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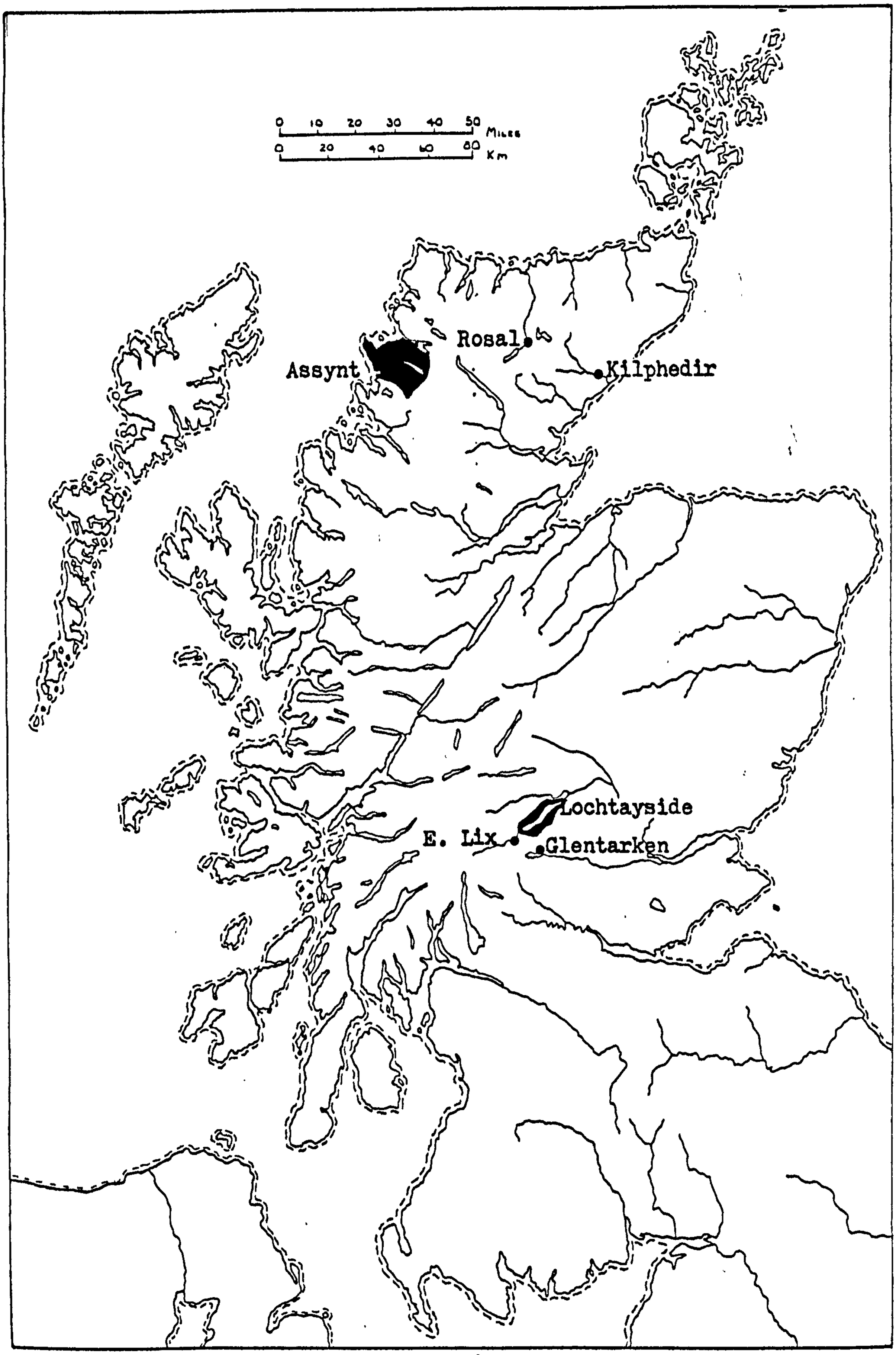
RURAL SETTLEMENT IN THE SCOTTISH HIGHLANDS, 1750-1850:

A COMPARATIVE STUDY OF LOCHTAYSIDE AND ASSYNT

VOLUME 1

ALEXANDER MORRISON

Thesis submitted in accordance with the requirements for the degree of Doctor of Philosophy in the Faculty of Arts of the University of Glasgow, February, 1985.



Location of sites studied.

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SUMMARY

The object of this study is to examine the rural settlement forms of the later 18th and early 19th century in the Scottish Highlands by means of documentary evidence and field remains. The main manuscript and documentary sources are described in Chapter 1 and the forms of field remains, their recording and analysis, are explained. A brief review of research into Scottish rural settlement over the past 100 years, particularly Highland settlement and the changing approaches and interpretations, is covered in Chapter 2. The developments of the period 1750-1850 had some of their origins in the 17th century, and the main historical events in the Highlands which had a bearing on agriculture, population and settlement from the late 17th to the early 19th century are reviewed in Chapter 3.

The major part of the thesis is a comparative study of Lochtayside and Assynt based on land surveys of the period 1769-1774 and this is dealt with in Chapters 4 to 10. Chapter 4 introduces Lochtayside in its physical setting and its historical development prior to 1769 is covered by references to early maps (particularly Pont and the Military Survey) and the history of the Campbells of Glenorchy/ Breadalbane. The rural landscape of Lochtayside in 1769 is discussed in Chapter 5, with reference to population, agriculture, forms of tenancy, rents and occupations. Chapter 6 examines and discusses the field remains of the earlier settlement pattern - the townships, settlement clusters, shielings, mills, etc. The physical landscape

of Assynt and its pre-1774 landowners are examined in Chapter 7 and the evidence of early maps is discussed. The picture of the Assynt rural landscape as interpreted from John Home's Survey of 1774 is presented in Chapter 8 with a discussion of land divisions, tenants and non-tenants. The surviving remains of the settlements and the special role of the 'sheelings' in the late 18th century Assynt agrarian economy are discussed in Chapter 9. A direct comparison of Lochtayside and Assynt in 1769-1774 is made in Chapter 10, looking at differences or similarities in physical geography, history, population density, landholding systems, settlement forms and survival of remains. Some extra evidence from other sites in Perthshire and Sutherland, including two excavated sites, is examined in Chapter 11 and compared with Lochtayside and Assynt. Conclusions on settlement groupings, forms of houses and buildings in the areas studied are made in Chapter 12, and 10 generalisations, which in themselves are a summary of the thesis in terms of settlement development, variation and survival, are presented.

INTRODUCTION

The following study is an attempt to reconstruct some of the rural settlement pattern of the Scottish Highlands in the 18th and early 19th century, and to identify, where possible, regional variations and the reasons for any such variations. The regions of Lochtayside and Assynt appeared to offer somewhat differing physical environments and appropriate documentary evidence. These were studied in some detail to allow comparison of human occupation in the later 18th century. For wider comparison of Perthshire and Sutherland, four other regions with deserted settlements of the 18th to early 19th century have been included (Chapter 11), three where fieldwork and excavation results have already been published and one where the present writer has conducted a small field survey.

In seeking to determine regional diversity it has been found necessary to look at more than settlement patterns. The questions of form, function and genesis can only be answered by attempting to reconstruct as many elements as possible of the cultural landscape of the areas concerned and for the period of time for which documentary and field evidence is available, taking into account the relative importance of those elements and their variable rate of survival.

The main unit of settlement examined here is the farm township, also referred to as 'farm' or 'township', including the buildings, the arable land, meadows and woods within the head dyke, where this existed, and the common

pasture and hill land beyond. The larger units such as the officiary (Chapter 5.2), possibly evolved from the earlier barony, are much less important in the overall settlement landscape of the later 18th century and were convenient groupings of townships for administrative purposes. Within the townships, the major element selected for close examination was the settlement cluster, the clachan of Fairhurst and Gailey. As will be seen, these varied widely in size,form, location and state of preservation. It would seem also that this portion of the township was not always regarded as important enough to merit exact recording by the early land surveyors.

