about half a mile in length and had only one street. It had some slated houses at least, and in 1614 one such was built 25' long and "twa hous hight". But there are other references to the poor condition of even the public buildings; later, in 1718, occurred the "up-putting of the steeple and tolbooth and bell and public clock". No one seems to have thought the removal of

1 Town of Cullen, 1764, in Seafield Estates Office, Cullen.
3 Ibid., I, 72.
4 Cramond, Annals of Cullen, 28.
5 Ibid., 78.
the burgh a case for any degree of preservation; indeed during the whole period of the demolition and removal there is not a single mention of this event in the Town Council Minutes. It seems more than possible the old Cullen never recuperated from its wholesale plundering by Farquharson of Braemar on the orders of Montrose in 1645.

The remainder of the principal market towns were mainly burghs of barony. They have little in common in their layout apart from a basic simplicity and a form that is derived from the peculiarities of the site. And they acquired most of their present characteristics at the time of their expansion in the 18th and 19th centuries.

Old Meldrum was a burgh of barony, acquiring that status in 1672. From then it expanded, with the growth of handloom weaving and the knitting of stockings. It is a road-junction town, with a market square (it had a weekly market) at the junction. The population reached about 1000 and then dwindled. Turriff (Pl. 210, 211) was made a burgh of barony in 1511. It is a settlement of great antiquity, and occupies a very good position. It is about half way between Aberdeen and Elgin on the broad table land near the junction of the Burn of Turriff and the Deveron. It was said:

"Choose, choose ye, at the Cross o' Turra, Either gang to Aberdeen, or Elgin o' Moray."

It is an important agricultural centre. Although it retains near the church some of its old features, such as the Market Cross (Pl. 210), (re-erected in 1865), the major part of the town is an 18th century layout on a rectangular grid. The houses (e.g. the hotel, Pl. 211)

1 Cramond, Annals of Cullen, 115.
2 NSA Meldrum (1840), 478-480.
are nearly all built from the local red Delgaty sandstone.

Huntly is the largest of the inland towns in Aberdeenshire, and is situated at the confluence of the Deveron and the Bogie. The centre of the lands of Strathbogie, it was a castle stronghold under that name for the greater part of its history, a place of the greatest strategic importance at that river crossing. It became a burgh of barony in 1545, and obtained its name from the Gordon family who had lands so named in Berwickshire. Its plan was at first made up of two streets crossing each other roughly at right angles. But in the 18th century Huntly took a new lease of life, with the introduction of a linen industry in 1768. By the end of the century it was known familiarly as the "Paisley of the North". At this stage the town was almost re-planned on a grid pattern. There are two plans of Huntly in the Gordon Estates Office at Fochabers, one of 1770 and one of 1823, which indicate the change. In effect the old crossing streets were straightened out and parallel streets were built into the grid; but it never became quite complete. The old crossing is the new market place - a spacious square with halls and hotels and a colossal statue of one of the Dukes of Gordon.

Of the small burghs of village size, two are illustrated. Fordyce in Banffshire has always been like a "little village". It was made a burgh of barony in 1499. It is in effect a cluster of houses around a castellated house (Pl. 212) of 1592, a ruined medieval church, and a noted Grammar School. It was noted as not thriving in the 18th century; from plans of that date it is clear that hardly any essential change has happened since in its layout. An unusual feature, in need of restoration, is a curved row of cottages (Pl. 213) along one...

1 Plan of the Town and Lands about Fordyce, Seafield Estates Office, Cullen (1764).
side of a wynd near the castle.

Garmouth, on the edge of the Spey in Moray, was one of the ports which served Elgin and the inland parts of Moray. It became a burgh of barony in 1589, and was the place where Charles II landed in 1650. But its value declined, owing to constant ruination of its harbour facilities by the Spey when in spate. In the 18th century, it was largely reduced to exporting timber floated down the Spey; and shipbuilding was carried on. But in 1784 a new port was founded further down the river - Kingston - and eventually a change of course by the river made Garmouth an inland village.

It therefore remains a little-touched example of a small burgh (see plan, Fig. 65, and views, Pl. 217 - 223). It is an entirely irregular layout along meandering roads, the perfect "unplanned" settlement. But there is nevertheless a definite sense of order about the houses in their setting, created by the fact that the layout is really a collection of tiny groups of buildings. Some are set back from the road, with small gardens, and at corners the street usually widens out and forms a series of very satisfactory street pictures.

A sense of unity is given by the predominant white limewash on the houses, many of which are of clay and straw construction (these have been considered in Chapter 2).

Other examples of the burghs of barony can be briefly summarised. Fyvie, in Aberdeenshire, was one from at least the 14th century, and there is a charter of 1672 making it a "free burgh of barony" with provision for its magistrates, mercat cross, tolbooth, craftsmen's guilds, etc.¹

A small group of dwellings, it is mainly built of the red Aberdeenshire

¹ NSA Fyvie, Aberdeenshire, 329.
sandstone. Tarland is a very attractive village, which was also a burgh of barony; there is, however, a reference of the early 18th century to its being a burgh of regality with a tolbooth, a Victuall House and a good number of houses.\(^1\) In fact it seems to have consisted of 68 houses at the end of the 18th century; and four tenants had the whole of the village and attached ground. In 1799 it was completely surveyed and the ground was re-allocated to all the householders on new leases. Nearly all the houses were rebuilt.\(^2\) Tarland today is descended from this new village, and is neatly grouped around a square market place.

There is essentially no difference between such burghs and those which seem always to have been settlements without any burgh status. Old Deer, Aberdeenshire, (Pl. 214-216), is one of these. It is an unplanned village, derived from a kirktown, and consists of a single street, forking at the end where the street is dominated by the church. The houses are nearly all of granite, and formerly they were thatched. The village does not seem to have changed for a long time, until about the middle of the last century, when most of the houses were rebuilt, and the layout straightened out without changing it in any essentials. Lanes lead off from the street towards the fields, and there are good rows of cottages along these lanes.

Kincardine o'Neil on Deeside is another; the ruins of a mediaeval church testify to an earlier significance. It is placed at an important point on the old road system, where the Mounth roads cross the Dee; it formed part of the route over the Cairn o' Mount and up to Huntly and Elgin. Its inn seems to have been one of the most important elements

\(^1\) Macfarlane's Geog. Coll., I, 25.

\(^2\) NSA Tarland and Migvie, Aberdeenshire, 843-844.
in the village from early times. It is a street village, lined with rows of houses and a number of gables set towards the street, most of which seem to be of late 18th and early 19th century date.

In general, where the old small settlements which are now designated villages are concerned, they can nearly all be related to the functional system outlined at the beginning of this chapter. If their history is traced back, they all seem to have originated either as a farmtown or clachan, or as one of the kirktowns, castletowns, milltowns and so on, and to have occasionally become burghs of barony in a secondary phase. Thus Old Rayne was an ecclesiastical settlement which became a burgh and is now a village; Clatt is a kirktown which became a burgh. Villages which are simply kirktowns include Rathen, St Fergus, Auchterless, Tullich and Methlick - all in Aberdeenshire; and, for comparison, Dyke and Auldearn in Moray. Rothiemay is a village descended from a milltown, Grange a village that was a clachan; Braemar is from a castletown (and keeps the name); Kildrummy is a kirktown. Alford is sometimes described as a parochial village, but at the time of the New Statistical Account it was no more than a dozen cottages dispersed over three-quarters of a mile; and other references in that account indicate the lack of villages, unless, for example, "nine cottages at Heugh-Head" can be called one.

This comment, in fact, summarises the situation. There is a charm about some of these random settlements, but no basic constitution as villages that gives a character to the countryside. What

1 NSA Alford, Aberdeenshire, 500.

2 NSA Strathdon, Aberdeenshire, 553.
real tradition there was up to the 18th century in the building of settlements was an urban tradition, developed in the more prosperous burghs. It will already be obvious that many of the old hamlets and small burghs were redeveloped in the 18th century; and it was that century that saw the creation of a real village system by deliberate planning.

The background to this movement has been discussed in some detail in Chapter 5 of Part I. The agricultural changes that transformed a series of farmsteads into neat, enlarged single farms, and vastly increased the productivity of these farms, put large numbers of people out of their homes and their occupations. At the same time, the expansion of local industries and trades provided new employment. The years following the 18th century communications were improved and the management of land altered, were years of considerable economic and social development. The founding of villages was an essential part of this economic revolution. They not only took in the surplus population, but provided a means of stimulating new energy to drive millraces and employment. The transformation of the farming system would not have been affected without for greater equality and security must be in fact entailed, had the new settlements not been made. They were not
Chapter 7

The Planned Villages

The settlement pattern of the North East Lowlands was profoundly altered in the 18th century by the erection of planned villages. Village planning was one of the major enterprises of the improving landlords, who created, almost from nothing, a whole village system; and effected, without probably being aware of it, a piece of regional planning on a scale that is rivalled only by the burgh foundations of the early middle ages.

The background to this movement has been discussed in some detail in Chapter 5 of Part I. The agricultural changes that transformed a series of farmtowns into neat, enlarged single farms, and vastly increased the productivity of those farms, put large numbers of people out of their homes and their occupations. At the same time, the expansion of local industries and trade provided new employment. The years following the '45, when communications were improved and the management of land altered, were years of considerable economic and social development. The founding of villages was an essential part of this economic revolution. They not only took up the surplus population, but provided a means of stimulating industries to create additional employment. The transformation of the farming system could not have been effected without far greater cruelty and hardship than it in fact entailed, had the new settlements not been made. They were not
uniformly successful, nor all the same in intention and type; but they contributed as a whole to the social and economic organisation of the region as it exists today.

The movement was not confined to this region. It seems to have begun in the Lothians, where, as early as 1735, Cockburn of Ormiston was laying plans for his new village. Many of the rural centres of East Lothian are the offspring of this period. Villages were built there, in central Scotland, and as far west as Inveraray, a plantation of lowland settlers in a Highland district. The improving landlords met to discuss these matters\(^1\), and official bodies were also concerned in them. The Commission for Forfeited Estates, the Board of Trustees for Manufactures, the British Fishery Society, were alike advocates for and in some cases (like Tobermory, founded by the Fishery Society in 1788) founders of villages. Thus in 1767 a general inspector of the Board of the Annexed Estates was advocating in a report the erection of villages in each barony with feus for tradesmen, and referring with approval to the activities of Lord Findlater at Keith in this respect, which were inducing many others to follow his example.\(^2\)

This indicates in itself something of the origins of the movement. It was begun by individual landowners, who were also the pioneers in the agricultural changes; and the movement gained impetus from study of their example. Landowners corresponded on the necessity and form of their proposed villages; the Duke of Gordon carried on a correspondence with Lord Auchinleck on the advantages of founding a village before setting about the planning of Tomintoul.\(^3\) How widely the movement spread

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1 The Society of Improvers in the Knowledge of Agriculture was founded in Edinburgh in 1723.

2 Gaffney, J.V., ref. to Forfeited Estates Papers: General Management, Vol. 94, 73.

3 Ibid., 73.
in the North East can be seen from the map of planned villages, Fig. 69. Their concentration in certain areas is in part due to the circumstance of the owners in those areas being of the village-planning mentality; but it also reflects the development of areas, such as Buchan, which had previously been agriculturally backward and where large tracts of land were reclaimed at this time. The villages in these areas are again a reflection of and a part-cause of the new pattern of communications that were opened up in the late 18th and early 19th centuries.¹

The villages were mostly founded with a view to mixed occupations for the inhabitants. They were partly agricultural, either homes for labourers in the vicinity of the farms or smallholdings for people with another trade as well. In all cases the villages were designed so as to give a small plot of land to the tenant of each house, and a larger one beside the village (lotted lands) if he wished to take it and was approved of by the landlord. It was possible therefore for a villager to be either a hired labourer, a tradesman with the minimum of land, or a small crofter with a house and garden and one or several lots²; and much of the subsequent development of the villages is the result of the fortunes of these alternatives. They were laid out by surveyors, some of whom were the direct employees of the landowner and some independent men paid for a particular job.

The peak period for the planning of villages was the second half of the 18th century. The drawing-up of the first Statistical Account in the 1790's provided an opportunity for comment upon them; and the

¹ In general, see Houston, J.M., Village Planning in Scotland, 1745-1845.
² Nearly all the Buchan villages, e.g. New Deer, New Pitsligo, Strichen, Newbyth, Fetterangus and Cuminestown, were built between 1760 and 1770 to house mainly crofter-weavers.
editor, Sir John Sinclair, who had been one of their most enthusiastic protagonists, published in his Analysis of the Statistical Account (1825-1826) a useful summary on the purpose of villages and the desiderata for their layout.¹

They were necessary, he considered, to combat the evils of scattered populations and of the towns, and could provide a useful centre for markets and for industry. The old Scotch villages he thought detestable; irregular and unpaved, they kept to the "abominable practice of placing the dunghill before their doors". Some people objected to the villages on the grounds of their leading to the congregation there of the most worthless and dissipated members of society. But Sinclair found greater advantages. Villagers should be contented and unambitious, and have the pleasures of society, exciting social affections and introducing urbanity among them (Sinclair's views on urbanity are remarkably similar to current thoughts by planners on this matter). The villages fostered trades, and gave the opportunity of a liberal education without infection from the bad company of towns. They improved the surrounding countryside by providing local markets and acting as a stimulus; they were an asylum for farmers and cottagers when driven from their possessions by the increasing size of the farms. Such people could become dealers of grain and meal, etc. Mechanics could go to the villages, where they would be exempt from the restrictions of the incorporated trades in the burghs. There was room too for day-labourers, a surgeon, baker, vintner, grocers, butchers, weavers, stockingmakers, masons, tailors, coopers, innkeepers, roadmakers, haberdashers, and even sometimes for milliners and mantuamakers.

On the Proper Situation and Plan of a Village², Sinclair concluded

² Ibid., 179-180
that the village should be sheltered and somewhat elevated, be near a 
stream or good water and good soil if possible. Its plan was 
preferably one row. Two rows opposite each other accumulated filth 
unless the street were wide enough; and when they were on a public road 
they were inconvenient, as carriages endangered safety, broke up the 
streets and made mire — while the villagers also caused obstructions. 
(Sinclair’s advice in this respect does not fortunately often seem to 
have been taken.)

On the Rules for Villages \(^1\), he advocated the need for not asking 
high rents from the tradespeople, for keeping out beggars and vagabonds, 
and for ensuring that the population did not exceed the industry (his 
advice seems again to have been frequently wasted). In whatever form 
the village was, it was essential that only dwelling houses should be in 
front, and that byres, barns, coalhills, dungsteads and stacks should 
be placed behind them. A passage at the end of every two houses was 
useful for the gardens. Gardens in front had a pleasing effect.

On the Distinction of Villages \(^2\), he divides the types into 
Agricultural, Manufacturing and Fishing types. In the former day 
labourers and artisans were of help to the farmers; the small portions of 
land might not be enough to keep a family on, but where the wives did 
spinning, it was possible for a man with only 12-14 acres of land to keep 
a large family "snug and comfortable". The manufacturing villages also 
had pieces of ground for the tenants or feuers. The fishing villages 
showed the greatest population expansion of all; there too portions of 
land were needed because of the slack times. (The fishing villages, both


\(^2\) Ibid., 182-183.
planned and unplanned, are treated in the next chapter.)

It can be seen that Sinclair's suggestions were by no means generally carried out. But his enthusiasm for founding villages was frequently echoed. Thus Skene Keith in reporting on Aberdeenshire commented on the number carried out in the last thirty-eight years of the 18th century and affirmed that neat villages of 100-150 inhabitants were greatly preferable to cottages scattered all over the place. His sentiments were echoed in most of the other agricultural reports.

It is impossible in the space of this study to discuss all the planned villages in the North East in detail. In seeing how they were carried out, it is more convenient to mention some of the pioneer villages, treat three or four in some detail, and summarise the founding of many of the others and the characteristics of the villages as a whole.

Two small villages will serve as examples of the pioneer spirit. Sir Archibald Grant of Monymusk has already been mentioned in connection with his inauguration of the agricultural improvements. Among these activities, he recast the old Kirktown of Monymusk (Fig. 70, Pl. 257, 258). Using the church as the key to the plan, he formed a neat square of houses, and to it related the sites of his lint mill, bleachfields, etc. This is the simplest of all the planned villages. It has retained the form he gave it, although nearly all the houses have been completely rebuilt, and the few older ones have been much altered. Some date from about 1840; the ends of the east side of the square are dated 1891 and 1899;

1 Skene Keith, General View ... of Aberdeenshire, 139-140.
the south side is 1899 and the west side 1901. In the middle of the west side stood the inn, which was always a feature of any new village. Udny Green, near Ellon, by Udny Castle, is another tiny village, planned around a triangular green (Fig. 71). Although I have not been able to ascertain its date exactly, it seems likely that it was laid out when the fields by the castle were squared and when the trees were planted along the avenues. This seems to have been about 1750.¹

The procedure followed in the erection of a planned village was the subject of part of a recent study of Tomintoul², based on an investigation of the mass of material in the Gordon Castle Papers, now in Register House, Edinburgh. These establish the date of the foundation, and give an interesting picture of the work done in laying it out. Contrary to the opinion expressed in the New Statistical Account, which gives 1750 as the date of the village, it was in fact designed between 1775 and 1778 and begun in 1779.