In referring to the role of the physical environment, it is accepted that certain natural preconditions are necessary for human settlement but this does not imply any strict environmental control. In many parts of the Highlands man has had to come to terms with the environment, nowhere more so than in regions such as Assynt, but he has also left an enduring imprint in these areas of difficulty. "Durch ein besonders starkes Einwirken des Menschen können Kulturlandschaften auch über die Grenzen natürlicher Raumeinheiten hinauswachsen" (Troll, 1950). Due weight must obviously be given to human choice and the demands of human society - tradition and socio-economic conditions. The weight of historical evidence suggests that traditional elements survive in house and settlement forms only where they are not opposed to economy and environment.

The task has been, and will be in future, to examine as much of the past rural settlement landscape as has survived on paper and on the ground. In laying down some tentative rules for comparative research in settlement structures, Harald Uhlig (1962, 182) suggested: "It is important not to restrict the research to the settlements themselves, but to include always the whole pattern of their fields, pastures and commons, land-use, social structure, etc. - and, last but not least, the detailed exploration of the natural conditions. Only the evaluation of the whole of these small, but complex, basic-units (e.g. a township) will yield real understanding of the forms and functions of the cultural landscape with all its natural and historical implications. Only within this framework will the formal appearance of a settlement gain real significance as a manifestation of certain closely inter-woven social and natural facts". An attempt has been made to follow some of these guide-lines in the present study.

CHAPTER ONE

SOURCES AND METHODS

1.1 Sources

The two major sources of evidence in this study were documentary materials and field remains. The documentary sources can be sub-divided into published material in books and journals, and original manuscript sources such as collections of estate papers, plans and early maps. The early editions of the OS 1:10,560 maps have also been used. Early references to settlements through the medieval period and later have been included to indicate continuity, and to this end various records such as the Great Seal, Exchequer Rolls, Retours, etc., have been consulted.

There are few early maps of Scotland which can be used to demonstrate settlement patterns, and in most cases their value lies in indicating continuity of place-names and sites. The most important for this study are listed in the Bibliography of Manuscript Sources.

Among the more important published sources are the Old and New Statistical Accounts. The reports for the different parishes can vary greatly in depth and quality of information, no doubt depending on the interests of the ministers involved. Luckily the accounts for the parishes of Killin and Kenmore in Perthshire and particularly that for Assynt in Sutherland contained very useful material on agriculture, tenancies, population, etc. The Board of Agriculture's General Views of the Agriculture of the different counties were also important, and in particular

the account of the agriculture of the Central Highlands by Wm. Marshall (1794) is first-class, with references to house types and building techniques.

The most important materials of all are the collections of estate papers and plans, many now held in the Scottish Record Office, some still in the possession of the estate owners or their factors. The two main areas examined in this study are Lochtayside and the parish of Assynt. These regions were chosen because they were surveyed during the second half of the 18th century within the same 5-year period (1769-1774) and a set of maps, plans and notes was produced for each area. Studies of the two surveys have already been published. The Survey of Lochtayside, 1769, edited by Margaret M. McArthur, was published by the Scottish History Society in 1936, and the same Society published John Home's Survey of Assynt, edited by R.J. Adam, in 1960. The plans and descriptions of farms from the 1769 Lochtayside Survey are included in the vast collection of Breadalbane Estate Papers in the Scottish Record Office, and these are also listed in the Bibliography of Manuscript Sources. It has been possible to augment the Survey information by reference to rentals, lists of tenants, factors reports and Court Books among the Breadalbane Papers. The originals of the Assynt Survey are still held at Dunrobin Castle, but copies of John Home's plans and notes have been deposited in the Scottish Record Office. Adam (1960) has supplemented Home's plans and notes by including Rentals of 1759, 1766 and 1775,

lists of tenants and inhabitants, and the accounts of the Factor of Assynt, 1764-1773.

The documentary material for the two areas is greater than that for most Highland estates in the 18th century, but there are shortcomings in the type and amount of information recorded by the land surveyors involved (see Chapters 4 to 10). Reviewing the documentary record for settlement in the Highlands, Gray (1962, 146-7) observed:

> "... the student finds the documents full of exasperating gaps. The working tools tend to break when they are wielded... shifts among the tenantry do not necessarily record real human changes. Even the townships that remain steadily in view cannot be comprehensively understood from the records. They were joint farms and the names on the rental may not indicate the full roll even of people of joint-tenant status; and the rent of those who do appear on the roll does not necessarily indicate their true agricultural status. Below the joint-tenants, whether or not they appear on the record, there will normally be untold numbers of subtenants, cottars and servants. The numbers of such people cannot even be guessed for there was no recognised proportion between numbers of direct and indirect tenants, no normal relation between the size of the holding and the numbers who worked it or were attached to it. Thus the full delineation of numbers of families or population or even of holders of land, and certainly any attempt to disentangle the social relationships of the constituent families of the township, is impossible from the normal rent-roll. Fortunately, the impulse to plan and rearrange estates sometimes included the counting of heads and there occur occasionally more complete enumerations of population in relation to land, sometimes even complete descriptions of the tenurial conditions of all the families. Complete instantaneous pictures are revealed here and there, but once revealed they are gone; they cannot be followed through time. And partial revelation, such are the obvious capricious

differences among the recorded instances, merely emphasises the impossibility of generalisation. Finally, the maps of farms are normally too generalised; if picked out in detailed rigs, it is without indication of individual holdings. Indeed the whole conception of the Highland farm as a set of generalised shares unrelated to particular portions of land and liable to periodical lotting changes is against any effective mapping of individual holdings. Altogether, the systematic plotting of settlements both as aggregates of families or as social microcosms with intricate internal relationships is fraught with difficulty".

This is a somewhat pessimistic view of the value of documentary sources; the overall picture is one of a form of evidence which is still virtually untapped but has strict limitations as to detail and continuity, and particularly in details of actual settlements. As stated above, however, the quality varies from region to region, and it is still possible, from the documentary evidence, to produce a version of the rural cultural landscape for certain areas of the Highlands at different periods, and with some detail. This can be enhanced by the study of the second major source of evidence - the material remains. These remains, where they survive, consist of the dry-stone ruins of the long houses or byre-dwellings, smaller houses for cotters or crofters and farm servants, byres, barns and outhouses for ploughs, tools, etc. There were rick-, stock- or kail-yards within the clusters of buildings. Remains of lime-burning or corn-drying kilns were associated with one or more clusters, the corn-drying kiln occasionally built into the end of a building or kiln-house. Apart from the buildings, there are sometimes

traces of rigs of the former infield and outfield areas, of farm boundaries and of the head dyke which separated arable, meadow and woodland from rough grazing, moor and mountain. There are also vestiges of that more detached component of the settlement pattern, the distant (in Assynt not so distant) grazings or hill pastures of the shieling system, with occasional remains of small round, oval or sub-rectangular huts or bothies constructed of turf and dry stone.

The condition of the surviving remains varies from site to site. In general only one or two courses of dry-stone walling show where a settlement cluster once existed, but in some instances remains of buildings up to gable height have survived. In the parish of Assynt, for example, some remains of settlement clusters can be found on the former inland townships, where much of the present land use could only be described as the roughest of rough pasture. These have survived better (though often well concealed by thick bracken) than the remains on many former coastal townships where the change to the crofting system in the 19th century preserved continuity of settlement on or close to the same sites and made use of existing materials for rebuilding, etc., so that traces of earlier structures have often been obliterated or altered out of all recognition except where, here and there, an old building which might have been a house over a hundred years ago has been retained as a byre or storehouse, sometimes preserving an old style or building technique (e.g. Plates 58, 60 and 61).

1.2 Methods

The main descriptive material for the farm townships - their sizes, types of land, numbers of tenants, form of agriculture, etc. - was extracted from the Breadalbane and Assynt papers in the Scottish Record Office. Some of the material for the comparative sites in Chapter 11 has already been published, but for one area - Glentarken on Lochearnside - some information is in the Forfeited Estates Papers whereas documents and plans for the later 18th - early 19th century are still held in the Factor's Office of Drummond Castle Estates at Muthill.