Since it is not immediately apparent why a village of any kind should exist at Tomintoul, remotely placed in the Highlands at a height which makes it inaccessible in winter, and since the whole village has the unmistakable air of a failure, it is important to emphasise the different conditions at the time of its erection. Certainly it was by then fashionable to plan villages. But also the site had certain natural advantages. It is a plateau about 1 mile by ½ mile on a well-drained layer of old red sandstone. Furthermore a number of roads converged there. The new military road of 1754 from Braemar to Grantown-on-Spey passes along the Lecht and through the original farmtown of Tomintoul; and there it is

¹ NSA Udny, Aberdeenshire, 132.
joined by the old drove road from the south (coming from Deeside via Inchrory), and another road (then a track) goes across the Conglass towards Tomnavoulin and eventually to Gordon Castle at Fochabers. Set between the Avon and the Conglass at a convenient stopping place on the military road (the inn at Camdellmore near Bridge of Avon was a well-known point), Tomintoul was in effect a road junction village. Adding to this the enthusiasm of the Duke of Gordon for resettling the Highlanders after the troubles of the earlier part of the century, the redistribution of the agricultural land, and his keenness to foster a local weaving and linen industry, it is apparent that the conditions necessary to make a village were all there. Such villages as Grantown, Keith, Monymusk were examples to be followed.

The Duke discussed his proposals with Lord Auchinleck. Among the Gordon Castle Papers is a document, undated and unsigned, setting forth the proposals for the village. From references in it to the progress of the linen manufactory, it belongs to about 1770; and it is here given in full.

Proposals for Erecting a Town at Tomantoul

The Duke should lay out a town in a regular manner so as the Publick Road may be the High Street and in the first place after the Plan of the Town is properly made out to order a right Publick house for the accommodation of travellers and others to be built in the most centrical part of the Town.

Secondly. To feu out Tennements to be built in a regular manner agreeable to the Plann all fronting the Street of equal hight and as uniform as possible with gardens and office houses behind them and to give such encouragement by letting the inhabitants land, partly what is allready arrable and other part of the muir for them to improve -

Thirdly. To cause build a Lint Miln on either Conglass or Avin

1 Quoted in Gaffney, op. cit., 75-77.
as may be found most convenient which will draw the lint of the
neighbouring countries to be dressed and encourage the inhabitants of
Strathavin and Glenlivat to raise lint themselves -

**Fourthly.** It would be a very proper place for a Bletchfield and a
Spinning School would be a great use to the country -

**Fifthly.** The Kirk and Parochial School might be removed there as
the most centrical place of the country at least more so than where
it presently stands and if the town improve which it cannot well miss
off if proper means be used it will very soon be the most populous
place in the country.

N.B. There is a freestone quarry near by and plenty of Sleat which the
Feuers may have a liberty of winning and carrying away. Stones to
their houses and inclasures. They will also have near them Limestone
and unexhaustable Moss so that the Duke could afford to cause manufacture
the Lime and sell it reasonably. They can have firn wood for their
houses at a short distance for moderate prices -

There is a Moss near Tamantoul call Faindouran which the inhabitants
may have an universal liberty to cast for firing and burning of lime
unless it be found necessary to reserve a piece of it for Camvellmore.....

The document then goes on to propose five annual fairs and one
weekly fair; in fact, only two annual fairs were authorised at this time.
Particularly notable in the document is the stress on the founding of a
public house (the same insistence was made initially at Fochabers), the
need for industry, and the insistence on the regularity of the plan and
on the availability of building materials.

In 1770 the Duke took into employment Thomas Milne as his surveyor.
He had previously been with Lord Fife for two years. He began work for
the Duke in May, 1770, at a salary of £30 sterling for the first year
and £35 for the succeeding two years, living at the Duke's expense while
at Gordon Castle or any other of his houses, and with two shillings a day
for board when elsewhere. He was busy with surveys of Fochabers from the
time he started¹, and also carried out a number of big surveys of Strathavon

¹ Cf. Plans signed by him in Fochabers Estate Office.
Then in 1775 he produced the "Plan for a Village at Tamantouel" (Fig. 79). This first plan shows the village superimposed on the existing layout, with surrounding land earmarked for the use of the village. It is a rectangle roughly 660 by 580 yards, with a "Square of 300 feet". (i.e. a simple measurement of 100 yards per side.) The tenements are numbered up to 65, but this numbering was subsequently changed and the crossing-out on the map refers to this. In the margin it is noted that the "School and House (were) to be built on No. 22", which was in fact where they were erected. The road to Glenlivet was supposed to start from the square and cross the Conglass at a convenient point; in fact the bridge was later built further to the south and the road from the square became quite secondary.

In April 1777 Milne and the factor spent eight days marking out the tenements on the ground, and the lines of the street (40 ft. wide) and the square. Then it took him another five days to draw out a more detailed plan on the basis of this experience. (This is worth mention as it is clear from many of the other village plans that the plan was usually not based on site considerations, but was designed wholly on the flat.)

The next stage, and really the most important, concerned the redistribution of the arable and grass lands surrounding the village. Real progress was not made until this took place and the cottars could move to a satisfactory holding. The original Tomintoul lands were divided, the arable into 21 lots and the grass into 4 lots. Most of the arable lots were from $1\frac{1}{2}$ to 2 acres (see 1778 plan, Fig. 79). The whole layout was on generous lines, with ample space for development. A

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1 In Glenlivet Estate Office.
feature of the plan was the placing of a cross lane giving access to the back lanes after every fifth tenement.

The building began in 1779. Progress was slow; by 1791 only five persons held feus. The Old Statistical Account mentions 37 families there in 1794, and records the failure of the manufactures. This graphic and doubtless exaggerated description has already been quoted (Part I, Chapter 13). Growth of the village did not really occur until the 19th century. The village was re-surveyed by George Brown, another surveyor whose plans appear in other estate offices, in 1807. By 1825 more use had been made of the strips, and a new bounding line on either side of the village down to the lower (back) roads was fixed.

That the regularity of a village plan was easily upset (and this is always the case with planned villages) is clear from a document of 1825, "Arrangement of Tenements and Lotts". This notes that one tenant had 15 ft. more than his proper breadth of tenement, but he "is an old man and an object of charity" and was not to be interfered with while he lived. By this time the village had nearly 100 tenants; in 1832 there were 132 families and in 1842, 143 families, giving a total of 530 people. Of these 56 of the families occupied all the land.

Tomintoul was not wholly a success. Queen Victoria recorded in her diary for September 5, 1860, that it was "the most tumble-down, poor-looking place I ever saw - a long street with three inns, miserable dirty-looking houses and people, and a sad look of wretchedness about it. Grant told me that it was the dirtiest, poorest village in the whole of the Highlands." In more recent times it has been mainly the tourist trade which has given the village any prosperity.

1 Gaffney, op. cit., quoted p.108.
2 NSA Kirkmichael, Banffshire, 305.
3 Quoted in Groomes' Ordnance Gazeteer, 1885.
Fochabers is perhaps the most beautiful of all the planned villages in this region, and is certainly a far more successful venture than Tomintoul. It stands in Moray, on the east bank of the Spey, not far from its mouth, and was another foundation by the Duke of Gordon. (Figs. 74-78, Pl. 264-303.) In view of the unusual quality of its architecture, the clarity of its plan, and the special characteristics of its walls and details, it is very fully illustrated. It is an example of a planned village designed to replace an old burgh at a greater distance from the landowner's mansion: a conscious attempt to beautify an estate and improve the amenity of the castle. The Duke simply demolished an entire village and built a new one out of earshot.

Until the last years of the 18th century Fochabers was a typical small burgh, of irregular streets loosely based upon the King's Highway, with the gables of the houses facing the road and development along the rigs at right angles to the mainroad. In the centre was the market place, a rough square, punctuated in the middle by the Tolbooth; from the north side of it gates led to Gordon Castle (originally Bog of Gight), about a quarter of a mile away. (See Fig. 74, Map of Fochabers by Thomas Milne, 1770.) It was described early in the 18th century as "a country village of about 600 inhabitants ... on the end of the town w. ward runs the river Spey, where there are fine passage boats. In which town is also a grammar school, several good lodgings and inns, Lykways a large solated house in the lower story of which ar maintained several popish beadem men wearing their bleu gowns. The upper story furnish'd with alter Ec. for popish Mass."  

The Duke of Gordon had in mind the replacement of the village from  

at least 1770, because in that year (the year in which he joined the Duke's service) Thomas Milne prepared a plan of the old village with the outline of a new village drawn on. This outline is in nearly all respects the same as the plan of the village carried out, except that its size was increased by lengthening it another third without changing the tenement layout.\footnote{In Gordon Estates Office, Fochabers.} The village was not only further from Gordon Castle, thus allowing the Duke to develop its policies with a formal exercise in landscaping; it was also more directly on the post road from Cullen to Elgin, rebuilt in 1774, and conveniently placed in relation to the all-important crossing of the Spey. The new roads and the new bridge (1803) all formed part of an extensive scheme of replanning.

Another plan, of 1778, in which the building plots or tenements are worked out more fully indicates that no building had begun by then. The basis of the layout was that its minor axis, through the square, was aligned with the tower of Gordon Castle. The major axis was the main highway. There would therefore have been a vista of Gordon Castle in perspective from the market square; this has now been lost, partly by the erection of the Episcopal Church in 1832 (consciously rivalling the Parish Church at the wish of a converted Duchess) and partly by the post-war demolition of nearly all of the castle. The basic planning unit seems to have been the fruit of studies by the architects employed by the Duke to design his town. If Milne did the first layout, he was not employed on the town much after it. The Duke worked in this case with well-known architects from the south. Designs for houses by John Baxter and Abraham Roumieu, most of them not executed, are preserved in the Estate Office, and show a considerable investigation of house and layout types.
before the building was done. The dating of many of these by Baxter in 1776 and 1778 (Pl. 268-271) suggests that these were the years in which the bulk of the preparations were made. Among the designs is a particularly interesting one by either Baxter or Roumieu (probably by the latter from an amateur glance at the handwriting), entitled "Sketch of a Tenement 60 x 135 ft." (Fig. 75). This is roughly the planning unit, though most of the tenements are in fact about 42 x 150 ft. It shows a plot with a type plan for a simple house of the Moray type (a widened, two-storey version of the but-and-ben), a garden and outbuildings. These face the back street (16 ft. wide); and allowance is made for the essential dung hill and lavatory (little house).

Building must have proceeded during the 1780's. Baxter designed the Bellic Parish Church, that dominates the square, and completed it in 1798. The plan of the village is typical of the slightly more elaborate villages, owing much to the kind of layout designed by Craig for Edinburgh. It consists of a main street and two parallel streets, with two back lanes separating them and acting as service lanes to the back of the houses. The cross streets are simply through the square and at the ends; and because of the enlargement of the village there is an intermediate one as well. The inn (Gordon Arms, Pl. 277, 278) illustrates the use of the tenements and the access to the building. It was one of the first steps taken by the Duke in erecting the village, and was conspicuously placed at the nearest point to his new entrance gates. The inevitable development of this plan has been the building up of erstwhile back lanes, so that they have become streets with house fronts on them, and the garden spaces have in many cases been reduced.

Beside the church in the square were placed the important
administrative buildings - a house flanking it on each side, designed (to judge by extant plans) by Baxter, probably. By giving a surface treatment of arcading to the ground floor exteriors, he attempted to unify the whole composition of the side (Figs. 77, 78, Pl. 275) in a characteristically 18th century manner. One, now Darnley House, was the house of the Baron Bailie, the officer in charge of the legal running of the estate and of the burgh. The other, now the Estates Office, was the Baron Court. Several early sketch designs exist, which suggest that amendments were made after the building was begun and may account for the false windows on the ground floor behind the staircase (which was differently placed in the first designs). The dummy windows are painted, but the stone has been shaped to suggest the recession of the lower casement. Originally the office contained the court, a school, the meal store (girnel) and a prison. The prison is now the Clerk of Work's drawing office.

Most of the original houses remain. Some are harled and lime washed; all are simple, well-proportioned Georgian houses, and there are some excellent doorways such as that in Pl. 283. Particularly fascinating is the development of a real local character by the interpretation of the Georgian house in entirely local materials. Yellow sandstone from Elgin enhances the detailing of the houses; but there are also superb walls (Pl. 289-302) made with rough stones or river-worn stones from the Spey. A wide selection of these is illustrated and their character can be seen; but mention should be made of what is locally reputed to be the best example of stone walling in the area - the house in Institution Street (Pl. 293-296). The stones are all, except for quoins and rybats, "boules" from the Spey. They are set in lime mortar, and
some have been "napped" to give a flatter surface. It is one of the most skilful examples of mason’s work that I have seen in the North East, and is symptomatic of the high standard of craftsmanship that Fochabers enjoyed.

The planning of Cullen is an example of the same process of beautifying an estate, and it resulted in nearly as fine a village. The old royal burgh of Cullen, hard up against Cullen House, has been described in the last chapter. It was removed between 1820 and 1830 by the Earl of Seafield, the heir of that Earl of Findlater who had been one of the pioneers in the agricultural revolution and had already been responsible for the planning of New Keith in 1750.

The Earl had had it in mind for some years previously. On the edge of the shore stands, in much the same shape as it stood then, the Seatown of Cullen. In 1790 a plan was prepared "for the Improvement of Cullen" by T. White\(^1\), in which it was proposed that the royal burgh be moved to that site, grouped round a square, and a new Seatown be built on the east side of the present harbour. Fortunately this was not taken seriously, and it was decided to place the new town on the highland immediately above the Seatown. The first extant plan for the town is unsigned and undated, but appears to be by the same hand as another of 1817 by Peter Brown, which is much the same but more complete. In the same year the harbour was begun under Telford’s direction and at the expense of the Earl.

These plans show a plan much like Fochabers, with a main street 50 ft. broad, other streets 40 ft., and minor roads of 15 ft.; and lanes 6 ft. wide pass between every two feus. The square was planned to be

\(^1\) Seafield Estates Office, Cullen.
130 by 210 ft., and the Town House was to go at one end. This was the plan adopted, but it received some modifications. The next planner, George McWilliam, made some modifications, in ink, and later copied them in a fresh plan of 1825. He made the main street 60 ft. wide (from house to house) by building the houses in Seafield Street 5 ft. back from their first building line. There was to be a regular feu 48 ft. in front, 175 ft. to the back, with the houses 5 ft. back from the road. The lanes between every two houses were retained. The public building in the square was now to be a church.

While this revised plan was certainly carried out (the feus are indeed 170 ft. long and the extra 5 ft. has been taken up by pavements in front of the houses, the main street being, as he intended, 60 ft. wide), it was unfortunately another example of two-dimensional planning. The uneven levels give the town a far more vivid skyline than was intended; but they also destroyed the conception of the square. The public building was never erected, and the east side of the square finishes in a vague and unsatisfactory crest of hill. The main buildings are on the corner of the square and the main street —the Town Hall, the inevitable inn (Seafield Arms) and originally the Dowager's house. The preservation of the old church made a new one less imperative. The inn and public rooms were erected in 1822; the Cullen Hotel was described in the New Statistical Account as the only modern building deserving note, containing under its roof the ballroom, courtrooms and a circular council room.¹

The plan was orientated so that one axis led to the gates to Cullen House and the other led to the sea. In practice one of the back lanes of

¹ NSA Cullen, Banffshire, 328.
the Fochabers type got lost, and another (Reidhaven Street) has become a main street. The intermediate lanes are retained in places, and in others have become paths to back gardens. The first house (demolished when the railway viaduct was built) was put up in 1820. The railway came in 1886, and because of objections to its running between Cullen House and the town was taken in a broad sweep round the coast and carried on a viaduct between the new town and the Seatown. The result has been to add notably to the interest of the place, and the arches, spanning the main street, frame the view from both sides (Fig. 73, Pl. 387-395).\(^1\)

The large number of other villages can be summarised more briefly, and can best be studied by means of their plans (Figs. 81-89, Pl. 304-334). An interesting group in Banffshire is that at Keith (Fig. 70 for the group, Fig. 81 for the two principal villages). New Keith was the first planning venture by Lord Findlater, and it was added to the east side of Old Keith, clustering about the Auld Brig over the Isla. Lord Findlater was fortunate in having an almost level site on fairly high ground, and he laid it out in a rigid grid pattern of very narrow strips with a high percentage of road and access lane. The Old Keithers called it the cottar-town, but it grew to become the centre of the complex. It was begun in 1750 or so, and was intended for weavers who would also have a strip of land, and for small holders who received portions of the "lotted lands" to the east of the village.\(^2\) That it was successful is testified to by its position today as an important centre of the textile trade.

The new bridge was built in 1770.

An important marketing centre, it has a large market square towards

\(^1\) On Cullen, see Cramond, Annals of Cullen; additional notes given by Mr A.G.R.Mackenzie.

\(^2\) Although this date is given in the New Statistical Account and is generally accepted, the existence of a plan of Keith in 1767 in the Seafield Estates Office which shows the new road being laid out suggests this date may be too early. Another plan, by Peter Brown, 1817, shows the lotted lands in strips of about an acre, some being bigger - 4, 8 and 11 acres.
one end, which somehow failed to become the centre of the village - perhaps because the roads which would have made it a junction were never built in the right places. As it is, the north end links to the old town, and here are the parish church and the most important buildings; and the remainder are crowded along the unusually narrow Mid Street, which one suspects was not intended to have that importance. The square itself is dominated by the Roman Catholic church (1828), a situation which would surely not have been allowed to materialise if the square had gathered the importance it was intended to have. (Pl. 262.)

The feus were laid out fifteen yards in front and sixty yards from front to back, and this is generally the pattern still. Cross lanes are placed between every two houses and are lined with yards of excellent stone wall; so that Keith is very enclosed, urban and private. Inhabitants say that they are admirably placed for avoiding unwelcome neighbours who may be approaching along the street.¹

At about the same time (1750) the village of Newmill was founded about 1½ miles away on the other side of the Isla. It too was a weavers' village, but did not prosper so much, and remains today much as it was laid out - two main streets crossing in a square, and back streets on each side with common cross lanes between every two houses. Closer at hand, and indeed only just across the river from New Keith, is Fife Keith (Fig. 81). This was on the Earl of Fife's land (hence its name) and he founded it in 1817 as a rival to the prospering neighbour. It has a neat plan with a square arranged where the road to Dufftown forms a T-junction with the main road; and it has a similar feu unit to New Keith's. But it was not a commercial success, and by the 1840's

¹ In General, NSA Keith, Banffshire, 390.
the inhabitants were mostly dependent entirely on their crofts of land. At that time the relative populations give an idea of their success: New Keith had 1,805 people, Newmill 448, and Fife Keith 579.