The plans of individual townships were redrawn from the original surveyors' plans. The Lochtayside plans are at a scale of one inch to six Scots chains or approximately twelve inches to one Imperial mile (1:5337), and the Assynt plans are at a scale of one inch to twenty-four Scots chain or approximately three inches to one Imperial mile (1:21,346). The scale of the Assynt plans is thus only 1/4 of the scale of the Lochtayside plans and this makes comparison of building sizes, orientation and location extremely difficult. For some sites an equivalent section of the first O.S. 6" (1:10,560) map has been drawn beside the 18th century plans for comparison of location, orientation, number of buildings, surviving remains, surviving boundaries, etc. For larger areas, the townships with their boundaries and settlement locations have been redrawn on the G.S., G.S. 1:25,000 map which has the reduced detail of the 6-inch sheets plus interpolated 50-foot contours.

Fieldwork in the main consisted of an examination of the various sites discussed in Chapters 4 to 11 in an attempt to trace possible surviving remains of what was surveyed in the 18th - early 19th century. In each area a number of sites was examined in detail. The remains were recorded by running a linen or steel tape as near as possible across the centre of the site and taking offsets at regular intervals along its length. The plane table was not used because of the great amount of time that would have been involved in placing and replacing ranging poles on ruins too low to be visible from the surface of the table. Buildings in the plans have been shown, for speed and simplicity, with straight walls and right angles where these did not, in fact, exist. True representations of wall structures and angles can be seen in Figures 88 and 92. Measurements were of the exteriors of buildings as the actual dimensions of most interiors were obscured by fallen walling. In planning the selected sites, their locations, dimensions and orientations were checked against the O.S. 1:10,560 or 1:10,000 maps.

In many cases, there is no doubt that the present remains represent settlements as depicted (and allowing for the inaccuracies of the time) on the old estate plans. But there are many other sites where no trace at all remains of settlements which were clearly marked on the old plans, or where seemingly very old remains exist which were not recorded on the old plans. There is obviously some reason

to question the consistency or accuracy of the land surveyors but in fairness we do not know what their instructions or exact intentions might have been. Non-dwellings may not have been recorded in some areas, while buildings which were deserted or partly ruined were probably ignored completely.

Briefly, fieldwork revealed three types of remains. Firstly, the survivals of the settlements recorded in the old estate plans: the lower courses of dry-stone buildings on the same sites and, as far as can be determined, having the same orientation as on the old plans. Secondly, clusters and individual structures which were built after the surveys - these do not appear on the old plans but they have been recorded, along with some of the surviving earlier structures, on the first editions of the O.S. 6" (1:10,560) maps appearing around the mid-19th century. Thirdly, low, turf- and peat-covered rectangular and subrectangular foundations and straggling field dykes, none of which appear on the old estate plans or later O.S. maps, but which might be traces of early- or even pre-18th century settlements and field systems.

CHAPTER TWO

SCOTTISH RURAL SETTLEMENT STUDIES: A BRIEF REVIEW

The history of research into Scottish rural settlement patterns and economies is not a long one. There are some early descriptions of the type of society, its agriculture, tools and habitations, but many of these are anecdotal or sometimes couched in terms of the primitiveness of the 'old days'. The reports on the agriculture of the various counties, and the Old and New Statistical Accounts are not in themselves research, but they provide a vast quantity of original information which began to be appreciated by historians and others in the later 19th century. With the example of Seebohm's (1883) study of English settlements and field systems, various writers came to look at settlement origins and development in the last quarter of the century.

The writings of Sir Henry Maine (e.g. 1871) influenced later settlement historians and geographers to a certain extent. His book, Village Communities in the East and West, was a collection of six lectures, mainly on jurisprudence and a comparison of the law and landholding organisation in India and the west. There is little on Scotland, apart from a discussion of the 'Burgess Acres' at Lauder, but the 'tribal system' of landholding is discussed and Maine suggests that clan organisation developed before family organisation among the "cultivating communities of the Teutonic (including the Scandinavian) races and of the Hindoos" (Lecture 5). Seebohm's book (1883) also had a section on the tribal system in Ireland and Scotland, but

there is little Scottish evidence, apart from some use of Skene's Celtic Scotland and references to the Brehon Laws. John Rae mentioned the influence of Seebohm's work in his paper on 'The Scotch Village Community' in the Fortnightly Review in 1885. Rae illustrated the value of the Board of Agriculture's Reports and the Statistical Accounts in obtaining a picture of the general features and working of the 'Scotch village community'. He made some regional comparisons of land-working techniques and discussed the Birley Court at length, but his main theme was the village community in the sense of Maine and Seebohm, and he had not yet reached the point of appreciating the non-village structure of most Highland settlements. An extract from his paper is included in Appendix 28.

The work of G.L. Gomme (1890a,b) is more interesting in its discussion of Scottish examples, if more extreme in its conclusions. In his study of archaic types of society in Scotland he makes use of the Agricultural Reports and Statistical Accounts to a very large extent (1890a). He quotes evidence for settlement and agriculture on Harris in 1795, and William Marshall's description of houses in Central Perthshire (Appendix 28). These he uses to show the difference between the tribal community and the village community: on the one side, the community with "village rights, village law, village assembly, and all the incipient institutions which may develop into burghal towns of commercial importance. Secondly, the tribal community,

joint tenants, as they have become now, of one landlord, clustered into houses which make a farmstead, and possessing in the so-called cottar towns dependent servants whose labour belongs to the farmstead" (Gomme, 1890a, 161). He comes to the conclusion that, in the archaic society, joint tenancy has replaced joint kinship. The cottar groups are seen as "minor village communities in serfdom under tribal communities". It is perhaps worth quoting in full Gomme's characteristics of archaic societies:

1) The relationship of all the members, either actually or in theory, i.e. the clan or tribe;
2) The gradual displacement of kinship, as the basis of cohesion, by land - i.e. the village;
3) The ownership of the land and all except personal goods by the community and not by the individual;
4) The periodical, generally yearly, division of the arable lands by lot to every owner of a tenement;
5) The common rights of pasture;
6) The general community of interests conveyed by the legal axiom, "joint in food, worship and estate".

The thesis is worthy of discussion and consideration but Gomme weakens his arguments by his attempt to connect - "the Scottish village community with the village communities of Russia and India, and hence with the earliest social organization of the Aryan race". Gomme's book, The Village Community (1890b), was obviously strongly influenced by the work of Sir Henry Maine mentioned above. This can be seen in some of the chapter titles:

1) The village community as a primitive institution;

2) Race-elements of the village community;

3) Methods of dealing with the British evidence;

4) The non-Aryan elements in the English village community;

5) The homestead of the village community;

6) Tribal communities in Britain, etc., etc.

Again the Statistical and Agricultural Accounts are used, also Martin Martin's description of the Western Isles. Some interesting points are made, but a theory has to be proved: basically the idea of the survival of non-Aryan, archaic, tribal elements in the development of the Aryan village community. Comparisons are made with village communities in India. The inhabitants of the isle of Harris are suggested as having possibly 'Ugrian blood' and some of their customs are compared with those of the 'non-Aryan' Todas of the Nilgiri Hills in south-west India. Archaic ceremonies among village populations are seen as - "the surviving relics of the savage ceremony which took place in Aryan village communities because of their retention of the non-Aryan tribes in their midst" (pp.113-114). Time, distance, environment and independent development are swept aside in the attempt to show the tribal community as having much that is archaic and "pre-Aryan" or "non-Aryan" and that - "communities of all Aryan stocks are proved to have possessed the germ of the villages of serfs resting under their head-ship".

The first to augment mainly documentary/historical sources with cartographic material on a large scale was August Meitzen, whose Siedlung und Agrarwesen... had far-reaching effects following its publication in 1895. Meitzen had often used large-scale maps of field patterns and settlements when settling landlord/peasant disputes in his capacity as a Prussian judicial officer, and in his major work (3 volumes plus atlas) he collected systematically a wealth of topographic and other documentary material on which to base broad conclusions. Basically, he attributed settlement and field patterns to certain racial or tribal groups. In this 'ethno-genetic' theory Meitzen saw the single farmstead or Einzelhof with rectangular, block-like field pattern as Celtic in origin, while the grouped settlement or Dorf was supposedly introduced by Germanic invaders. The patterns were seen as the result of systems which had remained more or less unchanged from the time of the Germanic 'landnam' until post-medieval times.

The theory does not bear close examination. The inconsistencies were stressed by Albert Demangeon (1927). "In spite of the prodigious accumulation of interesting facts that is found in Meitzen's work, it collides with unsolvable contradictions. For instance, it has not been demonstrated that concentrated settlement is the exclusive prerogative of the Germanic peoples. We see it among the Slavs who, as Meitzen recognizes, live in villages of quite particular form, but definitely in villages; in the possession of

Celtic settlers in Great Britain; in the possession of the Romans ... and in the possession of the Gauls, who lived in villages (vici) as well as on isolated farms. Among the Helvetii, Caesar counted no less than 400 vici, which he clearly distinguished from isolated houses (aedificia). Neither is it demonstrated that isolated settlement is peculiar to the Celts, since in the heart of the Germanic country, to the west of the Weser, all of the population lives in dispersed houses ... Moreover, even if facts supported the theory of ethnic influences, the solution of the problem would only be deferred, because we would still have to explain why a particular people adopted a particular settlement form ... it is not ethnic traditions that impose their law, but rather economic necessities. One must look for an explanation in the different epochs of colonization and the nature of the respective agricultural economies".

The search for racial origins for settlement and field patterns did not cease with Meitzen's monumental study. H.L. Gray, in his English Field Systems (1915), gave currency to the idea of a mainly Celtic infield-outfield system developing in a highland environment. He devoted only a few pages to Scotland but suggested clean-cut distinctions between the open-field system of the Midlands of England and the systems to be found in Wales and Scotland. Primary differences were seen to be caused by racial factors, secondary differences were ascribed to environmental factors. In a recent re-assessment of Gray's work, Baker (1965) noted:

"Having labelled the Midland system Anglo-Saxon, Gray called the Kentish system Roman, the infield-outfield system Celtic, the East Anglian system he thought similar in origin to the Kentish but modified by the Danes, and, having exhausted the supply of invading races who could be held responsible for the enigmatic open fields of the Lower Thames Basin ... he concluded that the system there was a hybrid of the midland and Kentish systems". Gray used the 'retrospective' method, using descriptions of field systems which were most complete but relatively late, then seeking a medieval prototype or attempting to prove that changes had taken place. In his own words (1915, 50):

"This method of trying to ascertain early conditions largely through the use of late evidence is not without danger ..."

Gray's work gained wide acceptance and influenced rural settlement and field-pattern research until comparatively recent times (e.g. Kirbis, 1952). However, it is known that the infield-outfield system existed in many non-Celtic regions (e.g. Uhlig, 1961) and in the north of England, whence it may have spread into Scotland at a late date (Barrow, 1962; Dodgshon, 1973). Matley (1966) has used linguistic evidence to suggest a Germanic origin for many of the terms associated with infield-outfield agriculture.

A pioneer in the use of old estate documents was Isobel Grant. Her Everyday Life on an Old Highland Farm, 1769-1782 (1924a) was a study of agricultural society and economy in upper Strath Spey based on the account book of William Mackintósh

of Balnespick. It lacks any plans of the townships but is nevertheless a fascinating description of finances, farming and tenants at a period of major change in the Highlands. She published early papers on Highland estates, rural industries and the openfield system (1924b, 1925, 1926a). The latter paper had a very thorough examination of openfield agriculture and its organisation. This was followed by a study of the social effects of the agrarian reforms and enclosure movement in Aberdeenshire (1926b). Her two major works were Social and Economic Development of Scotland Before 1603 (1930) and The Economic History of Scotland (1934), the first such studies with a depth of knowledge on settlement, society and agriculture in the Highlands. There is no casual acceptance of unchanged Celtic origins in these surveys. In a reference to Gray (1915) she states: "What we should look for in Scots agriculture is a gradually evolved system, in process of development during the great changes of the historic period, rather than a cut-and-dried "Celtic system", such as certain writers have postulated". Group settlements with intermixed strips of cultivation, whether Scottish, Irish, Anglian, Saxon or Danish - "... were all evolved because of the early peoples' sheer need for mutual protection or mutual help in managing the clumsy tools and fenceless land of the period. The system of cultivating the land in mixed strips is a rational method in cases where there is communal cultivation, where the agriculturalists are so primitive

in their technique that they cannot ameliorate the natural variety of the soil - cannot drain wet patches or sweeten sour ones, etc. - and where they are so dependent upon crops of their own rearing that they dare not risk having all their corn upon an exceptionally wet or dry piece of land". Scotland did not benefit from the more settled conditions of the English manorial system and Grant suggests (1930, 108): "... that the Scots system of agriculture, which combines the two most primitive types of agriculture - temporary intakes from the waste, and constant tillage - was largely due to this absence of the organisation of the manor, allied to a type of country that was unsuitable for the extended use of perpetual tillage (i.e. the one-field system) and to certain facts in the early history of the country, viz. the fusion of races - Angles, Gaels, Picts and Normans - in different stages of development, and a primitive state of rural society and, presumably, of agriculture, crystallized by the sudden introduction of a comparatively advanced type of social organization with the introduction of the feudalizing influences of the Normans". This critical approach to the origins of Highland agriculture and settlement is maintained as late as her Highland Folk Ways (1961), where, discussing the origins of run-rig, she notes that the Gaelic term Roinn-Ruith was rarely used:

"I have generally heard individual rigs called Imirean and the nearest equivalent to 'infield' and 'Outfield' were Talamh Traibhta, ploughed land, and Talamh Ban, fallow land.

On the other hand rig, a ridge, was a common Scots and north of England word, as for instance in the song 'the lea rig'" (Grant, 1961, 90).

The great upsurge in the use of old estate papers, plans and maps in tracing rural landscape and settlement change came with the work of Geddes (1938, 1948, 1949a,b, 1955), Lebon (1946a,b, 1951,1952) and Third (1955, 1957). The value of the documentary evidence held by the Scottish Record Office in Edinburgh and by many Estate and Factors' Offices in the Highlands and Lowlands was demonstrated by studies of individual areas showing rural landscape changes in the 18th-19th centuries. As yet, however, there were no major attempts to compare the physical remains of settlements in the Highlands with the detail shown on the early plans.

An essential adjunct to the attempted reconstruction of the Highland cultural landscape of the 18th century and earlier, was the study of access, communications, roadways, and bridges. This was undertaken by Haldane (1952, 1962) in detailed reviews of Scotland's system of drove roads and of the use of roads in the Highlands from Wade to after the Commission on Roads and Bridges in the Highlands of Scotland. A recent general study, including roads, bridges and wheelless transport, is Fenton & Stell (1984).

The value of studies by non-Scottish, non-British researchers depends greatly on the source material being used. One such study was that by Wolfgang Kirbis (1952) in which settlement and field patterns in Great Britain were examined in the light of German settlement research.

Scotland was covered in 6 pages of an 81-page study. Kirbis was obviously impressed by Gray's work of 37 years earlier and quotes him frequently. He has, however, unfortunately missed the point of many of the terms used to describe the Scottish system. Run-rig is equated with 'gavelkind' or Realteilung - the inheritance of land equally among all heirs - as the reason for fragmentation of holdings, rather than the periodic re-allocation of different qualities of land. There is also confusion between the crofter of the 18th-19th century system and the crofter of post-clearance, post-improvement, post-Crofter Commission times. Kirbis has little or no understanding of the Highlands. He mentions the county agricultural reports and reproduces one plan of a Lowland site from Geddes (1938), but there is an over-simplistic comparison of the settlement cluster and associated run-rig infield/outfield system with the Drubbel and Esch pattern of N.W. Germany.

By contrast, the work of Harald Uhlig (1956, 1959a,b,c, 1961, 1962, 1964) shows a close knowledge of the Highland and Hebridean landscape, the result of fieldwork in those areas. He, too, noted similarities between the Scottish settlement pattern and that of the 'Esch and Drubbel' of N.W. Germany, but he referred to form, rather than any suggested relationship in social organisation. Uhlig's most important contribution to the study of settlements, and a warning against the dangers of looking for simple racial origins for differing patterns, was a paper (1961)

on old hamlets with infield and outfield systems in Western and Central Europe.