That junction at Fife Keith leads to Dufftown, and there the Earl of Fife (James Duff: hence another name) was busy in the same year (1817) laying out another village (Fig. 32). Dufftown is a Highland village based on a rather crooked cross, with a square on one side of the main road very similar to the design for Fife Keith, and presumably by the same hand. Here again the slope of the site has taken away the obvious intention of the plan. Dufftown prospered principally on its abundance of distilleries.

There is another group of planned villages in Moray. Rothes was an old castletown, an untidy cluster of cottages at the lower end of the present Old Street. In 1766 the Earl of Findlater followed up his venture at Keith by recasting the village entirely, though on more modest lines than most of the others. Each tenement was given \( \frac{1}{3} \) acre, and the tenants of each had the option of renting also an acre or two of agricultural land. Many of the houses are single-storey, and were originally thatched. Archiestown was built on the moor of Ballintomb just west of the Spey by Sir Archibald Grant of Monymusk, and named after him. Established in 1760, it had the usual two main streets intersecting in a square, and back access lanes. It was intended to become a place of some importance, but suffered some setbacks and remains today a small and rather untidy village. In 1783 a fire partly destroyed the village; and it was not until the 19th century that it began to be reconstructed.

1 NSA Keith, 391.
2 Plan of the Lands of Rothes etc., 1764, by Peter May, Cullen Estate Office.
3 NSA Rothes, Moray, 230-231.
4 NSA Knockando, Moray, 77.
foundation of Aberlour on the other side of the Spey robbed it of much
of its expected importance.

Charlestown of Aberlour, the rival mentioned above, was begun in
1812 by Charles Grant of Wester Elchies. It was erected into a burgh of
barony. As a result of the "muckle spate" of 1829 that wrecked much of
Rothes it took in population from outside. A long narrow street, it
was mainly built up between 1830 and 1887.1

Grantown-on-Spey was founded in 1765 as a centre for agricultural
marketing and handicraft. As in the case of Rothes, a small castletown
had existed at Castle Grant; it had been a burgh of barony from 1694.
Grantown consists of a main street 56 ft. broad, with the usual two
subsidiary streets parallel to it. At the centre the High Street broadens
into a market square 700 ft. by 108 ft., which is punctuated by a double
row of trees. The houses are nearly all built of a fine-grained light
coloured granite; many of them are additions made during the nineteenth
century. Its main success has been as a holiday resort.2

Mention has already been made of the village of Urquhart in
relation to the practice of thatching. From its layout, a single
street with houses on each side and a T-junction at one end, Urquhart is
a good example of a simple agricultural settlement. At the time of the
New Statistical Account, it had a population of 160 with 12 tradesmen,
nearly all of whom also occupied crofts of land, "so that the whole
village may be said to be agricultural". From the evidence of the houses
themselves, it appears to have been laid out about the end of the 18th
century.3

1 Thomson, A Speyside Parish, 11; NSA Aberlour, Moray, 116.
2 Cf. Watson, J. & W., Morayshire Described, 311.
3 NSA Urquhart, Moray, 47.
Dallas, in the Highland part of Moray, was another example of an agricultural village and marketing centre. There was an original hamlet at Torecastle on the right bank of the Lossie, which was a barony. According to the writer in the New Statistical Account it was feued about 1799 by Sir Alexander Penrose Cuming who built thirty-two houses. Other sources give its date as 1811. Its plan is similar to that of most of the other small planned villages. At Elgin itself, two important suburbs were built. New Elgin was built to the south of the old town; Bishopmill, a series of parallel streets, was developed from an old cluster of buildings on the north side of the town on the site of the original bishops' mills. A Survey of the Lands of Bishops-milln made in 1760 for the Earl of Seafield suggests that he was considering development at that time. However the feu lots are still only sketched in a plan of 1801, and it was still being developed, according to a plan by George McWilliam, in 1823. Lhanbryd belonging to the Earl of Fife was entirely remodelled with uniform rows of cottages in 1854.

The district of Buchan witnessed the most concentrated establishment of new villages in the 18th century, nearly all of which were related to the agricultural improvements and to the founding of a local weaving industry. New Pitsligo was founded in 1787, and in 1790 its old name of Cavoch was changed. It was entirely a new foundation on a site which had previously had only two or three farm houses. By the 1840s its population had increased to over 1200. One reason for locating it there was the inexhaustible peat moss. Each feu had a few acres of arable land attached to it and some 90 inhabitants were employed in the manufacture of cotton and linen. The plan (Fig. 83) was considerably

1 NSA Dallas, Moray, 195-7; Douglas & Watson, The Lossie from Source to Sea, 35.

2 Plans in Seafield Estate Office, Cullen.

3 NSA Tyrie, 1724-5.
modified because of the nature of the site. Basically the village consists of two main streets, one nearly a mile long. In the centre some attempt was made to form three streets grouped around a large central market place. Here it is evident once again that the steep slope of the ground upset a formal plan that was designed on the flat; the market place is today no more than a derelict piece of waste ground. The tenements are normally about 170 ft. long and 41-50 ft. wide, and they are grouped in characteristic fashion, in pairs. The houses are all built of local granite, and as a result of the general lack of prosperity in the place, many retain roofs of straw thatch on divots (Pl. 312-321). The typical weaver's cottage (e.g. Pl. 315) consists of a house and a half, the smaller end part being the weaving shop.

Strichen, originally known as Mormond Village, was begun by Lord Strichen in 1764. It was a much more successful and architecturally satisfactory foundation. Again the characteristic houses were planned for weavers, with the extra room for the loom. It was a deliberate attempt to attract "tradesmen of all denominations, manufacturers and other industrious people". It consists of three streets with the tenements in pairs; and an unusual feature for a village of this size is that it has no square. This is presumably caused by its not being an agricultural village (cf. Fig. 84). The houses are some of the best in Buchan, and many of them (Pl. 322-327) have the characteristic North East corbelled dormers. New Leeds, not far away, was planned by Lord Strichen's son to be, as its name implies, a rival to its namesake in Yorkshire. The half-dozen houses left there testify to its success.

Stuartfield, originally known as New Criechie, was also founded

1 NSA Strichen, Aberdeenshire, 689, 692.
with a view to the establishment of a linen industry. At one time about 50 people were employed in their houses weaving linen yarn for Messrs Richards & Co. of Aberdeen.\(^1\) It is in plan (Fig. 85) one of the most perfect of the planned villages, its pairs of tenements set symmetrically round two crossing streets with back lanes. The square (Pl. 334) contains some extremely well-proportioned granite houses. Fetterangus (Fig. 86) was founded by Ferguson of Pitfour about 1780.\(^2\) A simple village of two crossing streets, inhabited today by a large percentage of tinkers, its main feature is a roughly circular "square" at the crossing of the streets.

Other villages in the vicinity include Longside, founded about 1800-1810, Mintlaw, about the same time, Maud, about 1865, and New Deer, remodelled from an older settlement about 1805. A particularly good example from near the north coast of Buchan is New Aberdour, erected in 1798. By 1831 it had acquired over 300 inhabitants.\(^3\) Very little change seems to have taken place since the time of its foundation, and its plan (Fig. 86) is therefore a perfect specimen of a simple street village. The main street is closed at one end by the church and at the other by a cross street faced with houses. The tenements are in identical pairs about 46 ft. wide and 14.7 ft. long, and the cross lanes between every two houses give access to the back streets. The Market Square occupies the equivalent of four tenements at the north end. On each side are strips of lotted lands. The houses are mainly of the house-and-a-half type, and are mostly harled and slated.

Another interesting group in Aberdeenshire is to the east of Turriff, and was the work of one of the pioneers of the improvements, Cumine of Auchry. The first two were planned both as industrial and

\(^1\) NSA Crichie, Aberdeenshire, 162.  
\(^2\) NSA Old Deer, Aberdeenshire, 150.  
\(^3\) NSA Aberdour, Aberdeenshire, 265.
agricultural villages and as a tidying-up of the estate surrounding Auchry House. Cuminestown is a right-angle with one long side lying to the south of Auchry House; it was begun in 1763. A linen manufacture was established in the village. It consists of unusually broad tenements about 70 ft. wide and only 120 ft. long arranged in pairs, and at two points the houses are set back to give a suggestion of a square. At the east end of the village, the road turns north past Auchry House and goes through the Garmond, founded shortly afterwards. This consists simply of scattered houses on both sides of a straight road; although its present dereliction gives no such impression, it was a carefully planned layout. Further on is New Byth, another derelict-looking collection of houses, which was begun in 1764. It is based on two streets nearly at right angles.¹

Other examples in Aberdeenshire include Rhynie and Lumsden near the Cabrach. Both have a square to one side of the main road. The former has houses scattered loosely on three sides, and a row of trees along the line of the road; the latter is more closely built up and trees have been planted all round the square. In Banffshire there is Aberchirder, commonly known as Foggieloan (Pl. 329-331). Cornhill is an example of a planned layout on a very small scale at a road crossing (Pl. 332, 333). Huntly has already been mentioned as an example of an old burgh largely recast in the 18th century.

A type all to itself is Ballater on Deeside which was founded about 1770 entirely to accommodate visitors to the Pananich Mineral Wells. Enjoying a mild climate at an elevated position on a site of considerable natural beauty, it was one of the earliest spas in the North of Scotland.

¹ NSA Monquhitter, Aberdeenshire, 765, 767. NSA King Edward, Aberdeenshire, 278.
It profited notably from the last increase in tourism under the influence of what is often called "Balmoralism", and is the railway terminus on the Deeside line from Aberdeen. Its layout is therefore rather different from that of the usual agricultural or industrial village. The houses are grouped round a large square 405 by 360 ft. with the church in the middle. The houses are mostly of reddish granite and are slated.

This does not exhaust the list of planned villages. Villages of essentially similar type, such as Hopeman and Macduff, were laid out as fishing settlements; these are more conveniently dealt with in the next chapter.

... . . . .

In general, the planned villages were a remarkable achievement. They seem to have been of three main types - agricultural, industrial (home industries) and tourist. The types are intermingled, and today it is often not clear which aspect predominates. Grantown-on-Spey, for example, is a tourist place of considerable attraction and rivals Ballater in that respect. In date, they appeared in three phases, the first from about 1750 to 1780, the second from then to the early years of the 19th century, and the third (a more spasmodic one) thereafter.

Their physical characteristics are worthy of note. In the first place they nearly all have an urban character, lent by the tight formal layout and the concentration along straight streets. In this it seems that they really follow the tradition of earlier settlements. There was, as has been pointed out, no real tradition of village layout in the North East before their time, no villages that a planner would at that time have considered worthy of emulation. In effect they are a derivation
from the mediaeval burghs. Influenced obviously by the Georgian planning of Edinburgh and other cities, their framework is nevertheless really a straightening-out and a formalising of the old plan of a High Street, rigs at right angles to it, the two back lanes or gaits, and the wynds leading from the High Street to them. But where the old burghs like Forres developed this form irregularly, the planned villages transformed it into a rigid system of standard units.

Their urban character is emphasised by the fact that subsequent to their foundation some have become burghs and others have remained hamlets; yet in both cases they seem adequately conceived and proper in scale. This is partly because one of the chief points in their planning was the capacity for expansion. None of the landowners concerned with them expected them to remain small; all were intended to become, eventually, major settlements. And it was often stressed that the layout should be capable of easy extension.

Hence, it seems, the ordinary standard plan of main street, square and back streets. There was no difficulty in expanding this system almost indefinitely by adding more main streets behind the back streets along parallel axes. Alternatively the back street could become a main street and more lands be added. The various villages considered show various stages in this development. They were severely functional and one of the ways in which they express that function is in the emphasis given to the Square. It was essentially a market place, and usually larger than a village of that size would have required if it did not expand. Where the village was not of an agricultural or marketing type, the square is either absent or merely residual, as in the case of Cuminestown and Garmond. Another characteristic of the villages is the inability of their planners to think in terms of contours. Although
this is common in larger scale planning in the 18th century, it was particularly disastrous in small places where a steep slope could completely destroy the conception of the centre of the place. It seems clear that they were all designed on the flat and corrected a bit on the site, but never sufficiently. Many examples of this have already been cited; perhaps the best is the fishing village of Macduff, where the main square is on a slope so inaccessible that the road through it is forced to turn into a track with steps and appear again on the other side of the hill.

In order to see what the villages have in common and whether there was any standard dimensioning, the plan of comparative villages (Fig. 90) with main dimensions noted has been drawn. As far as I can see, there was no fixed system of dimensioning other than dividing the land into convenient areas for feuing tenements; and these are by no means standard or whole fractions of acres. But there is a rough similarity between the sizes of tenements, most of which are in round numbers of yards per side. A width of 15, 16 or 17 yards was common. The length was more variable, no doubt according to the land available and the requirements of the tenants. 56, 60 or 75 yards seems to have been usual. The size of the squares is not at all standard.

What is interesting in this respect is the mark of the estate responsible for the planning in the actual type of plan. The Duke of Gordon's surveyors (particularly Thomas Milne) seem to have favoured exactly square squares, as at Tomintoul and Forshabers, and a symmetrical plan of streets round them. They also used a unit of seven tenements together as a block, before laying out a cross street; and then it was a street of some width. Their main streets were not as wide as those of
some other estates, being not more than 40 ft. in width.

On the other hand, the Earl of Fife favoured squares that were nearly square, but were placed at one side of the main road (Fife, Keith and Dufftown). He was prepared to have almost any number of tenements together without cross roads, and liked his streets to be wide, 50-60 ft. He does not seem to have bothered about back streets. The Earl of Seafield (or Findlater) had a liking for long squares (Keith and Cullen), met by more than one road. The early example, Keith, had fairly narrow streets; the later one, Cullen, as modified by McWilliam, had a main street of 60 ft. But the main feature of his village at Keith is shared by nearly all the village planners in Buchan - the system of grouping tenements in pairs, separated by a cross lane, and bounded by two back streets parallel to the main street. This was the plan favoured by Sir John Sinclair. He referred to the pioneer efforts of Lord Findlater, and it may be to him that the credit is due; but Cumine of Auchry was working on the same system at much the same time. It was very convenient for access to gardens and plots; and if the village were to expand, gave quick access to any part of the perimeter. The main advantage seems to have been in the ease which these lanes afforded to the moving of livestock without obstructing the roads.

Despite these differences, the planned villages have much in common in their clarity and simplicity. The movement has left in such places as Fochabers some of the finest urban groupings in the region. Fochabers can teach many lessons for the future: not least in the way a County Council can ruin a beautiful square by the erection in its middle of the most miserable public lavatories.
Chapter 8

The fisher villages and fisher houses

The fortunes of the fishing industry have been outlined in Part I (Chapter 8). The periods of prosperity in the fisher villages, the times of greatest expansion in population, have been noted. And the strong contrast which they afford to the landward villages has been emphasised in Chapter 13 of that Part. The fisher villages have always been regarded as the homes of communities quite different in manners and customs from their inland neighbours; they are some of the most self-contained communities in the country. Nevertheless certain aspects of the villages have inevitably much in common with inland examples. The basic form of the cottages (but-and-ben) is the same; and the same materials have been available for their construction. These aspects of the houses have, therefore, been dealt with already in relation to the rural buildings, and it is not proposed to repeat information on constructional matters in this chapter. It is devoted firstly to the general distribution of the villages, secondly to the peculiarities of their layout, and thirdly to the peculiarities of the houses.

The origins of most of the fisher villages are rather obscure. There are many references to fishing in mediaeval times, and the burghs situated on the coast, such as Banff, Portsoy, Aberdeen, Fraserburgh, were involved in the industry. But the majority of the small villages seem to have been of later origin. At first the fishermen seem to have been crofters, and the older settlements have often cultivated plots.
There is little evidence about the nature of their activities before
the 18th century. In its early years a considerable number of the
present fishing villages were settled, and by the end (to judge from
comments in the Old Statistical Account) they were clearly self-contained
and separate from the rest of the parish. The very lack of interest
shown by many of the ministers who wrote the account indicates that
separation. Probably many were settlements of squatters on useless
land; many of the villages are situated on the low raised beaches beneath
cliffs in places almost inaccessible from inland; the cliffs provided
shelter and the boats could be dragged ashore. For until the beginning
of the 19th century harbours in the fishing villages were the exception
rather than the rule.

The main period of expansion was in the 19th century when the
herring fishing became a highly prosperous undertaking. And in the
20th century there has been a change in the importance of the villages
related to their convenience for supplying markets much further afield
than previously; the bigger centres have increased and the smaller
remoter ones have conspicuously declined. It is not a simple matter,
therefore, to account for their distribution. Working round the coast
from south to north, there is a concentration of small villages between
Stonehaven and Aberdeen (settlements of crofter-fishermen now largely
dormitory villages for Aberdeen); then Aberdeen itself and Peterhead
to the north were ports on a large scale, with a small and scattered
number of villages between them; there is a gap due to the nature of the
coastline of shifting sand that destroyed Rattray until Fraserburgh and
its small neighbours are reached. Along the north coast the villages are much more concentrated. The first group after leaving Rosehearty is huddled beneath the high cliffs; the next group on the Banffshire coast is closely spaced on wider beaches. Then in Moray the villages are further apart except for a group between Branderburgh and Burghead; and the main ones are at the mouths of the principal rivers.