Aspects of the Highland shieling system have been described by visitors and natives since the 18th century (see 6.4 and 9.4 below) but little serious study was attempted before about 40 years ago. Kissling (1943, 1944) demonstrated the importance of the shieling as an integral part of the settlement and socio-economic structure on Lewis and Harris, and the influence of shieling structures on the development of the Black House. Victor Gaffney (1959, 1960) used old estate documents to reconstruct the shieling system in the 17th and 18th centuries in the north-east of Scotland and particularly in Strathavon in Banffshire. Whitaker (1959) recorded and mapped references to shielings throughout the Gaidhealtachd from 1500 onwards. The work of MacSween and Gailey (1959, 1961) in North Skye produced detailed evidence of transhumance in that area, and the partial excavation of a shieling-hut site showed superimposition of huts on the same site over a considerable period of time. A survey of shieling grounds and bothies in various regions of the Highlands, Hebrides and Orkneys was produced by Ronald Miller (1967), and it showed some regional variation in structures and systems, particularly as between Assynt, North Lochtayside and Rum. The survey as a whole is an excellent guide and basis for possible future work. A more recent survey of the shielings of Rum (Love, 1981) has revealed remains of at least 380 huts from sea level to about 450 metres OD and a suggestion that cellular huts

were the oldest, followed by chambered and rectangular forms.

The work of Gailey (1960, 1962a,b, 1963) more than anything else emphasises the need for documentary research to proceed hand in hand with fieldwork. He has been able to suggest forms and patterns for clusters and settlements, particularly in Argyllshire, from estate papers, Roy's Map and the various maps of the Ordnance Survey. This documentary evidence was checked in the field with visits to remains of many deserted settlement clusters, which were seen as amorphous or 'Linear/Rectangular' in form, and long narrow buildings were suggested as older than shorter wider forms. Gailey also noted that no surviving example of the peasant house was known to pre-date the 18th century. The difficulties of finding such remains or in attempting to correlate old plans with field remains can be partly explained by the nature of the change that took place in the Scottish landscape, a change explained forcefully in a paper by Caird (1964) as involving a revolutionary rather than a slow evolutionary process.

Among the most important work on Highland rural settlement in recent years must be that of Fairhurst (1960, 1964, 1967a,b, 1968, 1969, 1971). He defined many of the problems in his 1960 paper and attempted to solve some of these by excavation at Lix in Perthshire and Rosal in Sutherland (see Chapter 11 below). The results of these investigations were to show that nothing could be traced on the ground belonging to a period earlier than the last

quarter of the 18th century at Lix and to the late 18th/ early 19th century at Rosal. However, greater detail of the dimensions and functions of various structures was obtained than could be derived from fieldwork alone, and it was possible to show something of the complexity of the changes brought about by the reorganisation of the clusters at Lix in the 1790's and 1820's. Above all, the evidence revealed just how completely mid-18th century structures could be obliterated when this was part of deliberate policy. On the lack of evidence for pre-18th century settlement, Fairhurst (1967a, 150) stated: "In practice, neither at Lix nor at Rosal could we find traces of medieval settlement in spite of prolonged search. The probability is that a great deal of fieldwork will be necessary before suitable localities are found for this purpose. We ourselves have only made a very small beginning, but surely, somewhere, sites will have survived to throw light on periods earlier than the 18th century, where desertion occurred prematurely by reason of massacre, plague, famine, or even loss of soil fertility. At least it should be the faith of the field archaeologists that such places must be there for the finding and techniques must be developed to deal with them".

The problems of origins and definitions of runrig were discussed at a conference of the Agrarian Landscape Research Group in 1969 (Whittington, 1970). Attempts were made to provide some answers to the questions: How did runrig arise? How did runrig operate? Where did runrig operate? How was runrig destroyed? What was runrig replaced by? The conclusions were that some general answers could be

provided for all of these questions, but that detailed individual studies of small areas were still necessary to fill the gaps in our knowledge. The main causes of confusion over runrig were summed up by Whyte (1978) as being due to earlier misuse of the term to describe the infield-outfield system or the ridge and furrow ploughing and to a failure to distinguish between inter-related but distinct elements of the rural landscape such as the field system (infield-outfield), the technology of ploughing (ridge and furrow) and the system of land organisation (runrig). Whyte also noted that confusion had been increased by deriving information on runrig from sources already late in date when consolidation and enclosure were well advanced.

Discussion and reappraisal of the speed, duration and impact of the Scottish 'agricultural revolution' in relation to changes in England (Whittington, 1975; Mills & Parry, 1976; Adams & Whyte, 1978) produced useful data on changes in agriculture and settlement as early as the 17th century and on Scotland's distinct and different history from that of England, but the emphasis was again on the need for more detailed documentary research.

The work of Adams (1966, 1967, 1968, 1970, 1971, 1973, 1975, 1976a,b, 1979, 1980) has continued the emphasis on the importance of estate plans in the study of the rural landscape, and he has greatly aided the researcher in his publication of descriptive lists of plans in the Scottish Record Office. An interesting contribution to the history of landscape change has been Adams' papers on the role of the Scottish land surveyor in influencing some features of

that change. The studies do not, unfortunately, assess the qualities and variability of the information provided by the land surveyor, since he is being examined by Adams as an innovator rather than as a recorder, but the sheer increase in numbers of surveyors in the second half of the 18th century is further evidence of the progress and development of landscape change and improvement.

A great deal of research into the evolution of rural settlement in the Lowlands has been carried out in recent years (e.g. Whyte, 1975, 1979, 1981a,b) and some of the findings are relevant to work in the Highlands, for example in Whyte's (1981a) warning that the stereotyped image of the pre-Improvement 'ferm-toun' possibly concealed differences in social structure, even in settlements of the same size. The work of Parry (e.g. 1975, 1976, 1981) on climatic change and upland settlement in southern Scotland may also have some pointers to offer for future work in the Highlands. He has produced evidence for an expansion of settlement to high limits around the Lammermuirs during the early medieval period with the colonisation of former shieling sites. This was followed by the abandonment of many marginal settlements, particularly during the 16th and 17th centuries, with climatic deterioration as a possibly significant factor.

The value of Forfeited Estates papers in elucidating conditions in the Highlands after the '45 was amply demonstrated in John Mason's paper published in 1947, and this research has been continued more recently in the work

of Virginia Wills (1973, 1978). She has produced tables of statistics of tenants, size of holdings, structure of families, types of land held, numbers of Gaelic speakers, etc., from the Reports of the Commissioners of the Annexed Estates, invaluable in any study of the social and economic history of the Highlands. Dodgshon (1973, 1975, 1977, 1979, 1980a, b; 1981) has continued the study of the nature and development of infield-outfield in Scotland and also the changes in Scottish township organization during the medieval and early modern periods, particularly the evidence for early splitting of townships. This has yielded a mass of 'Easter' and 'Wester' prefixes and a scarcity of 'North' and 'South' elements. Dodgshon (1977) has suggested that the emphasis on east and west names might have been due to a form of land division similar to the Scandinavian solskifte system.

This brief survey has shown that the study of rural settlements has developed from a period of many sweeping generalisations about origins, often from an 'ethnogenetic' viewpoint. For a long time this meant that the search for the origins of individual rural settlement forms was affected by over-emphasis on the stability and continuity of regional settlement patterns through time, and thus there was a tendency to stress monocausal explanations. Research is now concentrating on detailed studies of small regions, different types of evidence (fieldwork, archaeology, documentary research), or single elements (field systems, transhumance systems, vernacular buildings, demographic

studies, climatic fluctuations, etc.) of the rural settlement complex. Whether or not this method of research will lead to a clear answer on origins is probably less important than the growing knowledge of how the various elements functioned together at different times in the past.

CHAPTER THREE

THE SCOTTISH HIGHLANDS, 1690-1850: HISTORICAL DEVELOPMENTS AND THEIR EFFECTS ON SETTLEMENT AND ECONOMY

Some of the most spectacular changes in the Scottish Highland rural landscape did not take place until the later 18th century, but the evolution and the provisions for some of them can be traced back to the 17th century. Two main facets of change, which might have been introduced independently, were suggested by Whyte (Adams and Whyte, 1978) as technical, such as the introduction of enclosure, new crops, rotations and improved implements; and organizational, such as the modification of farm structures and the reshaping of rural society. Various historical events shaped and accelerated many of these changes, but other factors, including Highland conservatism and tradition, slowed the process considerably.