This distribution, arising from foundations made at a time when local markets were more important than the present ones, is due almost entirely to the nature of the coastline. There seems to have been no lack of people ready to settle in villages in the 18th century, often moving east and south from Caithness and Sutherland; and the villages were placed within reach of the fishing grounds of the Moray Firth at convenient places for the shelter of boats. The most concentrated groups are where raised beaches made a settlement easy, or where a village could be built on high ground close to a natural cove eroded by the sea; in the latter cases the harbour was built later, and access is had to it down steep curving lanes. Cullen is an example of a seatown on a low raised beach; Portknockie is an example of one high above its natural harbour.

The layout of fisher villages is quite varied. The first point to be emphasised is that they do not divide neatly into unplanned examples and planned ones. Probably the majority are in fact planned villages, but they are not planned in the sense in which, say, Tomintoul was planned. When a settlement was made on the land of a proprietor, such as those between Portgordon and Cullen in Banffshire, it was made in orderly fashion with his approval. The usual arrangement was for him
to provide the hull of a boat, renewed every seven or so years, and lease both the boat and a plot of ground to the fisherman. The fishermen were responsible for the building of their own houses, merely paying the duty on the land on which they stood. There was therefore no set street pattern or row of surveyors' houses; but the dividing of ground to make lots did give a regularity to the pattern of the village. And the fact that the plots need only be small (this often being essential in places where the sheltered spaces were limited) gave a tight, dense form to the layout.

Thus what might be regarded as the unplanned villages, with irregular streets and wedges of packed houses, are really the result of planning at one remove. The real distinction is this: that whereas the inland planned villages are a layout essentially of streets, the fisher villages are a layout of houses, or building plots. Indeed in most of them streets were not considered of any importance at all. In the older settlements, streets were simply spaces between groups of houses to allow access in many directions; there was no need in a village that did not form part of a highway to make special allowance for transport. It was only towards the end of the 19th century, and in some cases later, that roads were constructed along certain lines and gave a definite emphasis to the plan of the village. Until then there were strips of causey-stones in front of the houses and a mud track for the rest.

If this was the nature of most of the villages, there was nevertheless a move in the direction of planning villages on exactly the same terms as the inland ones during the 19th and 19th centuries. These, like Macduff, and Rosehearty, were true street layouts and can
properly be classed as planned villages. Another group was the old burghs, like Banff, Fraserburgh and Peterhead, which were extended with planned improvements as Huntly was inland. And then there were special examples of planning for fishermen, like the village of Footdee in Aberdeen.

Buckie in Banffshire shows the two sides of the coin. The fifty foot contour line at the cliff of a raised beach, effectively divides the old and new town. Down below is the Yardie, the close-packed rows of cottages with gables facing the sea; up above is a typical rectangular plan of main streets and back streets meeting in a large square.

Several of the fisher villages are illustrated both in plans and photographs (Figs. 92-98 and Pl. 335-451). Fig. 91 shows the distribution of the villages along the coast. It will be seen that a considerable number of houses is illustrated, not all of which will be referred to in the text. They form a pictorial survey of the more interesting examples, and are grouped along the coast from south to north and west. The following comments on examples are ordered according to the type of place rather than the position. First, the old burghs.

Portsoy (Fig. 68, Pl. 377-381) is an example of an old burgh which was primarily a commercial port. Its form is that of the typical burgh, but to the east of the harbour is the fisher town, with a contrasting layout of fisher houses with their gables facing the sea. The principal coastal burghs all tend to show this contrast of burgh layout and seatown. Stonehaven became effectively the county town for Kincardineshire when the county courts were moved there in 1660; there
the old town is beside the harbour, and the new town was built by Barclay of Ure at the beginning of the 19th century, laid out with broad streets and a regular square in the middle.¹

Peterhead tells a similar story on a bigger scale. Originally a fisher town connected with the Abbey of Deer, it became a burgh of barony in 1587; it was a convenient place to make a harbour for the surrounding districts. The land was feued and the normal provisions for markets and trade were made. But in the 17th century Peterhead became known as a spa and watering place, and this function continued until the 1840's. During the 18th century, between about 1765 and 1795, the town expanded greatly and most of the old burgh houses, with their gables to the road and their peat stacks in front of the door, were replaced by Georgian dwellings, substantial houses carried out in the red granite of the district. Again the early 19th century extensions were made. All this was connected with the development of the place as a port and fishing centre; as the spa declined, the herring industry, at its height during the 19th century, made Peterhead one of the main fishing ports in Scotland. The original harbour had been built in 1593. Then the whole extension of the town was related to the developments about Keith Inch. In 1773 Smeaton carried out the South Harbour; Rennie worked on the new North Harbour between 1799 and 1813; and Telford was concerned with vast extensions, interrupted by disasters, from 1815 to 1822. Thus Peterhead is a pattern book of period layouts. There is the old irregular fisher town near the harbours, and the 18th century regular layout further inland; and the two are joined together and considerably modified by the old burgh layout around the market place. A special character is given to the town by the smartness

¹ Robertson, G., General View ... of Kincardine, 198.
of the Georgian designs for red granite houses. The fronts are mainly ashlar pick-dressed; others are axe-dressed. The Town House was built in 1788.

Fraserburgh is another burgh foundation. It was originally called Philorth or "Faithlie", and the original town and harbour were built by the Frasers of Philorth (hence the name of Fraserburgh) in the 16th century. It was a free burgh of barony in 1546, and this charter was confirmed in 1588 when Fraser "began to built a larger and beautiful town at Faithlie" and improved the harbour. In 1592 it was created a burgh of regality, and this was confirmed in 1601, when it was called Fraserburgh and given permission to have a university. The university seems to have collapsed without a trace. In 1670 the Frasers succeeded to the barony of Saltoun.

Fraserburgh therefore has its 16th century core. But again in the 18th century it was expanded, and in the first thirty years of the 19th century it became a key centre for the herring industry. Telford was associated with the building of the enlarged harbour after 1807. Once one leaves the huddle of old houses round the harbour, one enters the formal layout of the new town, which was begun about 1815, with the usual scheme of a central square and parallel streets. In some respects the use of the houses is unusual, for in the busy days of the late 19th century, Fraserburgh was a place with a large migrating population - of fisher families moving there for the herring season, employed in the gutting and curing of the herring. The "Great Summer Herring Fishing" opened there and in Peterhead in late June, seven or

eight hundred boats congregating there; and the population was doubled in July and August. Fishermen, gutting girls, salesmen, curers, runners, agents for coal, salt, hoops, stayes, welfare workers, all gathered; one writer records seeing fourteen men and women talking and singing all night at weekends in a little lean-to wash-house because there was no room to lie down.¹

The small villages have a simpler history, being settlements wholly for fishing, founded on sites convenient for drawing up boats and in the first instance without harbours. This lack of harbours, unless added later, is the immediate difference between them and the older burghs. Excellent examples exist south of Aberdeen on the Kincardineshire coast—tiny and once busy settlements dotted along the cliff top of the old red sandstone conglomerate. Paths lead down to the bays below; and these have often now become roads of considerable steepness. They were settlements of crofter-fishermen in many cases, and because of their decline recently, except for the seasonal activity of salmon fishing, have sometimes retained the old form of the houses (Pl. 335-345). Burnbanks (Fig. 92, Pl. 337-341) is a small layout roughly grouped in a square; thatched cottages (straw and clay thatch) belonged to crofters. At Altens nearby is a short row of thatched cottages (Pl. 343) which was once known as a fishing settlement. Others are more fully developed close to the sea, and used to send a good deal of fish to Aberdeen, the fishwives walking considerable distances to sell their wares. Such are Portlethen and Skateraw (Fig. 92, Pl. 344); the houses are arranged in rough rows with small gardens above the coves. Others were Cove Bay (Pl. 345 shows one of the 19th century cottages built there with Gothic

¹ In general, NSA Fraserburgh, Aberdeenshire, 249-256.
Tocher, J.F. (ed.), Book of Buchan, Sect. V, Ch. VI.
Leatham, J., Fisher Folk of the North East, 67, 81.
windows) and Findon, the home of the famous "Finnan haddies". All of these are now in decline, but serve a function as dormitories for Aberdeen.

North of Aberdeen is another group of scattered villages, such as Colieston and Slains, irregularly laid out and without much architectural distinction. Bullers of Buchan, Ward of Cruden, and Whinnyfold are all small settlements near convenient coves. Ward of Cruden had its name changed to Port Erroll by the Earl of Erroll in 1875, when he constructed a harbour there.¹ Newburgh is more of a seaport than a fishing village; it stands alongside a creek of the river Ythan, and vessels could be taken up the river as far as the village. A considerable traffic in coal, corn, lime and bone-dust used to be carried on.²

Some of the best examples of the small and "unplanned" fishing villages occur north of Peterhead and on both sides of Fraserburgh, functioning now partly as dormitories for the latter town. Rattray was a burgh which was engulfed by a change of the coastline, and has now disappeared. But just across Fraserburgh Bay on the east are the joined villages of Inverallochy and Cairnbulg, and about a mile and a half to the south of them is the village of St Combs. The latter has a little offshoot attached to its north end - the village of Charlestown. All these have much in common, and the plan of Inverallochy and Cairnbulg (Fig. 94) illustrates the peculiarities of the layout (see also the aerial view, Pl. 350). They are villages without harbours, the boats being in former times drawn up on the shore. The streets are still for the most part untarred (Pl. 351-356), and are simply passing ways between

¹ Pratt, J.B., Buchan, 35.
² Pratt, J.B., Buchan, 453.
the irregular rows of cottages. The cottages themselves are closely packed with their gables facing the sea in fascinating serried rows, the most irregular being nearest the sea (older ones) and the more regular further inland. This layout has a firm functional basis. The orientation of the gables is designed to give the maximum shelter to the doors and windows, so that spray and storms could break upon the gable. The small spaces between the houses are in some cases the minimum necessary to allow the building to be maintained and repaired; this was usually a condition of the feu. But also these spaces were used to lay down the boats in times of storms. It would have been fatal to leave them on the shore, and they were normally carried up to the lanes between the houses and firmly held down until the storm abated. These narrow lanes, again, do not form through streets; the next row of houses is usually spaced so that the lanes are constantly staggered. This prevents the accident of wind tunnels between houses and gives considerably greater shelter to the houses furthest away from the sea. The houses, of which more will be said later, are built of great boulders of local stone, sneck pointed (see illustrations) and the majority of the roofs are pantiled. But they are nearly all covered in cement in a succession of desperate attempts to keep the water from infiltrating into the houses. The houses have a particular feature in the provision of a small window usually in the gable end. This not only helped to identify the houses from the inland end, but also was the place where a lamp was lit on the seaward gable; the mass of such lights acting as a guide to the fishermen at sea during the night. The villages are very self-contained. For many years in the 19th century there was
discussion of the need to provide a harbour; but because the inhabitants of the two halves of the place, which are only separated by a tiny stream, would not agree to the placing of it in the other half of the village, the scheme eventually was given up, and the fishers had the satisfaction of seeing their neighbours thwarted at disastrous cost to themselves.

The quickest way to Fraserburgh was across the sands of the bay. Fisherfolk going to church in Fraserburgh used to walk there barefoot and put their shoes on on the church steps. During the great summer herring season, the villages were often nearly deserted.¹

On the west side of Fraserburgh, and similarly joined together, are the villages of Pittulie and Sandhaven. (Pl. 357-359.) Laid out in the same basic manner close to the shore, their houses have excellent stone walls of large irregular blocks laid without courses and the same kind of cement-covered pantile roofs. Rosehearty is a 17th century burgh of barony, which had a harbour in the early 18th century and was replanned on formal lines shortly afterwards. Further west, near the border of Aberdeenshire and Banffshire, is Pennan on the estate of Auchmeddan. It is with one possible exception the most inaccessible fishertown in the region, huddling under the two hundred foot high red sandstone conglomerate cliffs and quite invisible from inland. Only one winding and steep road leads down to the village, so close above the houses that it is almost possible to throw stones down their chimneys. The village consists of short rows of two or three houses with their gables to the sea, built right into the cliffs on a narrow raised beach (Pl. 360-362). At high tides they are sometimes

¹ NSA Rathen, Aberdeenshire, 296.
NSA Lormoy, Aberdeenshire, 225.
Pratt, J.B., Buchan, 233-234.
flooded, but some protection is given by the rows of huts for gear nearest to the water's edge. A harbour was built in 1799, but fell into ruins and provided stones for some of the houses; the present pier was constructed in 1845.¹ The houses are characterised by the red sandstone of the cliffs from which they seem to have been dug; most are harled and are either tiled or slated. Pennan is wholly in decline, and is now the home of an undue proportion of old people.

At this point it is convenient to bypass the Banffshire villages, which are mainly part of an 18th century development, and notice some of the Moray settlements of the same plan type as those just described.

Findhorn (Fig. 93 and Pl. 437-451) has a long and turbulent history. Situated on the east of the estuary of the river Findhorn, it was a seaport in the Middle Ages, connected with Kinloss and Forres; a considerable trade in grain and wines was carried on from there, particularly with Holland and Flanders. It is in fact the third village of Findhorn, the other two having been swallowed in much the same circumstances that destroyed Culbin and left its famous sandhills. The first was two miles west of the present site and was destroyed when the river changed its course between 1670 and 1690. The second was one mile west of the present one, and was submerged by an inundation in 1701. The harbour was built in 1778 and enlarged in 1838.² Findhorn is therefore primarily a port, but fishing has for a long time been carried on from there. The village is laid out in the traditional way, with gables all facing the bay; two straggling roads, one along the front and the other roughly in the middle of the town, give it some shape. It retains a larger proportion of the old thatched houses than any other

¹ Pratt, J.B., Buchan, 314.
² Watson, J. & W., Morayshire Described, 280-283.
seatown in the region; they are thatched with straw and clay and ridged with turf. A fairly comprehensive record of these houses was made and is included in the illustrations. The fishing village at Lossiemouth, as contrasted with the later, planned layout of Branderburgh, has a normal fisher layout, and some excellent examples of "sheddies", or wash-houses and stores, set between the houses (Pl. 430-434).

The fisher villages of the Banffshire coast are many of them early 18th century settlements of the semi-planned type. They are all singularly picturesque. To the east, sheltered in Gamrie Bay, are Gardenstown and Crovie. The bay is sheltered by two high headlands, and despite the steepness of the cliffs, was a promising place for landing. Gardenstown was founded by Alexander of Troup in 1720, as part of the improvements he was carrying out on his estate.¹ Crovie is supposed to have been settled at about the same time. In the former, the houses are built right up the steep hill, and the roads wind down to the shore and harbour. The traditional orientation of the houses is observed, so that long flights of steps mount the hill and give access to those furthest from the sea (Pl. 366-369). The result is to make Gardenstown an attractive resort for artists and tourists. It was not always so smart. Hugh Miller described it as "a steep bulwark in front, against which the tide lashes twice every twenty-four hours,- an abrupt hill behind,- a few rows of squalid cottages built of red sandstone, much wasted by the keen sea-winds, - a wilderness of dinghills and ruinous pig-styes, - women seated at the doors, employed in baiting lines or mounting nets, - groups of men lounging lazily at some gable-end fronting

¹ Pratt, J.B., Buchan, 325-326.
NSA Gamrie, Banffshire, 291.
the sea, - herds of ragged children playing in the lanes, - such are the components of the fishing village of Gardenstone."1 Crovie is separated from it only by a path at the foot of the red sandstone cliffs, which is impassable in bad weather. It is a tiny settlement of about fifty houses, reached normally by a road as steep as Pennan's (Pl. 363-365). The only access from this road to any of the houses is along a causeway in front of them, which is also a sea wall. The houses, stone and pantiled and heavily cemented, are thus frequently drenched with water; and when a storm is raging it is impossible to walk along this causeway. In the great gale of January 1953 only the chimney pots could be seen as the waves swept over the village; one house and several huts were completely destroyed. The causeway, which until recently was the responsibility of the householders, was partially broken. This was virtually a death-blow to the village, which was already in serious decline; over a third of the people are old-age pensioners.

Between Banff and the mouth of the Spey the fisher villages are closely packed. Their common and memorable feature - the vivid use of colour - will be discussed at the end of this chapter. Their layout is irregular but fairly similar from place to place. From west to east, Portgordon was founded in 1797 by the Duke of Gordon (its harbour dates from 1874). Buckie is in three parts, of which the first two belong to this section; Wester Buckie (also known as Nether Buckie) was settled about 1650, and in 1723 was expanded to the east (Easter Buckie) when a fishing boat and crew belonging to the Duke of Gordon settled there. The new town came later. Portessie became a fishing station in 1727, when five houses were built there by Hay of Rannes for the accommodation

1 Miller, Hugh, Rambles of a Geologist (1847), 247.
of the first fishermen, who came from Findhorn. Findochty was settled in 1716 by fishermen from Fraserburgh. Portknockie is said to have started in 1677, the first settlers having come from Old Cullen. This date was deduced from the recollections of an old woman at the time of the Old Statistical Account, who knew her father built the first house there in the same year as the house of Farskane nearby was built.\(^1\)

Cullen Seatown was certainly there in 1655,\(^2\) and was in much the same form as it is now at the time of the building of New Cullen in 1820. Sandend, a small and isolated village, is probably of early 18th century date; by the middle of the 19th century it had some 300 inhabitants. Whitehills, near Banff is one of the most thriving fishing centres on the coast.