3.1 Access and Climate

> "Around 1690, the population of Scotland numbered about a million - one fifth of the present numbers, and distributed much more evenly than is the case today ...
> To imagine what their world looked like requires an effort of the historical imagination. To begin with, one must efface from the map almost all traces of the existing road system, and substitute for it a network of tracks, meandering between settlements - routes pockmarked with the hooves of animals, fit for cattle, suitable for a tough pony with panniers slung over its back, or drawing a sledge over the slimy mud, but normally impassable to four-wheeled carts ...
> North of the Tay, however, even the main routes, like the one rather grandly described on Edward's map of Angus in 1678 as 'the King's Way betwixt Dondei and Brechin', were not passable to wheeled vehicles. The state of land communications was both a reflection and a cause of peasant subsistence. Had there been more goods to move, there would have

> been an incentive to improve the roads. Had the roads been better, farmers would more readily have attended markets to sell their grain. It was not until the 18th century that the vicious circle was broken".
>
> (Smout, 1969, 119-120)

The last few sentences suggest another reason why grain crops were mostly consumed within the farm townships and why, other than for climatic reasons, they were not produced in the quantities known in the east and south-east of Scotland. But climate was a crucial factor, and never more so than in the decades around 1690. In his book Europe in Crisis, 1598-1648 (1979), in the section headed 'The Little Ice Age', Geoffrey Parker notes an almost total absence of records of sunspots between about 1645 and 1715, and the rarity of sightings of the aurora borealis, even in Scotland, in the same period. "It was as if the sun's energy was diminished". Variations in the amount of radiocarbon in the earth's atmosphere for this period have also been recorded and an increase in the radiocarbon content of the annual growth-rings of trees of known age, a phenomenon usually associated with a reduction in solar energy, has been noted for the period between 1645 and 1715. The records of bad weather came from various sources: "In Europe, travellers in 17th century Scotland noted that the main peaks of the Grampians and the Cairngorms retained their snow cover all year round; mariners taking sea-temperatures on their summer voyages between Shetland and the Faroes recorded polar water far to the south of its present location" (Parker, 1979, 21). In his study of climate in recent history, Lamb (1982, 212)

noted the situation in relation to farming in Scotland; "... from about 1670 the situation deteriorated again, with tremendous snows and frosts in that year and huge losses of sheep in the thirteen days of continuously drifting snow in early March (by the modern calendar) 1674. Worse was to come in the last years of the century, when between 1693 and 1700 the harvests (largely oats) failed in seven years out of eight in all the upland parishes of Scotland". Ministers writing 100 years later in the Old Statistical Account referred to these times when people fought over nettles for food. "In parishes all over the country from one-third to two-thirds of the population died - a greater disaster in many places than the Black Death - and great was the fear of being buried in a mass grave. Some whole villages and whole tracts of the countryside were depopulated at this time" (Lamb, loc. cit.). Martin Parry's work on climate change and settlement limits in south-east Scotland bears this out. His temperature and rainfall curves (Parry, 1975, Figure 4), albeit based on incomplete records, show a decline which includes the late 17th/early 18th century. Over a longer period, he claims to have identified four major phases: a 'secondary climatic optimum' (AD 1150 to 1250), a medieval deterioration (1250 to 1550), a cold period (1550 to 1700) and recent amelioration.

Evidence for 18th century weather in the form of a register kept by a Dr Reid of Peebles was listed by Handley (1953, 33). The two decades before 1740 had been warmer

and drier, the bad years following this were:

Year	Wet Days	Year	Wet Days
+1740		1774	209
+1756		1775	200
1766	169	1776	192
1767	190	1777	203
1768	198	+1778	227
1769	200	1779	159
1770	202	1782-83	
1771	181	+1796	
1772	203	+1799-1800	
1773	171		

+ "Years of great distress approaching to famine"

It might be that the conditions of these difficult years were partly responsible for the abandonment of building in turf or less durable materials in some regions and the gradual move to construction wholly or partly in stone; other factors were undoubtedly involved in the transition, such as the decline in clan warfare leading to more stable, settled conditions.

3.2 The Jacobite Uprisings and Their Consequences

Apart from the major risings of 1715 and 1745, the last real battle which could be described as clan warfare took place in 1680 at Allt nam Mearlach in Caithness, between the Campbells of Breadalbane and the Sinclairs, when John Campbell, first Earl of Breadalbane, tried to enforce his claims to the Earldom of Caithness. An

interesting aside on this is the test the Breadalbane men were supposed to have performed, before marching north, of jumping, fully armed and in marching order, over a stretched-out double plaid (Gillies, 1938, 161).

The first half of the 18th century saw a continuation of unrest in the Highlands, not so much as a result of clan differences but rather because of support for the Jacobites, whose main strongholds were in that region. The rebellions may have been to some extent:

> "... provoked not by loyalty to the Stewart cause but by hatred of the great clan Campbell, whose steady aggrandisement at the expense of smaller, weaker and less politically minded clans was a cardinal objective of Government policy: after all, the political managers of Scotland from 1725 to 1761 were successive Dukes of Argyll, and the idea of using this clan to hold down and civilise its neighbours had been part of royal policy since the days of James VI"
>
> (Smout, 1969, 223)

One immediate result of the rising of 1745-46 was the abolition of heritable jurisdictions in 1747. These were feudal powers held originally from the Crown by which chiefs or landowners exercised arbitrary powers over clansmen, tenants or vassals within the limits of their territories, and could punish them by fines, scourging, imprisonment or death without interference of the common law. The loss of these powers was a major blow to the clan system. When clansmen could no longer legally be ordered to follow their chiefs, the possibility of engaging in inter-clan warfare was reduced and the position of the chief was drastically altered. One aspect of the change was noted by Samuel

Johnson in 1773: "The chiefs, divested of their prerogatives, necessarily turned their thoughts to the improvement of their revenues, and expect more rent as they have less homage ... When the power of birth and station ceases, no hope remains but from the prevalence of money".

After the uprising of 1715, a number of chiefs forfeited their estates and a group of English and Scottish commissioners was set up to administer these. The estates were sold to land speculators who became bank rupt in 1729, and this mismanagement on the part of the commissioners lost the Treasury a considerable sum of money. After the '45, and by the Annexation Act of 1752, a greater number of Jacobite chiefs and landowners were deprived of their lands and a much more competent body was set up - the Commissioners of the Annexed or Forfeited Estates - which was to administer the estates and "... cause such lands to be surveyed, and proper plans to be made thereof, setting forth the Extent and different Qualities of the Grounds, the several Advantages and Disadvantages arising from their Situation, and what Improvements may be made upon the same" (terms of the Act of 1752). The road system, begun by Wade between 1726 and 1733, was extended to a greater area of the Highlands. "Through the S.S.P.C.K. (Scottish Society for the Propagation of Christian Knowledge, founded in 1709), the Board of Trustees of Manufactures (Board of Trustees for Fisheries and Manufactures in Scotland, established in 1727), and the Committee of Forfeited Estates, new and more strenuous

efforts were made to convert the Highland population to Lowland values" (Smout, 1969, 225).

It would be wrong to assume that the end of the Highland clan system and its associated economic and social traditions was brought about solely by the Jacobite uprisings.

> "It is commonly held that the old Highlands died on the field of Culloden in 1746, and that the subsequent statutes abolishing hereditary jurisdictions, military followings, Highland dress, and the rest destroyed the clan system. This is a naive and superficial view, which a study on any part of the Highlands would show to be false. What destroyed the old Highland social and political structure was its growing involvement in the general cultural influence of their neighbours to the south, that is England and the Scottish Lowlands. This influence, expressed in speech, manners, clothes, religion, political sympathies and activity, trade, seasonal migration, and so on, was at work in the Highlands long before 1745 and reached its climax considerably after".
>
> (Cregeen, 1968, 165)

Checkland (1964) saw the clan as the only possible system for social organisation in the Highlands:

> "Not for the first or last time a society was involved in a closed circle from which escape was only possible when it was broken by forces outside itself. The great tragedy was that, because of the premium placed upon fighting supporters, such a society produced labour-intensive activities to an almost ludicrous degree, together with an element of under-employment that would be hard to rival. Moreover isolation made difficult the extension of the Presbyterian church in the Highlands; Roman Catholicism there was revived over considerable areas, and the Episcopalians were strong in pockets. Here was a reservoir of manpower, inured to minimal conditions, highly susceptible to the cry of loyalty, by no means accepting the established church of the land, incapable of reasoning about the implications of what it was asked to do, and to whom weapons were at least as customary as tools".
>
> (Checkland, 1964, 306)

Other factors of the pacification of the Highlands were beginning to take effect just at the time when its manpower was no longer required for internal warring.