In all cases the harbours were built later than the first houses. Thus in Buckpool (the "Yardie"), the first harbour was a wooden one built in 1843, and shortly afterwards washed away. The present harbour was built in 1855. This is now disused, having been superseded by the much larger Cluny Harbour in Buckie, 1880. Portknockie harbour was opened in 1890, Cullen harbour was built by Telford in 1817, Sendend harbour was built in 1893. The layout is thus influenced by, but not determined by, the harbour; and its essentials is no different from that of the villages already mentioned. Buckpool has houses closely packed with their gables to the sea and a typical fisher layout of rows with alleyways between in the Seatown (Pl. 421, 425, 426). Portessie is in two parts - Peterhythe and Rottenslough - the former laid out parallel to the sea, the latter in the traditional manner. It was the

\(^1\) General: NSA Rathven, Banffshire, 261; Hutcheson, Days of Yore, 16, 17.

\(^2\) Cramond, W., Annals of Cullen, 45.
first part; a plan of Rathven parish by George McWilliam in 1825 shows Peterhythe as a proposed extension.¹

Findochty was very small in 1766² and its nucleus was irregularly built around the bay. By 1873 its harbour had been made, and more formal rows of houses (Siller Street and New Street) had been built to the east.³ Portknockie was earlier developed. Its plan (Fig. 95) shows the old irregular cluster of houses on the top of the cliff and the development to east and south carried out in the first years of the 19th century by the Seafield Estates. This is more orderly, and is a grid layout without much attention to the streets. Cullen's houses all huddle side by side with their gables to the sea. Sandend is similar, and retains its primitive form of drainage, channels cut in the paving stones that allow waste and rain water to run down to the harbour. Whitehills ranges round the bay; here a big extension took place about 1819, so that the new part, designed by George McWilliam⁴ with a tight street pattern of parallel roads and cross lanes, contrasts with the older houses along the shore.

This really forms part of the village planning movement.

Following the establishment of the early 18th century semi-planned fisher towns, there was a movement, wholly related to the planning described in the last chapter, to reconstitute or found from nothing fisher villages of a methodical and orderly kind. The commonest development was the addition, slightly inland, of a planned layout to the old gables-to-the-sea layout; and some examples of this have already been mentioned. Even in Cullen, where an entirely new burgh was built, no change was made to the

¹ Seafield Estates Office, Cullen.
² Plan of Findochty and Portknockie Lands, 1766.
³ Plan by George McWilliam, 1833.
⁴ Plan of Whitehills by George McWilliam, 1819} Seafield Estates Office.
In other places a completely new fisher town was erected. Macduff, on the other side of the Deveron from Banff, started as a small fishing village called Doune or Down. In 1733, however, it was bought by James Duff, second Earl of Fife; and he proceeded to foster its prosperity. It seems to have remained small for a few years; by 1761 there were only about 300 people living there. He built a harbour, and in 1783 obtained for the place a charter from George III making it a "free and independent burgh of barony". At the same time its name was changed to Macduff. The harbour diverted a considerable amount of trade from Banff; it is much better situated and does not silt up in the same way as happens to Banff. The harbour was much enlarged in 1877, and is one of the best on the Moray Firth coast. Still a major centre of the fishing industry, of local trade, and of tourism, Macduff is a thriving town which has not ceased to grow since its foundation.

Its layout follows from this history. Although the date of its purchase by the Earl is commonly given as that of the main layout, it seems more probably that the first period of development saw the typical fisher houses along the harbour and on the Low Shore and High Shore (Pl. 372, 373). The main part of the town is laid out like the planned villages, with a rectangular pattern of streets and a central square; this layout can probably be attributed to about the date of its erection as a burgh (1783) or shortly afterwards. What is particularly interesting is the way in which this intended layout broke down. The site is very steep and quite unsuited for such a plan. The parallel streets have in fact twisted away from their true lines, while remaining very steep;

1 Donaldson, J., General View ... of Banffshire, 7.
NSA Gamrie, Banffshire, 291.
Groome, F., Ordnance Gazetteer (Macduff).
and the square (still called the square) is a partly developed side of a hill, crossed by a footpath where it was impracticable to continue the intended main street. Macduff is an example of purely two-dimensional planning, and its considerable charm is partly the result of the failure of that plan.

Buckie had an entirely new town added to its old seatown and "Yardie". A copy of a plan made in 1780 for the new layout is kept in the Burgh Office (Fig. 97); but it seems that most of the building (cf. Fig. 98) was carried out in the early part of the 19th century. Here the formal plan is laid right across the fifty foot cliff, so that many of the cross streets are interrupted and the northern back street becomes the shore road down beside the harbour. It is worth note that at the same time as most of the formal town was being built, most of the tightly packed Yardie (Pl. 425, 426) was also being built. In 1823 there were only three houses there; the others were all built within the next few decades. The introduction of formal planning therefore did not prevent the continuance of the older system.

In Moray there was considerable activity in the early years of the 19th century. The old Seatown of Lossiemouth has already been noticed. In 1698 the Town of Elgin feued land near the mouth of the river, built a harbour and made the streets and large market square that adjoin the Seatown. (This part is now much decayed.) The new part of the town, known as Branderburgh, was begun by Colonel Brander of Pitgaveny in 1830, when he erected a house for himself near the harbour. The Branderburgh harbour was built about 1837. The plan of Branderburgh was prepared by George McWilliam, and consists of a number

1 Hutcheson, G., Days of Yore, 63.
of streets at right angles and a large square. To the north and west of the square the inhabitants were at first mainly fishermen. The houses were nearly all two-storey with storm windows, and were at the time counted as the best on the Moray Firth.\(^1\)

Along the coast to the west is Hopeman, which was begun on entirely formal lines in 1805 by William Young of Burghead. It expanded in the middle of the century, when new harbours were built (1837, 1865).\(^2\) It was not a particularly successful village, but its layout was kept true to the rectangular grid of its original conception. The immediate neighbourhood contains other planned villages of partly inland occupations. New Duffus was built about this time, and Cummingston (Port Cumming) also; it is simply a line of houses on both sides of the road to Burghead, comparable to Garmond, and situated within easy reach of the sandstone quarries.

**Burghead** is an ancient settlement which was completely recast at the beginning of the 19th century. In 1795 it was bought by Sir Archibald Dunbar of Thunderton, and in 1805 he and seven others\(^3\) took over the old town and harbour, swept away the old fisher houses and huts, and laid out the town on a regular grid. The spine of this is the main road, leading straight up to the point at the tip of Burghead Bay. A new harbour was begun in 1807, under the control of Telford; subsequent extensions in 1832, 1835 and 1858 testify to the growth of the port.\(^4\) It had a considerable import and export trade, but its main activity was fishing, and it reaped the benefits of the boom in herring fishing shortly

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\(^1\) Watson, J. & W., Morayshire Described, 297-300.
NSA Drainie, Morayshire, 154, 156.

NSA Duffus, Morayshire, 40.

\(^3\) Including the founders of Hopeman and Branderburgh, and the Duke of Gordon and the Earl of Seafield - all proprietors of planned villages.

\(^4\) Watson, op. cit., 283-293; NSA Duffus, Morayshire, 37, 38, 40.
after its rebuilding. During this century it has declined rapidly, like many of the fishing ports, after the collapse of the herring markets at the time of the first World War. Most of its importance has been taken over by Lossiemouth.

On the Aberdeenshire coast, two examples of planning at this period were **Boddam**, built mainly in the early years of the 19th century and expanded at the time of the erection of its harbour in 1845, and **Burnhaven**, erected by George Mudie of Meethill near the mouth of the Burn of Invernettie shortly before 1840.¹

Specially notable was an exercise in planning carried out by the Town Council of Aberdeen at the mouth of the Dee. **Footdee** (or "Futtie", as it is and should be called) was a fishing village, reputedly settled originally by Danes or Swedes, in quite early times. It is mentioned by Gordon of Rothiemay in the 17th century. About 1819 the Council determined to rebuild the village. The fishers were made to "occupy a village consisting of two squares of houses .... immediately adjacent to the entrance of the harbour. The magistrates designed to have made the houses of two stories, but the fishers refused to live upstairs, and they also refused to have other than an earthen floor in their houses. In both of these, though there may have been some superstition and a good deal of prejudice, there was also some reason - for it would have been next to impossible for them to have kept a wooden floor clean, while an earthen one, if not clean, at any rate does not show the dirt so much, and it would have been very inconvenient for them to lug their long lines and their heavy baskets upstairs. On the whole, their houses are as clean and comfortable as the nature of their

¹ NSA Peterhead, Aberdeenshire, 378-381.
occupation will admit of."  

The ground was levelled, and sixty-eight houses were built, forming two squares (North Square and South Square), with Middle Row in the centre of the latter (Fig. 96). The houses were of the two-room, but-and-ben type, with box-beds forming the dividing wall. A few years later, certainly after 1839, Pilot Square was added, to accommodate the harbour pilots. These houses were more elaborate, having an upstairs flat and a back window. Further additions were New Pier Road in 1870 (six houses with three rooms each), and a large tenement on Pocra Quay (1879), with accommodation for eighteen tenants.  

In 1880 the houses were sold by the council, and were bought mainly by the occupiers on an instalment system; they fetched unexpectedly high prices.  

Footdee is a highly self-contained community of very independent people; and this is almost symbolised by the way the squares are arranged, facing inwards like quadrangles. The first two squares are about 230 ft. by 196 ft. The backs of the houses face either the sea or the traffic road; and bollards prevent vehicles entering the paved paths in front of the houses (Pl. 34.7-349). The houses are no longer uniform, additions having been made since they were bought up; but their grey and yellowish granite gives some unity. Some are tall, some long and low, and chimneys climb up the sides of the high ones from their subdued neighbours. Some are harled, and there is a good deal of white pointing and painted white joint lines; these are often artificial, painted across large stones to give an impression of small ones; white numbers on a red background occasionally mark out the houses.  

1 NSA Aberdeen (1839), 73-4.  
2 Mackenzie, H., City of Aberdeen (Third Statistical Account), 479-491; this contains a useful study of the community at Footdee.
Inside the squares, and facing the houses across the paved walks, are irregular rows of little huts - the stores and washhouses of the fisherfolk. They are of every shape and size, of wood, brick, stone or something hidden by whitewash; and they are painted red, green, black, scarlet or battleship blue and lined with white. They lean in every direction; they have roofs of wood, felt, iron, slate or tiles, and sprout all makes and shapes of chimneys, funnels and vents. In front are neat, narrow gardens, fenced with pointed rails, often green tipped with white. The windows of the "hutties" sometimes have looped curtains, and there are porches and miniature loggias against the doors, and seats in front. Stuck on are model ships and plaster soldiers, and there are weather vanes of aeroplanes and little stiff-armed men. The Mission Hall occupies the centre of the North Square, and is very serious amidst all this gaiety.

These huts are of the greatest importance to the fisherfolk. Not only are they essential for storage, but they also fulfil a need that seems to be common among the fishers - their passion for cleanliness in the house. It is well known that a fisher woman may polish up her house, shut it tightly that it may be kept absolutely clean, and move the whole family into the hut for the summer months. This is not peculiar to Footdee. The hut therefore becomes a working home, and its little garden is the house garden, gay with vivid washing. It is at least in part the neglect of the need for huts for storage that has destroyed the character of the fisher village where the county councils have been building within the last ten years. Footdee is especially interesting from a planning point of view because it satisfies many of the contemporary needs - the separation of traffic, the provision of
open space, the fostering of a community spirit, and the creation of an architectural character that expresses its function and allows for great variety and freedom within a planned and easily comprehensible pattern.

Finally, the houses of the fisher people. The general story of development in house types is not unlike that for the inland cottages: from an early 18th century simple and primitive dwelling, through the improved ones on the same pattern as the industry began to expand, to the spacious homes of the end of the 19th century when the herring boom was at its height. Apart from their layout, the special feature that distinguishes them from farm cottages is the provision of storage; and this was developed to make a type of house that was exclusively suitable for fishermen. The materials and constructional techniques are essentially the same as those of the farm cottages.

The earliest houses on record were thatched, and consisted of four stone walls with a partition of box-beds, which in fisher villages are always known as "bun'-in beds". They were low, narrow and smoke-grimed, the walls rough and often unplastered. The floor was of bare earth, by far the most practical when lines were being baited. Usually they were sloped so that the water could run out of the front door and down to the sea.

George Hutcheson gives a description based on memories of the old houses related to him by fishermen in Buckie. "A reason for the higgledy-piggledy order in which the houses in Buckie were built ... was
because the houses being all thatched with straw shelter was of much importance to prevent the thatching being carried away during a storm. When a gale arose oars and spars were laid on the roof and tied down with ropes. The inside of the houses would have been a curious sight to modern eyes. The light entered through small windows or holes, which had a wooden shutter instead of glass, and in cold weather the shutters were closed and light could only enter by a small opening in the roof. Not later than 120 years ago, we believe, there was not a pane of glass nor a chimney in the whole of Buckie. The door was low and generally had a step down, the floor of earth being lower than the outside ground. The door was fastened in a very primitive fashion. The fastener, or "sneck", was a small piece of hard wood attached with string to the inside. The "sneck" passed through a staple in the door post, and thus secured the door. There was generally a small hole like a key-hole near the fastener; and sometimes light-handed persons would get hold of the piece of string that was attached to the sneck, and noiselessly withdrawing it obtain access to the house. Hence the saying, "an auld sneck-drawer", which was applied to a stealthy or crafty person. Burns called his Satanic Majesty "auld sneck-drawing doug". The building was generally divided by a partition. The largest part of the house was the kitchen or living part; the "butt en" was commonly called "the chaum'er", where the fishing gear, oil and tar was stored. The furniture was rude and innocent of paint, but clean by much sand-scouring. The principal articles of furniture were the dresser and soup-plates dishes' rack, which held a great number of pictures, decorated with blue Chinese pictures. Below were ranged delf bowls of all sizes

1 I.e. about 1760.
on which were painted designs of leaves and flowers of brightest
colours. Wooden and tin cups, and wooden and horn spoons were also
not wanting; while under the dresser was the large "pig" that held
the treacle, sugar being very dear. Across the breadth of the kitchen,
at the gable, fish were hung on spits to dry and smoke. This was the
origin of the fish kilns. These home-cured fish were famed for their
superior quality, and were not excelled. In the houses where fish
were not smoked, the smoke had the freedom of the whole house and
family, making its escape through a small aperture in the roof, or by
the door. The child's crib was originally a scull for holding
lines .... Each family used to have their "midden" close to the door.
When empty the middens resembled round pits, six or eight feet in
diameter, and as many in depth. Here water accumulated, and it was
quite a trivial sight to see a tipsy native being fished out from one
of these unsavoury baths; while on dark nights it was only the most
cautious and those well acquainted with the geography of the district
who escaped a fall or two."¹

¹ Hutcheson, G., Days Of Yore, 73-5.
curtain, stood a strongly made kist or sea-chest, holding clothes. The big double-bed was hidden in a recess, closed-in either by doors or curtains. The furniture of the living room was completed by a table, press and a corner shelf, with its array of dishes and ornaments brought home by seafaring sons. Two other rooms on the same level provided accommodation for the invariably large family. In the yard outside were tarred sheds for storing nets and gear. Then as today, a fisherman's house was never complete without its clothes lines."

James Thomson, writing on the fisheries in 1849, explained that in the "but end" was everything of the best - the most inviting of beds, mahogany chairs and chests of drawers. In the other, common end, was everything necessary for daily life, with an array of Staffordshire ware on a bench opposite the fireplace, a testimony to the taste of the man's wife. 2

Many of these characteristics have been carried on to the present day. There are still earth floors, now covered with patterned linoleum, and there are still many bun-in beds (e.g. one in the Seatown at Cullen, Pl. 388). Old fishermen remember the gradual changes within their own lifetime. They used to play marbles on the earth floor, scooping holes in it to take the marbles. Sometimes the result of sweeping the floor without moving the furniture would be to wear it down and leave the table standing on little columns of earth under the legs. One man in Ianstown remembered the first floor covering he saw - an old sailcloth painted red and laid on the floor. Each week a basket of sand was filled and put in the house; the old sand was swept out and new sand was laid

1 Anson, P.F., Scots Fisherfolk, 14.
2 Thomson, J., Value and Importance of the Scottish Fisheries, 181.
The window in the gable has already been mentioned; the windows were always small, affording the maximum protection. The thatched cottages have almost all been recovered in recent years except in certain villages like Findhorn, where it has remained as a general feature. Fisherfolk are very house-proud and watchful of what other folk are doing; and changes tend to happen to a whole village fairly rapidly.

Mr John Clark of Ianstown, Buckie, insisted that the following was the order in which improvements were made in the houses. First they had the "thackit hoose". Then came the tiles, the notorious pantiles which (as explained in a previous chapter) were often unsatisfactory. They gradually got covered up, first with tar, then with cement, finally with paint, until the tiles rotted under their covering and fell away. Then there were houses roofed with Scrabster flagstones. Lastly came the slates, laid without felt on to boards. The last thatched house in the Slough at Portessie was reroofed in his lifetime.

As far as the plan was concerned, there was first the simple stone-walled building, divided in the middle by a pair of bun-in beds, back to back; these were panelled (though it is my impression that the fisher houses made less use of paneling than the inland ones, and usually had a curtain across the bed, hanging from a carved timber pelmet). They did not at first have a garret, or room in the roof; there was no ceiling until later. The next stage was when the bun-in beds were separated a little, so that a small closet could be made in the centre of the house. There was no back door, and no lavatory; there
was after all plenty of room on the seashore.

From this developed quite logically and functionally the distinctive fisher house of the end of the last century. It was really a but-and-ben with obvious improvements. The downstairs rooms were widened out, the box-beds were sometimes dispensed with, the closet was retained; out at the back were built a washhouse and a back kitchen. Then the upper floor came into use as a loft for gear and storing and mending nets. A staircase led up to this from inside, and another stair went up from the outside at the back. Recently the loft may have come into use as bedrooms.

This account of Mr Clark's is amply borne out by examples. The houses included in the plans show the process clearly. The old simple house (Fig. 99) developed into the fisher house with its outside stair and impressive proportions (Figs. 100, 101) (see also houses in Pl. 396-429). This happened in one of two ways. Either the old house was heightened and the loft added, or entirely new houses, quite clearly designed as if that had happened, were erected. In Findochty there are many examples of the former type. One man recalled that most of the bigger two-storey houses were once typical cottages; their owners had raised the roofs and put on the top storey when times were good. This is usually obvious from the stonework and sometimes from a curious arrangement of the gutters, which, to avoid crossing the windows, are in two stages - one at the eaves, interrupted by the windows, and another at the level of the previous eaves, into which the top ones discharge. There are six such houses in New Street, Findochty.

The new houses were entirely the designs of local builders, and architects were not heard of. In Ianstown most of the houses
(e.g., Pl. 424, 427) were built at the end of the 19th century by a builder called Peterkin; they vary only in the height of the walls, the more expensive ones having the upper windows half in the walls, the cheaper ones having dormers only in the roof. The dormers have the lower part removable to allow the pulling in and out of nets; in some places poles above the windows with pulleys for hauling them up are still to be seen. In Findochty a builder called Mair built most of the houses east of the Hythe in the latter part of the 19th century. During the slump after the first World War another builder (Douglas of Buckie) employed fishermen to build more houses (Mackenzie Street). Many were employed in the quarries, earning about 16/- a week, although one man whose hammer never stopped made as much as £2.

These houses are usually 16 ft. wide inside, and 36 ft. long, with walls always 2 ft. thick (1'10" of stone and 2" of lath and plaster). Some might have two closets on the ground floor and be a little longer. The older ones were usually 14 ft. wide, the oldest about 12 ft. As they got grander still, the width increased to 18 and 20 ft., always in good round numbers. If there were two main rooms downstairs, the parents slept in one, the girls in the other, and the boys slept upstairs in the loft (up to three children per bed). This lack of interest in sleeping quarters is typical of the fishers. In one of the finest houses I saw, built in 1907, there were two large living rooms, a kitchen, bedroom and bathroom on the ground floor; and there was a two-storey loft above, where the several sets of nets (eighty in each set) were kept until recently. This was architect-designed. But

1 This date was given to me and is confirmed by comparison of plans of Ianstown in the Seafield Estates Office, Cullen.
there was only one bedroom, because the owner had no sons, only daughters; and they naturally slept in the bathroom.

This introduces one of the important features of these houses. There were two living rooms because one is always kept for "weddings and funerals", and never used in the ordinary way. It contains the best furniture, the most expensive ornaments; and it is kept spotlessly clean. It is virtually impossible to get into it as a casual visitor; even fishermen who are giving one a guided tour of the whole house will go to any length to avoid opening it. It is part of the passion for smartness, which drives a family into the washhouse. Even in modern times, when the converted loft may be let during the summer as a self-contained flat, this still happens. It is known for the fire to be laid in the grate for appearance during the summer, and the coal to be painted black and the sticks to be varnished to keep them tidy and clean.

The houses have been described as follows:

"During those prosperous years of the herring industry before the first world war, a new type of fisherman's house was evolved on much more elaborate lines. They are to be found in almost every town from Peterhead to Nairn - strongly built houses that suggest affluence and thrift. Many of the exteriors have carved quoins, lintels and finials, either of granite or freestone. The interior woodwork is usually of varnished pitchpine. In some of the larger houses - one might almost term them mansions - there are stained glass windows halfway up the stair, with the owner's steam-drifter depicted on the centre pane. The two sitting-rooms are filled with the best furniture that money could buy. The kitchens are immaculately clean, and fitted with the latest labour-saving gadgets. But what is so interesting is the functional planning of these houses. They were designed for fishermen. Part or whole of the upper floor is given over to a spacious loft for storing gear and mending herring nets. Very often the loft is approached by an outside staircase to avoid bringing nets, etc., into the house. Until about fifteen or twenty years ago, smaller houses suited to the needs of less prosperous fisher families were still being erected in many of the east coast
ports. All the living rooms were on the ground floor, and upstairs was the inevitable loft. But with the craze for standardisation which has swept over this country, the modern fisherman has to be content with just the same type of house that would do for a baker, a butcher or any labouring man. What's more, he is only too thankful to get any sort of house for himself and his family - even a "pre-fab". His home is no longer the expression of himself or his calling."  

The passion for cleanliness (carried on in modern council houses where a whole family will eat in relays in the kitchenette rather than soil the living-dining-room) is further expressed in a most remarkable feature of the villages which stretch along the Moray Firth coast from Portgordon to Portsoy. It is a feature curiously restricted to this area, though it occurs also further south, e.g. in Fife and in Irvine, Ayrshire. This is the vivid painting of the exteriors. Many of them are illustrated in colour (Pl. 382-429). Not only are the houses covered in paint, but even clothes poles may be painted to look like brickwork; and drain-pipes may be in two tones to blend in with the house. Aluminium paint may be seen on doorsteps (Pl. 415).

It is difficult to discern any regular system in the choice of colours and techniques. Broadly, there are two types. One is where the stone walls are kept, but the joints are painted. They may be white, or, if the walls are sneck-harled, the cement may be black and a white line carefully drawn in the middle of the black bands (Pl. 404-405). The other is where the walls are rendered all over, and paint is applied to the whole of the rendering. It may extend to the roof, which may be red, black, grey or even yellow (Pl. 406). In the latter case there are normally three colours - one for the walls, one for the surrounds to the doors and windows and for the basecourse, and one for the woodwork. The latter is invariably dark brown inside the house; outside the door is usually brown, but the windows may be green. It

1 E.g. some houses in Low Shore, Macduff
2 Anson, P.F., Scots Fisherfolk, 15-16.
is not uncommon to see an orange surround with green windows. Sometimes soot was added to the cement to give the pointing more colour.

To take a selection of colours current in 1955 (the colours change sometimes when the house is repainted every two years, so that many of these examples have already been removed), there are in Sandend houses with white on black on stone: others pale blue with artificial white joints or blue with black joints: black and white with light green dressed stones: pink and yellow with dark grey joints: grey walls with yellow corners and green woodwork: black and white joints with dark blue corner stones (cf. Pl. 382-385). Cullen has similar schemes, and also grey and white, pink and grey, ochre and yellow. The gable may be a different colour from the side walls; one has a white gable and near-black walls. Here some of the most effective are where the same colour has been used both for walls and dressed work, but in two different tones. The dressed stones are usually darker than the walls, in shades of ochre, blue, grey, pink or yellow. The dark and light grey is often very effective in contrast with the brighter examples.

If there is no definite system, it is still remarkable how these houses harmonise with one another. Because the colours are strong, it seems possible to make any number of variations. The dictating factor is certainly not any kind of good taste as an architect would know it. The fact that interiors are often so unimaginative in colour suggests that the fisher folk are not sensitive in that way. It is more a matter of pride. It is peculiarly difficult to find out from anyone why he chooses such colours. Most of them shake their heads and laugh; others point to a neighbour's house. One man, busy changing his house
from jet black to pale green, said he had chosen the colour because he thought it looked more like natural stone. Details like door numbers are carefully and elaborately designed to look impressive and smart rather than colourful in any abstract way. The colours are in effect a matter of keeping up standards rather than composing pictures; and the predominance of certain combinations in one village confirms the degree of emulation. Portknockie, for example (Pl. 396-410), is characterised by the predominance of houses painted black with white joint lines.

The questions arise: when did this painting start, and how did it come about? There is a certain similarity between these houses and the painted ones in Scandinavia; and there is certainly Scandinavian blood among the fisher people. It is often suggested that this is the main influence. But the surprising thing is that the painting is not an old tradition at all, and most fishermen would deny that it is the result of any foreign example. 19th century accounts never mention the painting; and it could hardly have been missed by a traveller. Of those who had any views on the origin of the tradition, nearly all agreed that it began about 1900.

The general explanation is this. It started with the painting of the boats in the prosperous days of the herring industry. Every season the boats were drawn up and left to shrink; the terrible smell of the boats after a year made painting welcome. The boat was tarred, pitched and painted; and there was great competition to have the finest looking boat. The greatest care was taken in deciding who should paint the boat's name. Gold leaf was used for the name, and often on the mast heads; one of the grandest sights to be seen was the fleet from Portknockie, bright, shining, and glittering with gold points, setting
out at the beginning of a new season. It was a matter of common consent who had made the best job of it that year.

While the quiet times were on, it was natural to paint the house too. It needed to be as watertight as the boat, and here the paint was invaluable. (Many of the houses leak because of the use of sea sand in the mortar.) So at first the houses were painted the same colour as the boats, and the competition as to who had the finest house was as great as that for the boats. And house numbers were treated with as great care as the boat's name. Gradually the connection between the boats and the houses has been lost, as boats are increasingly owned by large firms and combines.

There is also another factor involved. The painting was never done on lime harling, but only on cement. It was impressed upon me that the introduction of cement harling provided the need to do something to improve the appearance of the house. Portland cement was originally patented in Kent in 1824; by the latter half of the 19th century it was coming into common use for rendering in the North East. The painting became necessary, both because the cement harling was not so waterproof (it is said) as the lime, and because it looked drab and dirty. Fisherpeople cannot abide a dirty-looking house. Hence the opportunity for painting. This seems confirmed by examples. For instance, most of the houses built by the speculative builders about 1890 to 1910 have walls of rubble stone, but quoins and rybats of concrete - presumably because of the difficulty of getting freestone. In these houses, the walls are usually left bare, but the quoins and rybats are invariably painted to cover the concrete. Again, the habit of covering sneck-pointing (cement) with black paint so that only the centres of the
The use of colour in these urban landscapes has not as yet been learned by those responsible for post-war housing.
CONCLUSIONS

The nature of this study has been such that each chapter is a conclusion in itself. The following paragraphs summarise the main conclusions drawn in them, add some general comments, and finish with a note on the break in the architectural tradition associated with the growth of local authority housing.

A. The distribution of settlements.

The physical, economic and social conditions of the region have been described (Part I). The main factors influencing the settlements were the great change in agricultural practice in the 18th and 19th centuries, the development during the former of rural industries and during the latter of specialised urban industries, the growth during the 18th century of the white fishing and in the 19th of the herring industries, and the opening up of communications progressively after 1745. All these factors are individually related to the geography, geology and climate of the region. Thus the initial breakdown into fundamental zones - Highland, Upland, Lowland and Coastline - is justified. In each respect, in agriculture, industrial development, coastal trade, and most noticeably in communications, there was a marked transformation in the lowland areas, a steady concentration along the coastline, a growth of certain nuclei in the uplands, and a relatively slower and more scattered development in the highlands.

Another kind of influence, related to the above, was the
historical development of the organisation of settlements. In Part III, the administrative distinctions between burghs, and the functional origins of smaller settlements - farmtowns, seatowns, castletowns, cottartowns and milltowns, etc. - have been emphasised, showing how a functional demand created a type of settlement and distinguished it from others; and this has been related to historical periods so that the shape, for example, of a royal burgh or burgh of barony can be contrasted with the later layout of a village properly so-called. In all this, the late (18th century) development of true village systems has been explained.

Hence the distribution of settlements, a reflection or cause of the population changes outlined in Part I. The older burgh settlements were concentrated in the lowlands and on the coastline, the urban centres of the Moray lowlands and the rich lowlands near Aberdeen being notable examples. These were junction points on the sparse road system. With the 18th century, urban (often village) centres proliferated in the lowlands and the edges of the uplands; and in the early 19th century this trend became still more pronounced. The distribution map of planned villages and the maps (Part I) showing population trends demonstrate it. Purely rural areas were less populated as the farmtowns disappeared; the reclaimed lands of Buchan and the fostering of village industries there saw a remarkable concentration of village foundations. The lowlands of Banffshire and of Moray saw similar foundations; but Moray being the finest agricultural area retained in its lowland parts a very even distribution of population. In contrast, the highlands tended to retain more of the old settlements.
in the glens, separated from each other by large areas of moor; the planned villages were few and less successful industrially, being saved often by their importance as tourist centres. This new pattern is related to the availability of economic materials and particularly of transport. The improved road system (both parish roads and turnpikes) often left old centres (e.g. Mortlach) off the main routes, and created new junctions of significance where the new villages (e.g. Dufftown near Mortlach) were placed. The relative concentration of urban groups is reflected in the density of roads in the lowlands as contrasted with the sparseness of them in the less accessible highlands. Recent times have seen the less accessible parts steadily decline and the lowlands and large urban centres increase in population. Railways (and for a short time canals, as at Inverurie) gave an impetus to some settlements, in the lowlands and the river valleys of the highlands, and helped to take away importance from others.

Thus it has been with the lowlands and straths, and to a lesser extent with the highland areas, that the study of settlement patterns has been concerned. With the coastal settlements the factor of accessibility and easy contact with large markets in the south has increasingly given more importance to the burghs and main road and rail junctions, while the remoter hamlets below the cliffs have tended to decline.

B. Types of building.

In addition to the factors mentioned above, the most important influence on the development of building types has been the availability of building materials and the methods of construction which
they made possible. The rural, village and small burgh buildings are always a demonstration of the use of local materials; this is one aspect which distinguished them from major works of architecture. The distribution of materials and the history of their working has been given in detail in Part II. There is no doubt that they have influenced the creation of local character, and many of the illustrations are devoted to demonstrating this fact. Some of the principal groups are the granite buildings of Buchan and the highlands, the old red sandstone buildings of north west Aberdeenshire and the east of Banffshire, the clay and boule buildings of Spey Bay, the heavy slated buildings of east Banffshire, Foudland and western Banffshire, the tiled buildings of the coastline and certain not very distant inland areas such as Turriff, and the more refined yellow sandstone buildings of Moray, built of the finest freestone in the region. While thatch was formerly ubiquitous, there are certain contrasts between the straw thatch of the lowlands (especially Moray) and of the fisher towns, and the heather thatch of the uplands and highlands. The final map (Fig. 102) has been drawn in an attempt to indicate broadly the main groups; they overlap considerably, and the boundaries are not to be taken as exact.

This factor seems to have been of greater importance in influencing house types than any influence from the outside. Scarcity of timber kept roof spans short at first, the use of rough field stones levelled up with turf kept walls low. Especially in remote places it may be suggested that the shortage of anything but stone and turf, and the limited amount of wood, contributed to the retention of standard house construction - four stone walls and the minimum of internal partitions, mostly made from the furniture and fittings. The clear
structural distinction between outer walls and internal divisions (expressed very noticeably in the plans) contrasts these houses with many types in England and on the continent. The fixed dimensions seem to have been those of the outer walls; internal proportions of rooms are more variable.

The house plans, all derived from the rectangular long house common in North West Europe rather than from the ancient round house found in the west of Scotland and Ireland, show a steady development and enlargement. The original influence may have come from the continent via England, or from Scandinavia; this is a region in which the Anglo-Norman penetration was marked in the early middle ages. The progression seems to have been in this order: a single unit with animals in one end and people in the other; then the first kind of but-and-ben, a two-room dwelling with the animals excluded; then the standard type, a but-and-ben with a closet between the two rooms. After this, the influence of 18th and 19th century improvement led to amendments more specific to particular occupations. In rural areas, the next stage was the transformation of the roof to form an attic; then the improvement of it with dormer windows; then the enlargement of it to form a first floor. On the ground floor, back kitchens and outhouses were added at the back; then the widths of houses were increased and rooms were sometimes no longer the full width of the house; then the fully developed farm house was composed of these elements - the sturdy two-storey or one-storey-and-attic type with a back wing of kitchens, service rooms and servants' bedrooms above. Thus the rectangular house has become the T-plan house. The conservation of old features and the steady development according to strictly necessary requirements seem to me very marked; records in estate
offices showing additions and alterations strongly suggest that the development was a common-sense improvement of facilities rather than a copying of house types from elsewhere.

In the fisher towns the progression was similar, and similarly became more specific to the occupation. By the end of the 19th century the specialised fisher house of the Moray Firth had grown from the earlier but-and-bens. In this case the attic became a net loft, the dormers were used as doors, and the external staircase at the back gave access to the loft. In contrast to the improvement of bedroom facilities, which characterises the farm houses in this period, the improvement of fisher houses was concerned with the use of similar spaces for working purposes, and the interest in bedrooms remained minimal. The application of paint during slack seasons also contrasts them with the rural houses which remained plainer and more austere.

Farm offices altered in the 18th and 19th centuries from the single row of byres and sheds, often attached to the house, to the courtyard plan, either complete or partially open, according to the size of farm. This development was almost certainly influenced from the south and by publication of plans, and may be related to the importation of farmers at the time of the improvements and to the discussion of improved methods through the proprietors' agricultural clubs. Churches were rebuilt in great numbers to a larger scale but usually to a traditional plan in this period. Mansions changed from castellated types to country house types under the influence of Georgian examples and of the pattern books published both by the major architects and builders. Details from this source (e.g. sash and casement windows) became standard practice in ordinary housing.
Industrial buildings were influenced from the same source, but remained plain and functional, distinguished by the use of local materials.

Town and village layouts were at first informal, the early mediaeval burgh form of street and market space, with strips running back from the highway, being the basis of the organisation of land. Farmtown layouts were dependent purely on the nature of the site. With the planned villages, the formalisation of the old layout so that the street system with rigs at right angles was put into a rectangular grid, suggests the same home-grown conservatism as that of the houses. But here the principal influence came from Georgian planning in the cities, in itself the amalgamation of baroque formality and native street, tenement and courtyard planning. Craig's plan for Edinburgh's New Town is strongly suggested as the model for new towns and new villages in the North East; the central spine, the squares on it, the parallel streets and the intermediate service lanes, are echoed in Fochabers, Cullen and many other examples. This planning is characterised by being two-dimensional.