> "The bringing of peace released the Highlands from the iron circle of insecurity within which, in its chaos, it had been bound. Demographic forces, perhaps at work before the mid-century, accelerated, aided by the introduction of the potato; at the very time that men were made redundant they made themselves more numerous".
>
> (Checkland, loc. cit.)

3.3 Improvements and Population Increase

Agricultural change had also begun much earlier than the mid-18th century.

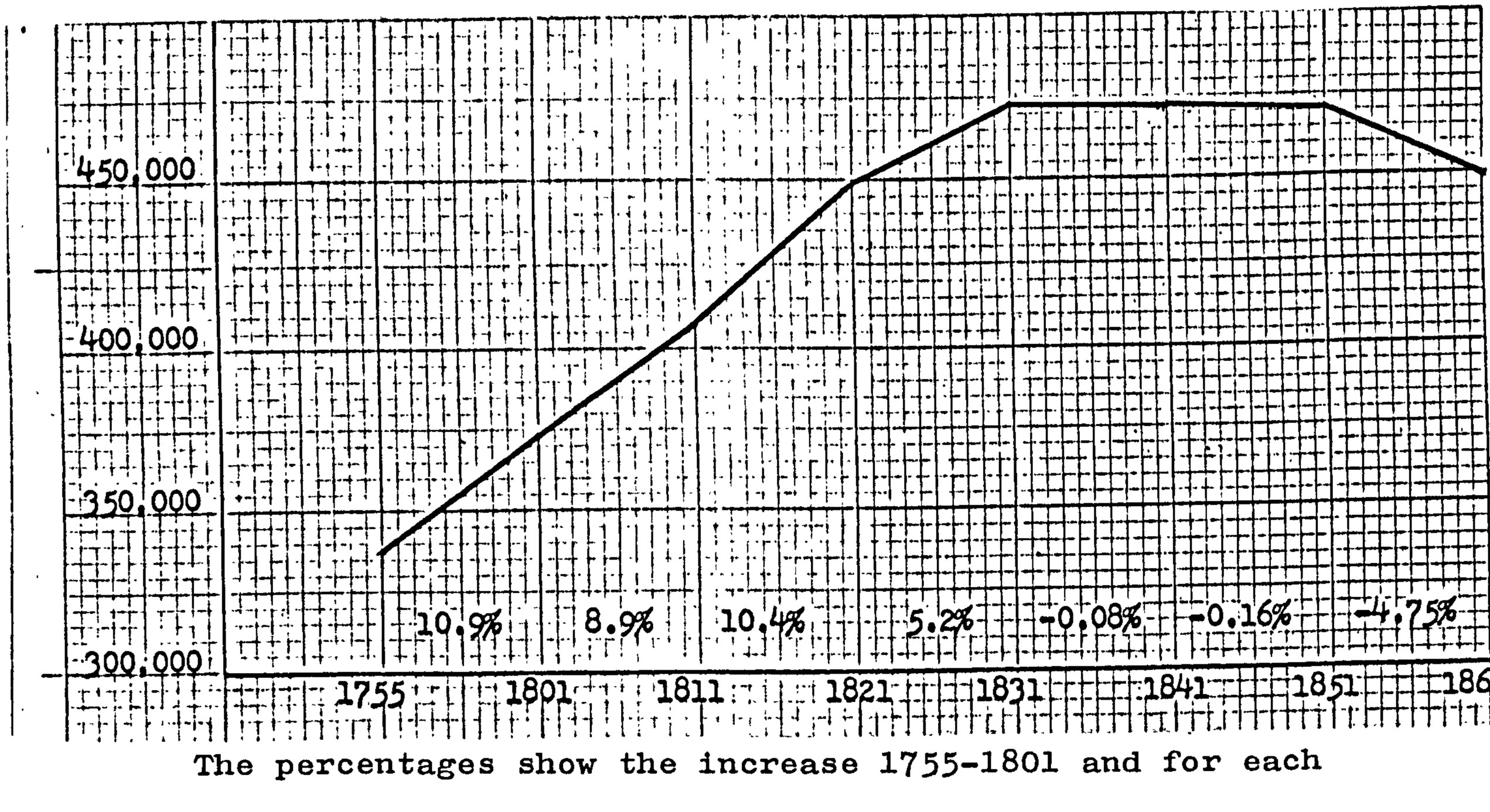
> "One of the fundamental human decisions which has shaped the present landscapes was the series of Enclosure Acts of 1661, 1685, 1695, and the Division of Commonties Act of 1695 passed by the pre-1707 Scottish Parliament. The effect of these Acts was that any laird could enclose his lands without recourse to negotiating agreements with his tenants or, as in England, the long process of securing an enabling Parliamentary Act authorising individual enclosures. These Acts were basic to the speed of transformation of individual estates, as was the fact that at the time there were fewer than 8000 considerable proprietors in Scotland".
>
> (Caird, 1964, 73)

The 'Act anent Lands lying Runrig' of 1695 enabled proprietors to consolidate and enclose their lands, the Division of Commonties Act of the same year empowered the division of waste or uncultivated land used as pasture among proprietors

who had common rights in them. However, these Acts involved only the rights of the proprietors of the land. There was no consideration of tenants or sub-tenants. Furthermore, the Acts only enabled the changes to be made; there was no obligation to enclose or divide, and such processes were not undertaken in many parts of the Highlands until late in the 18th century.

The Society for Improving in the Knowledge of Agriculture was founded by a group of enterprising landowners in Edinburgh in 1723. The introduction of enclosure, tree planting, fencing, abolition of runrig, liming, rotation, root crops, selective stock breeding, and improved farming tools began to be practised on the lands of enlightened proprietors in the Lowlands. But there was little change in the agriculture of the Highlands at this period, due in part to isolation, tradition and conservatism, so that the gap in standards of farming and of living between the Highlands and Lowlands tended to widen. The end of the Jacobite troubles coincided with rising population and some members of Highland society were already becoming redundant. The tacksmen, who for generations had received tacks or grants of land from the chiefs in return for supplying or recruiting groups of fighting men when needed, were no longer economically viable; they had not been much involved in agriculture, paying low rents in return for the military services to the chiefs, and when higher rents were set many tacksmen preferred to emigrate rather than conform to the new conditions. Some took their sub-tenants with them to form new communities in North America.

Many townships in the Highlands were becoming over-crowded in the second half of the 18th century. This was due to a number of factors, including the introduction of the potato about the middle of the century, and the spread of inoculation reducing the number of deaths from smallpox, especially among children. The following graph is based on the population figures from Webster (1755) and the first 60 years of the official Census (1801-1861) for the six mainland Highland counties (Argyll, Perth, Inverness, Ross and Cromarty, Sutherland and Caithness).



The percentages show the increase 1755-1801 and for each decade thereafter. In many parts of the Highlands tenants and sub-tenants divided and re-divided their land so that their children would have something to allow them to marry and survive.

> "Highland society ... became overwhelmingly dominated by very large numbers of tenants holding very small pieces of land in very crowded conditions, with few among them who could be regarded either as capitalists or as proletarians. Here, instead of peasant society disappearing as the result of agrarian change, it simply became a different kind of peasant society, based on the small-holding instead of the joint farm. Since neither the peasants nor, ultimately, the landowners were better off than they had been before, it must be judged to be the one instance in Scotland of the improvers' failure to improve".
>
> (Smout, 1969, 347)

This development of very small holdings was already taking place in Assynt in 1774 (Chapter 8 below).