In all this 18th and 19th century transformation of the architectural scene, certain often unrecognised influences can be singled out. First there was the effect of the clubs of improving landlords, meeting for discussion and presentation of improvements. Edinburgh seems to have been a considerable clearing house of ideas from all parts of lowland Scotland; and there is no doubt (cf. Grant of Morymusk's investigations of how other proprietors designed buildings) that many of them were emulated. Secondly, the effect of Sir John Sinclair's Statistical Account and more especially of the Agricultural
Reports, which included model designs and which were summarised to give detailed advice on plans, materials and construction, must have been widespread. Farm types after this time are clearly based on such designs, and construction was virtually standardised. Thirdly, the influence of the Estate Offices and of their Clerks of Works can hardly be overestimated. Not only were they the organisations responsible for the improvements, but standard plans and adaptations and standard specifications were poured out by them for all kinds of rural building. The estate offices were under a private enterprise system the precise equivalent of the governmental departments of today; their plans and specifications were the forerunners of the present Housing Manuals. With the increase of the system of giving grants for improvement, the work of the estate offices has recently changed to come more in line with modern practice; and the responsibility for agricultural cottages has been largely taken over by the local authorities. The estate offices contain a mass of material of great value in the study of rural architecture.

Fourthly, there were the planners of the villages and town extensions. They were responsible for a highly significant planning movement, and yet have remained unrecognised. They were employees of landowners or independent surveyors; with the exception of Fochabers (a consciously beautiful town worked on by architects) the villages were planned by the same people who recorded farm boundaries and surveyed wide areas of property. Their output was considerable, and their maps can still be found. Such surveyors as Peter May, Thomas Milne, George Brown, Peter Brown and George McWilliam, who died a highly respected citizen of Elgin about the middle of the 19th century, were
planners of some distinction; much historical work could be done in tracing further than this study has allowed their contribution to the architecture and planning of Scotland.

Finally it should be added that while the question of foreign influences on the region has not been a main part of this study, they seem to have been a matter of relatively minor importance. Even in the burghs and painted fisher villages, where influence from the Low Countries and Scandinavia is often discerned, it is probably less than expected and rather indirect - and mostly from earlier periods than that of this study. It may be more distant and racial, and of greater interest to an anthropologist. More direct influence came from England in the 18th century as a result of the investigation of and publication of farming procedures and manuals of building.

C. Twentieth Century Trends.

Developments in housing during this century are in many respects the real conclusion to the subject of this study. The houses and the layout of settlements have a history of steady development along traditional lines from the early 18th century to approximately the time of the Great War. House types changed only in the way described above; village extensions followed the pattern of the planned villages in a natural way. Until 1914 there was little change in the use of materials or in construction from the practice of the previous century. There were some good examples of rural housing on some estates. At Dunecht the Cowdray family were responsible for some very neat traditional housing, partly in rows and partly in small groups. A view
of the latter (Pl. 452) shows the tidy roadside arrangement and the excellent stonework of the Dunecht housing.

The inter-war period was one of economic decline and sometimes of disaster. Agriculture did not prosper and the fishing industry slumped. Little building was done except in the major towns; the rural and coastal districts saw a very limited amount of more or less traditional building. Fisher houses, for example, were still built in the same way, but with reduced standards and cheaper walls; the changing economics of the building trades began to make use of stone expensive. Many local industries connected with building went out of production. The local slates ceased to be used and most of the brick and tile works either collapsed or confined their production to agricultural drain tiles. Some of the planned villages decayed noticeably. One of the few examples of good local authority housing is to be seen in Elgin, (Fig. 457), near the Cathedral and on the main road. A row of two-storey houses, separated from the main road by a service road, it is well-detailed, carefully composed, and fronted with Morey sandstone. It was completed after the Second World War, and is possibly the best example of modern housing in the region. At Fochabers, the Gordon Estates built a number of good houses for estate employees, adapted from the traditional plan but constructed of timber from the estate plantations. They are capable of considerable further development as the amount of timber available increases.

Since the Second World War the destruction of any local tradition in housing and layout has been almost complete. The materials available within the economic range of the local authorities responsible are of course different from those in which the traditional houses were
built. Stone has become expensive and most of the old quarries are not in use, the exceptions being the granite quarries and the Burghead sandstone quarries. Imported common bricks and concrete blocks made locally are cheaper; cement harling has almost entirely replaced the older wall textures.

There are some good examples, and there has been in some areas an attempt to develop in accordance with contemporary housing standards a house with local character. In Elgin again, a group of two-storey houses at Bishopmill (architect, John Wright) was built in 1949-1950 with a conscious traditional flavour. It is a symmetrical layout of houses in blocks of eight, four and two, built of concrete blocks with white cement harling. The main feature (Pl. 456) is the introduction of arches at the front based on the old burgh arcades in the main street of Elgin; otherwise the plans are normal housing-manual types. The proportions of the arches had inevitably to be changed to suit regulation ceiling heights and room areas, and it might be questioned whether this attempt, while more attractive than most of the other housing there, is not a wholly artificial device to superimpose a local character by the use of unnecessary features. The local tradition is always strictly functional. The other houses on this site are by the Weir Corporation.

In Aberdeenshire more emphasis on tradition in rural housing has been evident. A standard type, of granite where possible, with dormer windows and roofs sometimes of shingles, has been much used. When the materials are good, it can be very effective. There are good examples at St Combs and at Fintray (Pl. 454, 455), where the stones were taken from Fintray House. These are well designed and
fairly neatly laid out.

But generally it cannot be said that post-war housing in the North East has enhanced the rural and urban landscape. Some typical examples are shown on the last page of illustrations (Pl. 458-462). Not only are the houses usually drab and the materials poor, but there seems to have been a total failure to develop sensible layouts. In no respect is the collapse of tradition in the small settlements more apparent than in this. In Banff, some attempt was made to plan old people's houses in depth along the rigs behind the main street (Pl. 453). But in almost any of the planned villages where housing has been erected the original pattern has been perversely ignored. Despite the fact that they were planned to allow of easy extension along the lines set, and that they have such a positive pattern that a departure is always glaring, the villages have been extended with curving cul-de-sac roads at low density in the midst of fields, with corners of wasted open space and little provision for outbuildings. Little use of gap sites in the villages has been made, even where there are many of them; it is a common thing (e.g. New Pitsligo) to see a decayed centre of a village, and a peripheral development of wholly alien character. The demand having been satisfied, it is likely that many of these decayed centres will remain indefinitely.

In the fishing villages the failure to appreciate the existing pattern is often more noticeable still. In a village with as distinctive a layout as Inverallochy, the post-war housing (seen on the left of the aerial view, Pl. 350) bears no relation to the village. All along the coast, e.g. at Findochty, there are housing schemes similarly unconsidered. The fault is again in layout; there has hardly
been any attempt to make provision for stores and sheds, for correct orientation in relation to winds, for footpath access, for enclosed spaces. This is not merely a sentimental necessity, but a functional one. The chief functional reason for the recent roadway layouts seems to be keeping to contours so as to avoid the expense of underbuilding and the extra design-time needed if any change in housing types is suggested by the site. The old village patterns had greater functional significance than this, which was concerned with suitable accommodation, shelter and circulation. They are in sharp contrast to the unimaginative layouts of recent years.

Two last points may be made. First, the post-war years have virtually seen the end (as far as new building is concerned) of the local character of North East buildings as described in this study. Second, the fact that it is partly caused by a lack of attention to functional requirements confirms the assumption that local character is essentially the product of satisfying, practically and simply, local needs. It is the vernacular language of architecture; and it seems that a new vernacular will not emerge until more investigation is made, not of past styles or of foreign examples, but of the actual local conditions and the demands they create. The lesson of the vernacular in the region is the way in which previous demands have been met with a local architecture and how a similar process in different conditions might be attempted again.
GLOSSARY OF TERMS

(Terms in use or once used in connection with buildings: checked where possible with published glossaries and Scottish National Dictionary)

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>AMBRY, AUMBRY</td>
<td>Cupboard, press.</td>
</tr>
<tr>
<td>ASTRAGALS</td>
<td>Glazing bars.</td>
</tr>
<tr>
<td>BARKS</td>
<td>Rough boards, outside of sawn logs.</td>
</tr>
<tr>
<td>BAND</td>
<td>Bond; thus throughband, inband etc.</td>
</tr>
<tr>
<td>BAND STONES, BOND STONES</td>
<td>Throughbands; stones laid crosswise through a wall at regular intervals to give stability.</td>
</tr>
<tr>
<td>BARGE</td>
<td>Projecting drip at base of chimney stack to throw off water: cover plate at verge.</td>
</tr>
<tr>
<td>Baulk, Balk</td>
<td>Beam, roof tie or collar.</td>
</tr>
<tr>
<td>Belt course</td>
<td>String course.</td>
</tr>
<tr>
<td>Belting</td>
<td>Plinth, base course at foot of wall (not usual).</td>
</tr>
<tr>
<td>Bigging</td>
<td>Building; house; sometimes for a hamlet.</td>
</tr>
<tr>
<td>Bink, Binkie</td>
<td>Shelf or ledge on either side of an old-fashioned grate.</td>
</tr>
<tr>
<td>Blower</td>
<td>Sometimes used for the iron cover to the fireplace.</td>
</tr>
<tr>
<td>Box bed</td>
<td>Bed enclosed on three sides, the fourth side closed either with hinged doors or curtains.</td>
</tr>
<tr>
<td>Breast</td>
<td>Riser on steps; part of window below sill.</td>
</tr>
<tr>
<td>Breast of PLENISHING;</td>
<td>Built-in furniture (plenishing), including box-beds, which formed the partition in an old house.</td>
</tr>
<tr>
<td>BREST O' PLENISON</td>
<td></td>
</tr>
<tr>
<td>Broads</td>
<td>Boards.</td>
</tr>
<tr>
<td>Bun-in-bed</td>
<td>Box-bed (term used in fisher villages).</td>
</tr>
<tr>
<td>But-And-Ben</td>
<td>Standard house type of two rooms; usually but = outer (kitchen) end, ben = inner (best) room (see text, Part III, Chapter i).</td>
</tr>
<tr>
<td>Cabirs</td>
<td>Poles, rafters.</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CAUSEWAY, CAUSEY</td>
<td>Road, cobbles, used for cobbled paths in front of houses.</td>
</tr>
<tr>
<td>CHAUMER</td>
<td>Men's room.</td>
</tr>
<tr>
<td>CHEEKS, CHECKS</td>
<td>Door cheeks, side posts.</td>
</tr>
<tr>
<td>CHERRY-COCKING</td>
<td>Galleting, small pieces of stone set into mortar joints.</td>
</tr>
<tr>
<td>CLOSET</td>
<td>Small room between the but and the ben, behind the box-beds.</td>
</tr>
<tr>
<td>COUPLES, CUPPLES</td>
<td>Rafters; crucks (cf. &quot;yird-fast cupples&quot;).</td>
</tr>
<tr>
<td>CRAP O' THE WA'</td>
<td>Wall head (literally &quot;top of the wall&quot;).</td>
</tr>
<tr>
<td>CROOK</td>
<td>Hook from which pots are suspended over the fire.</td>
</tr>
<tr>
<td>DEECE, DEAS</td>
<td>Wooden seat or bench.</td>
</tr>
<tr>
<td>DIVOTS</td>
<td>Turf's.</td>
</tr>
<tr>
<td>EASING</td>
<td>Eaves.</td>
</tr>
<tr>
<td>ETHERING, EDDERING</td>
<td>The horizontal straw rope on a thatched roof or rick, that loops with the vertical ropes and is fastened at the skew.</td>
</tr>
<tr>
<td>FEAL, FEALL</td>
<td>Turf.</td>
</tr>
<tr>
<td>FEAL HOUSES</td>
<td>Houses with walls, gables or roofs of turf.</td>
</tr>
<tr>
<td>GABLETED CROW-STEMS</td>
<td>Crow-steps shaped like miniature gables.</td>
</tr>
<tr>
<td>GAVELL, GABEL, GA'EL</td>
<td>Gable.</td>
</tr>
<tr>
<td>HAFFIT, HAFFET</td>
<td>Check of a dormer window; upright member of shelves, cupboard or box-bed.</td>
</tr>
<tr>
<td>HANGING LUM</td>
<td>Timber chimney, suspended from gable wall or rafters.</td>
</tr>
<tr>
<td>INBAN, INBAND RYBAT</td>
<td>Quoin or jamb stones showing the short end on the main wall face and long wide in return (opposite outband).</td>
</tr>
<tr>
<td>INGCE</td>
<td>Reveal face of a jamb; jamb.</td>
</tr>
<tr>
<td>INTAKE</td>
<td>Plinth or offset to a wall.</td>
</tr>
<tr>
<td>LOZENS</td>
<td>Window panes.</td>
</tr>
</tbody>
</table>
LUMB, LUM  Chimney.
OVERCAST  Rendering, walls covered with thick coating of lime.
OUTBAND (OUTBAND RYBAT)  Quoin or jamb stones showing the long side on main wall face.
PIEND  Arris between inclined planes; ridge, hip of roof.
PLAT, PLATT  Step below threshold.
PLINTH  Eaves course, wall head course.
RANTLE-TREE, RANTREE  Crooktree, the support inside a chimney from which the crook is suspended, made of timber (rowan) or iron.
REIND, RIND  Battens, laths from which tiles are hung.
RIBBIT, REBBIT, RYBAT  Reveal stones.
RIGGING  Roof; ridge of the roof.
SADDLE  Apex of gable, or coping splayed both ways.
SARKING, SERKING  Boarding on rafters.
SAVES, SAVERS, SAVING STONES  Stones over a lintel to distribute the load to the jambs.
SCLATER, SCLATES, SCLATTER  Slater, slates.
SCUNCHEON, SCONTION, SCUNTION  Corner stones; return of a pier or pilaster; ingo, or interior edge of a window jamb.
SHADE  Shed.
SHIVERS  Chippings, broken stones.
SKEW  Raking end of a gable.
SKEW CORBEL, CLUB  Footstone for the tabling or skew coping; kneeler (cf. spur stone).
SKEW PLATES  Wall plates fixed to the skew.
SKREW TABLING, SQUE TABLIN  Skew coping.
SNECK  Latch, small stones in random rubble.
SNECK HARL, HARLING  Roughcast showing the faces of occasional stones.
<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tbody>
<tr>
<td>SNECK POINTING, PINNING</td>
<td>Pointing flushed up to the face of the walling leaving the faces of the stones clear.</td>
</tr>
<tr>
<td>SNECKED RUBBLE</td>
<td>Rubble stone-work with small stones to break the courses.</td>
</tr>
<tr>
<td>SPALLS</td>
<td>Small pieces of broken stone, used to fill spaces in rubble work.</td>
</tr>
<tr>
<td>SPUR STONE, SPUR STONE</td>
<td>Skew corbel.</td>
</tr>
<tr>
<td>SPROTS</td>
<td>Jointed rushes used in thatching.</td>
</tr>
<tr>
<td>STOB THACK, STOB THATCH</td>
<td>Thatch c. 9&quot; to 1' thick, in which the straw is driven in with a stob or stake.</td>
</tr>
<tr>
<td>STOUP</td>
<td>Recess in wall inside the door used to keep water.</td>
</tr>
<tr>
<td>SWEEL, SWEEL</td>
<td>Chimney crane.</td>
</tr>
<tr>
<td>THACK (THACK AND RAPE)</td>
<td>Thatch (thatch and rope).</td>
</tr>
<tr>
<td>THROUGH BAND</td>
<td>Bandstone, bondstone; sometimes used for timber bands spaced crosswise through a stone wall.</td>
</tr>
<tr>
<td>TREVICE POSTS</td>
<td>Posts between stalls in a stable.</td>
</tr>
<tr>
<td>UPSTART</td>
<td>Reveal stone placed vertically.</td>
</tr>
<tr>
<td>WATER TABLE</td>
<td>Projecting ledge at base of chimney; dripstone.</td>
</tr>
<tr>
<td>WINDOW BOSSING</td>
<td>Recess in wall beneath window.</td>
</tr>
<tr>
<td>YIRD-PAST CUPPLES</td>
<td>Crucks, heavy rafters carried from the ridge down to the ground (lit.&quot;earth-fast couples&quot;), or set on foundation or plinth stones.</td>
</tr>
</tbody>
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Note: The letters OSA refer to the (Old) Statistical Account, edited by Sir John Sinclair; NSA refers to the New Statistical Account.


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49. " " "(house).
50. " " "
51. Seafiel Estates: Raemore, Black Culphn.
52. " " : Baldavie.
53. Recommended farm types.
54. Cullen House home farm: terraced cottages.

(Specialised Buildings)
57. Mill of Rathven.
58. Durn Meal Mill.
59. Crooksmill, near Keith.
60. Tynet Mill.
61. Smithies: Auchindown, Upper Clashnoir, Bauds of Cullen.
62. Tollhouses: Portsoy, Bridge of Spey.
63. Brick and Tile Works.
64. Churches.

(Town plans: old settlements)
65. Old Aberdeen: Garmouth.
66. Forres.
67. Banff.
68. Portsoy 1802.
(Planned villages)
69. Distribution of planned villages.
70. Monymusk: Keith, Fife Keith and Newmill.
72. Cullen 1764 (old town).
73. Cullen (new town and seatown).
74. Fochabers 1770 (old town).
75. Fochabers (sketch of tenement).
76. Fochabers (new town).
77. Fochabers (Estates Office).
78. Fochabers (Darnley House).
79. Tomintoul 1773, 1775, 1778.
80. Tomintoul.
81. Keith and Fife Keith.
82. Dufftown.
83. New Pitsligo.
84. Strichen.
85. Stuartfield.
86. New Aberdour: Fetterangus.
87. Cuminestown.
88. Garmond.
89. Cuminestown and Garmond.
90. Comparative Planned Villages.

(Fisher Villages and Houses)
91. Distribution of fisher towns.
93. Findhorn.
94. Inverallochy.
95. Portknockie.
96. Footdee (Aberdeen).
97. Buckie (plan, 1780).
98. Buckie (early 19th century plan).

100. " " " " "
101. " " " " "

(Conclusions)

102. Distribution of house types.
LIST OF PLATES

1. Nether Auchenreath - farmtown, Spey Bay.
3. "  " - interior.
5. "  " - stone, clay and straw walling.
6. "  " - ditto, clay and straw thatch.
7. "  " - clay and straw walling with lime harling.
10. "  " - byre with clay thatch
11. "  " - village pump.
12. "  " - lime harled cottage.
15. "  " - cottage.
16. "  " - 'Auchenhalrig' walling and clay thatch.
17. "  " - cottage and shed.
18. "  " - shed with 'Auchenhalrig' walling and timber gable.
20. "  " - ditto, another example.
22. "  " - ditto.
23. "  " - derelict wall, interior of wall.
24. "  " - ditto, showing chopped straw.
25. "  " - boule walling in lime mortar.
27. Auchenhalrig, Spey Bay - 18th century house.
28. "  " - ditto, detail of window and lime harling.
29. "  " - local walling, lime-washed.
30. "  " - ditto.
31. "  " - stone and lime walling.
32. "  " - pantiles and slate eaves.
33. Rathven, Banffshire - farm cottage.
34. "  " - ditto, interior, showing plenishing.
35. Rathven, Banffshire – farm cottage, roofing.
37. " " – ditto, walls of stone and clay lime-washed.
38. " " – ditto, straw thatch and timber lum.
39. " " – ditto, interior showing fireplace.
40. Burnside of Deskie (Teetaboutie), near Glen Livat – group of cottages.
41. " " – ditto, cottage with timbered lum.
42. Glenrimnes, Banffshire – croft with timber lum.
43. " 2 " – ditto, interior with fireplace, showing timber lum, jambs, pinks and crook hanging from the rantle-tree.
44. " " – ditto, thatched byre with 'rapes and etherings'.
46. " " – ditto, interior with fireplace.
47. " " – derelict fireplace.
48. " " – 'stoup hole' in derelict cottage.
49. " " – ditto.
50. " " – stonewalling with upper courses of turf.
51. " " – derelict gable showing rantle-tree, crook and jamb.
52. " " – small farm, interior of mill barn.
53. " " – ditto, timber millwheel.
54. Avenside, Fodderletter – typical small croft.
55. Tommavoulin, Glenlivet – ruined cottage showing lime walling with snecked pointing.
56. Glenlivet – typical 'improved' small farm.
57. " – Nevie farm buildings.
58. " – Achorachan farmhouse.
59. " – farm buildings.
60. " – stables.
61. " – Lettoch, Dungcourt.
63. " – outhouse with Cnocfergan slates.
64. " – farmouse.
65. " – Deskie Farm.
68. Auchinbadie Farm, near Alvah, Banffshire - 19th century farm.
69. Cruats Farm, Portknockie, Banffshire - steadings and millpond.
70. Stynie Farm, Moray - 19th century farmhouse.
71. " " " - farm steadings.
72. " " " - ditto.
73. " " " - ditto.
74. Carnousie Castle Home Farm - entrance to steadings.
75. Letterfourie, Banffshire - farm steadings.
76. Near Banff - field walling and farm gates.
77. Upper Dallachy - early 18th century house.
78. Near Cranloch, Moray - 18th century thatched cottage.
79. Mosstodloch - 18th century row cottages.
81. Near Bridge of Isla and Ruthven - clay-walled cottage, lime-washed and thatched, with corrugated iron over the thatch.
82. Near Urquhart, Moray - clay-thatched cottage.
83. Craigmaud, near New Pitsligo, Buchan - clay thatch on pantiles.
84. Feddan, near Nairn - cement-harled house with mock stonework.
85. CarnousieMill, Banffshire.
86. " " " showing old chimney vent.
87. " " " interior, millstone.
88. " " " upper floor.
89. Mill of Towie, Tochineal, Banffshire.-
90. Mill at Forres.
91. Mill of Rathven, Banffshire - kiln.
92. " " " millwheel.
93. Crooksmill, Keith.
94. Mill of Tynet, Moray.
95. Woolmill at Tomnavoulin, Glenlivet.
96. " " "
97. Lime kiln, Glenbuchat.
98. Cottartown of Ardoch.- derelict smithy, interior.
99. " " " - ditto, showing timber lum.
100. " " " - ditto, exterior with remains of timber lum.
102. Tollhouse, near Dufftown, Banffshire.
103. Salmon station, Tugnet, Spey Bay.
104. Icehouse, near Port Gordon, Banffshire.
105. Doocot, at Kininvie House.
106. Doocot at Delgaty Castle, Aberdeenshire.
107. Doocot near Buckie, Banffshire.
108. Coastguard station, Burghead, Moray.
110. " " " - tiled roofs and track from clay pit.
111. " " " - detail of tiles.
113. Glen Dronach Distillery, near Forgue, Aberdeenshire.
114. Glenlossie-Glenlivet Distillery, Thomshill, Moray.
115. " " " " " " " " " - "cherry-cocking".
116. " " " " " " " - interior, 1955.
117. Aultmore Distillery, Keith, Banffshire.
118. Glenlivet Distillery, Banffshire - distillery houses.
119. Halforest Castle, near Kintore, Aberdeenshire.
120. Corgarff Castle - by the Lecht, Aberdeenshire.
121. Boyne Castle, Banffshire.
122. Delgaty Castle, near Turriff, Aberdeenshire.
123. Fordyce Castle, Banffshire.
124. Brodie Castle, Moray.
125. " " " " - detail of 'cherry-cocking'.
126. Innes House, Moray.
127. Coxton Tower, Moray.
128. Kinnairdie Castle, Banffshire.
129. " " " " - detail with brick-nog construction.
130. Carnousie Castle, Banffshire.
132. Rothiemay Castle, Banffshire.
133. " " " " - detail of stonework with 'cherry-cocking'.
134. Birkensbog House, Banffshire.
135. Kininvie House, Banffshire.
137. Letterfurie House, Banffshire.
139. Monymusk Church, Aberdeenshire — interior.
140. Birnie Kirk, Moray — interior with Norman chancel arch.
141. " " " — exterior.
142. Elgin Cathedral.
143. Elgin Bishop's Palace.
144. St Machar's Cathedral, Aberdeen — detail of 15th century granite work.
145. Gravestone in Kinloss Abbey grounds.
146. The Old Church, Cullen.
147. Parish church, Kirkton of Kinnellar, Aberdeenshire (1801).
148. Alvah Kirk, near Banff (1792).
149. " " " — detail.
150. Inveraven Kirk, Banffshire (1806).
151. " " " — detail of window.
152. Alvas Kirk, Moray (1789).
153. Ordiquhill Kirk, Banffshire (1805).
154. " " " — interior, with pulpit.
155. Rathven Kirk, Banffshire (1794).
156. Dyke Church, Moray (1781).
157. Dallas Kirk, Moray (1793).
158. " " " — watch house.
159. Rafford Kirk, Moray (1826) (architect, Gillespie Graham).
160. St Gregory's Church (R.C.), Preshome, Banffshire (1788).
161. St Ninian's Church (R.C.), Tynet, Moray (1755).
162. R.C. church, Tombae, Glenlivet (1829).
163. St Peter's Church (R.C.), Buckie (1853) (architect, Bishop Kyle).
164. West Manse, Deskford, Banffshire.
165. " " " — detail.
166. Old Manse, Kirkton of Deskford, Banffshire.
167. Manse at Portknockie, Banffshire.
168. Manse at Achbreck, Glenlivet.
169. Stynie Manse, Moray.
170. School at Alvah, near Banff.
171. School at Drummuir, Banffshire.
172. Bridge at Altahuish over the River Lossie.
173. Craigin Bridge, Buckie.
174. " " " — detail.
175. Bridge at Tomnavoulin, Glenlivet.
176. Bridge of Aven, near Tomintoul.
177. New bridge at Keith.
178. Old Bridge, Keith.
179. "  "
180. Bridge on the Isla, 1\frac{1}{2} m. n.e. of Keith.
181. Poldullie Bridge, Strathdon.
182. "  "
183. Bridge at Earlsmill, near Forres.
184. Bridge of Marnoch, Banffshire.
185. Footbridge to woolmill, Tomnavoulin, Glenlivet.
186. Bridge over the Lossie at E. Calcots, n. of Elgin.
187. Deveron Bridge, Banff.
188. Bridge of Potarch, near Kincardine o' Neil, Deeside.
189. The Old Bridge, Invercauld, Braemar.
190. Bridge of Philorth, near Fraserburgh, Aberdeenshire.
191. Spey Bridge, Fochabers.
192. Wade Bridge, Glengairn.
194. Don Bridge, Alford, Aberdeenshire.
195. Castle Bridge, Forres, 1908.
196. Don Bridge, Inverurie, Aberdeenshire.
197. Boat o' Erig, near Rothes, Moray.
198. Bridge over the Lossie, near Morriston, Elgin.
199. Iron bridge, Craigellachie (Thomas Telford).
200. "  "
201. "  "
202. Cloddagh Bridge over the Lossie, near Birnie, Moray, 1905.
203. Footbridge over the Dee, early 20th century.
204. Findhorn Bridge, Forres, 1938.
205. Old Aberdeen - Town House.
206. "  - house in Don Street, granite and pantiles.
207. "  - Cluny's Port, granite and 'cherry-cocking' with upper walls of brick.
208. "  - King's College Chapel.
209. Aberdeen - Provost Skene's House.
211. "  - Fife Arms Hotel.
212. Fordyce, Banffshire - castle and surrounding houses.
213. Fordyce, Banffshire - wynd with curved row of derelict cottages.
214. Old Deer, Aberdeenshire - lane leading from main street.
216. " - general view.
217. Garmouth, Spey Bay, Moray - house.
218. " - Townhouse.
219. " - view with mainly 18th century houses.
220. " "
221. " "
222. " "
223. " "
225. " - Town house.
228. Elgin, Moray - St Giles Church.
229. " - High Street.
230. " - arcades on High Street.
231. " - Braco's Banking House, 1694.
233. " - houses in High Street.
234. " "
235. " - close opening from High Street.
236. " "
237. " - private garden.
238. Forres, Moray - derelict houses, possibly 17th century.
239. " - derelict house with brick-nog construction.
240. " - detail of doorway, No. 10 North Street.
241. Banff - Old Inn, 1587 (original date).
243. " - wynd opening from High Street.
244. " - old houses in Carmelite Street.
245. " - houses off North Street.
246. " - close in High Street.
247. " - Dutch-gabled house in Boyndie Street (date stone IC/MS 1740).
248. " - Back Path.
249. " - Back Path.
250. Banff - Strait Path
251. " - ditto.
252. " - house in Low Street.
253. " - Low Street, with Fife Arms Hotel.
254. " - St Mary's Church (1790) (steeple 1949).
255. " - house in High Street.
256. " - Town House.

257. Monymusk, Aberdeenshire - original houses in Square.
259. Tomintoul, Banffshire - the Square.
260. " -
261. " - general view.
262. Keith, Banffshire - the Square, with St Thomas's R.C. Church (1831).
263. " - street doorway.
264. Fochabers, Moray - design for house in planned village by James Baxter, 1786.
265. " -
266. " - plan for house by James Baxter.
267. " - sketch for layout of streets and houses, James Baxter.
268. " - design for new house (J. Baxter, 1778).
269. " -
270. " -
271. " -
272. " - Bellie Parish Church (Baxter, 1798).
273. " - the Square.
274. " - corner house with modern addition.
275. " - Estate Office in the Square (formerly the Baron Bailie's House).
277. " - Gordon Arms Hotel.
278. " - courtyard.
279. " - houses at corner of Main Street and Square.
280. " - entrance to backyards.
281. " - timber lum in cottage of South Lane.
282. " - Gordon Street.
283. " - late 18th century doorway, South Street.
284. " - street houses.
285. Fochabers, Moray - pantiled house in Gordon Street.
286. " " - house in Westmorland Street.
287. " " - house in Castle Street.
289. " " - house in Main Street.
290. " " - detail of granite stonework.
291. " " - "
292. " " - detail of stonework.
293. " " - house in Institution Street.
294. " " - detail of stonework made with Spey boules.
295. " " - "
296. " " - "
297. " " - house in South Street, rubble walling.
298. " - " - detail of walling.
299. " " - house in Main Street.
300. " " - detail of walling.
301. " - South Street, mixed walling.
302. " - stoned walling with sneck pointing.
303. " - modern wall made with Spey boules and concrete, erected in shuttering.
304. Urquhart, Moray - thatched cottage and professional thatcher.
305. Urquhart, Moray - thatched cottages, straw and clay.
306. " - rubble walling, straw and clay and timber barge board.
307. " - "
308. " - thatched cottages.
309. " - "
310. " - general view.
311. " - detail of straw and clay thatch.
312. New Pitsligo, Aberdeenshire - aerial view.
313. " - thatched house in Low Street.
314. " - detail of granite walling with straw thatch on pantiles.
315. " - typical weaver's cottage.
316. " - High Street.
317. " - "
318. " - derelict cottage on High Street, thatch on divots.
319. " - thatched cottage.
320. " - straw thatch on slate.
322. Strichen, Aberdeenshire - aerial view.
323. " " - Bridge Street.
324. " " - West Street at corner of High Street.
325. " " - Corner of High Street, weavers' cottages.
326. " " - houses in Bridge Street with corbelled dormers.
327. " " - houses in Bridge Street.
328. Cuminestown, Aberdeenshire - Main Street.
329. Aberchirder, Banffshire - Main Street.
330. " " - Main Street from Square.
331. " " - typical house in Main Street.
332. Cornhill, Banffshire - row houses.
333. " " - Gordon Arms Hotel.
334. Stuartfield, Aberdeenshire - houses in Square.
335. Fortlethen, Kincardineshire - small bay and boats.
336. " " - " " " "
337. Burnbanks, Kincardineshire - salmon fishers/crofters' cottages.
338. " " - " " " "
340. " " - thatched cottages.
341. Salmon nets at Burnbanks.
343. Altens Haven, Kincardineshire - salmon fishers/crofters' cottages.
344. Skateraw, Kincardineshire.
346. Interior of Fisher cottage.
347. Footdee, Aberdeen - Pilot Square.
348. " " - one side of North Square.
349. " " - "sheddies" in North Square.
350. Inverallochy, Aberdeenshire - aerial view.
351. " " - fisher cottages.
352. " " - fisher houses with gables to the road.
353. " 2 " - fisher house on Mid Street, cement on pantiles.
354. " " - reputedly oldest house in Shore Street.
355. " " - detail of gable.
356. St Combs, Aberdeenshire - fisher house.
357. Pittullie, Aberdeenshire - fisher houses with gables to the sea.
358. " " - detail of house from above.
359. " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " 
393. Cullen, Banffshire - Main Street in the New Town.

394. " " - " " " " " " - the Sea Town from the New Town.

395. " " - " " " " " " - 19th century photograph of fishermen.

396. Portknockie, Banffshire - 19th century photograph of fishermen.

397. " " - old fisher house.

398. " " - painted house in Church Street.

399. " " - painted houses, corner of Church Street.

400. " " - pebble-dash rendering.

401. " " - painted houses and close.

402. " " - painted houses in Church Street.

403. " " - detail of painted pointing.

404. " " - detail of painting in Church Street.

405. " " - " " " " " " - painted houses and close.

406. " " - cross street with house gables.

407. " " - typical late 19th century fisher house, with attic loft.

408. " " - typical early 20th century fisher houses.

409. " " - external staircase to loft.

410. " " - various wall treatments.

411. Findochty, Banffshire - old house with pantiled roof.

412. " " - " " " " " " 'Maggie Doo'.

413. " " - No. 5 New Street.

414. " " - Brethren Meeting House.

415. " " - back of Siller Street, aluminium-painted steps.

416. " " - details of painted houses on quayside.

417. " " - detail of fisher house porch.

418. " " - Siller Street.

419. " " - fisher house.

420. " " - head of Siller Street.

421. Buckie, Banffshire - fisher houses in the Seatown.

422. " " - seine-net boats.

423. Portessie, Banffshire - The Hythe.

424. Buckie, Banffshire - fisher houses c. 1900, in Ianstown.

425. " " - fisher house in the Yardie.

426. " " - " " " " " " - fisher houses in Ianstown.

427. " " - fisher houses in Ianstown.

428. Portessie, Banffshire -

429. " " - fisher houses.
430. Lossiemouth, Moray - fishing boats.
431. " " - road between fisher houses.
432. " " - paths between fisher houses.
433. " " - fishers' "sheddies".
434. " " " " " " " "
435. Ardesier, Nairnshire - entrance to village.
436. " " - 19th century houses.
437. Findhorn, Moray - altered 17th century house.
438. " " - the Kimberley Inn.
439. " " - fisher cottage with straw thatch.
440. " " " " " " " " " "
441. " " - fisher cottage, rear of No. 440.
442. " " - straw thatch with turf ridge.
443. to 451. Fisher houses in Findhorn, Moray. Selection to illustrate use of straw thatch on turf with turf ridges and cement pointing.
453. Banff - post-war old people's housing along rig behind High Street.
454. Fintray, Aberdeenshire - post-war housing.
455. " " " " " " " "
456. Elgin - post-war housing at Bishopsmill.
457. " " - pre-war terrace housing.
458. Portsoy, Banffshire - post-war council housing.
459. New Deer, Aberdeenshire - council housing.
460. Inverurie, Aberdeenshire - post-war council housing.
461. Buckie, Banffshire - post-war council housing.