Attempts have been made to produce economic and social models for the drastic changes which took place in the Highlands in the 18th and 19th centuries. An economic model supposedly implicit in the works of Hamilton (1932, 1963), Gray (1957), Gaskell (1968) and Smout (1969) has been discussed by Carter (1971). In this, the dichotomy between a traditional and a modern society is seen as the basis for a 'dual sector' model of the Scottish Highland economy in the 18th century. This implies that within one political framework there is a sector operating according to the principles of modern capitalism and another separate and opposed sector, the traditional peasant economy which is

"... conservatively oriented, interested in security and continuity rather than change, not concerned with maximisation of profit or of resource use, oriented towards the satisfaction of social needs rather than reacting to international forces, and incapable of engaging dynamically in trade and commerce"

(Belshaw, 1965, 96, quoted in Carter, 1971). The changes in the Highland economy were thus affected by two independent variables - population pressure and the 'impersonal economic forces' of the dual sector economy (Carter, 1971). Gray (1957, 246) talks of "... the total impact of the powerful individualism and economic rationalism of industrial civilisation on the weaker, semicommunal traditionalism of the recalcitrant fringe", a fanciful but forceful way of describing the effect of the commercially sophisticated sector on the peasant sector in the 'dual economy' model. The fast-growing population was stretching economic resources in the western and coastal areas of the Highlands where, until 1815, landowners could make good use of some of the labour-intensive work such as kelp-making.

An important measure in promoting changes in the rural landscape was the Act of Entail, passed in 1770. This allowed improvements to be carried out on entailed estates which made up about one-third of the country. Any proprietor of an entailed estate who laid out money on improvement could be creditor to succeeding heirs of the estate to the extent of three-quarters of the money spent. The conditions were to include longer leases, provisions were to be made for enclosure and consolidation of runrig, the introduction of new crops and the creation of larger and more economic holdings. The implementation of most of these changes was easier under the Highland landholding system than it would have been where long-term leases were held.

> "Although there was a great deal of runrig, many of the townships were owned by single proprietors, and even where there were a number of owners or feuars, that number was usually far smaller than the number of owners or copyholders in an English manor. Also, although there were a good many common grazings the number of actual owners of common rights was generally small. Such exchange and redistribution of land as was necessary to the creation of compact farms could be carried out by private arrangements, or by a simple process at law... Moreover the Scottish township was often of a convenient size - two or three hundred acres - for conversion into a modern commercial farm. Generally it was an easy, if sometimes a ruthless thing, to turn out a group of small and poor tenants to make way for a capitalist farmer and the new husbandry. Finally there were no fences to tear up, and almost no buildings that were worth preserving. The next man, when he came, could proceed to lay out his farm almost as if the land had been open prairie".
>
> (Watson, 1929, 7)

This Act of Entail was probably anticipated by the 3rd Earl of Breadalbane (Chapter 5.1 below), who had his Lochtayside lands surveyed in 1769, producing a detailed picture of a pre-improvement agrarian and settlement landscape. The remains at East Lix (Chapter 11.1 below) provide evidence of intermediate and later stages in the process of consolidation and improvement. Caird (1980, 209) summarised some of the complexities of the changes: "Enclosure thus came about on farms in three ways, by tenant reduction, by division of farms and, very probably at the termination of leases, with multiple tenancy being replaced by single tenancy on the replanned estates".

3.4 Sheep Farming for Profit

But improving ideas were in general slow to spread in the Highlands, and the effects of changes on the increasing population density of the region were little felt until the value of some aspects of the new farming was appreciated by landowners who apparently could see little else to do with their land. The process of relocation and clearance of population began with the conversion of many areas of the Highlands to sheepwalk. Until the later 18th century, sheep were traditionally kept for meat, milk and wool for local consumption, but were no part of the market economy dominated by black cattle. The growing demands of the Yorkshire woollen industries had hastened the commercialisation of sheep farming in the Borders by the mid-18th century. Inevitably, as demand increased and the region was seen to be suitable, sheep farmers moved north and leases of hill lands in Dunbartonshire, Perthshire and Argyllshire had been taken up by the 1760s. These farmers, many from the Borders, paid higher rents than the small local tenant farmers could afford, and the cash value of this new branch of farming was appreciated by an increasing number of Highland landlords. By the end of the 18th century the greater part of the central areas of the Highlands was under sheep, black-faced Lintons or Cheviots. This form of sheep-farming and the traditional cattle-rearing of the small farmers could not mix. Sheep required less attention and cattle needed winter feeding; sheep cropped the grass too close for cattle to graze. Unfortunately, there was no way that the existing

tenants could take part in this alternative to the traditional farming, since the possession of the large numbers of sheep necessary to make the new system profitable was usually beyond their means. As Gray (1957, 86) noted: "Sheep created no opportunities for small farmers".

The two sectors of the 'dual economy' were now almost joined, and the weaker was about to succumb. In grasping this chance to profit from their seemingly barren hills, many landowners and former clan chiefs changed their socio-economic functions once and for all. The role of patron and client was defined by Wolf (1966, 50) under 'types of domain':

> "Patrimonial domain over land is exercised where control of occupants of land is placed in the hands of lords who inherit the right to the domain as members of kinship groups or lineages, and where this control implies the right to receive tribute from the inhabitants in return for their occupance. The domain becomes the right of a line of lords, their patrimony".
>
> (quoted by Carter, 1971)

Wolf also defined 'mercantile domain' as the domain under which land was regarded as the private property of the landowner which could be bought and sold and for which tribute in the form of rent could be exacted from the occupants. This rent was regarded by the landlord as a return on his capital - the land. With Highland chiefs and landowners turning more areas into sheepwalk and coming to regard clan lands as capital-raising assets rather than as something of the clan to be passed down through descendants, the idea of altered roles in Highland society is close to

Carter's (1971, 114) suggested model: "It makes sense ... to regard the recent history of the Highlands as a change from patrimonial domain to mercantile domain".

3.5 Highland Clearances

The year 1792 was known as 'Bliadhna nan Caorach' - the Year of the Sheep. A few hundred men of Ross attempted to drive the flocks of sheep off their hills and back to the south, but they were stopped by soldiers and landowners. The move was futile and the spread of sheep was relentless and profitable. Sir John Sinclair of Ulbster, a far-sighted improver and pioneer of sheep-farming in Caithness, urged slower development and the incorporation of the Highland tenants in the new economy, but this did not happen. The 'four-footed clansmen' were already grazing in the remains of many former townships. "Finally, it was a tragedy that no-one in authority ever made a serious attempt to harness the co-operative traditions of the joint-farm to the improving ideal, and to create with assistance from the landlords sheepfarms run by groups of Highland tenants" (Smout, 1969, 359).

The development of sheep walk on a large scale on the estates of the Countess of Sutherland after 1800, and the eviction and 'relocation' of many of her tenants have been the subject of a vast literature, bitter and often emotional, sometimes hysterical, even decades after the events. Many serious mistakes were made, particularly in the attempts to resettle tenants and sub-tenants removed from townships in

inland glens and straths on coastal lands which in many cases were either unsuitable or completely unprepared for settlement and farming. Some of the evicting officials undoubtedly had personal financial interests in the land that was to become available. This, and the speed and callousness with which many areas were cleared, points perhaps to a lack of precise instructions and to failure of contact and dissemination of ideas from higher levels in the Sutherland regime, which protested only good intentions and improved conditions for its small tenants. The fact that the evicted were mainly Gaelic speakers and the announcements and notices of eviction were often in English, and that the evictors had often little knowledge of the local language and traditions, no doubt increased the ignorance and confusion. It is interesting to read different views of the period and its events.

> "As there was every reason for concluding that the mountainous parts of the estate ... (were) as much calculated for the maintenance of stock as they were unfit for the habitation of man, there could be no doubt as to the propriety of converting them into sheep walks, PROVIDED the people could be at the same time, settled in situations, where, by the exercise of their honest industry, they could obtain a decent livelihood and add to the general mass of national wealth, and where they should not be exposed to the recurrence of those privations, which so frequently and so terribly afflicted them when situated among the mountains ...
> An advantage of no ordinary nature will be obtained by this concentration of population upon the coast, which is, that all the benefits of education and moral instruction can now be extended to all, which formerly could only be obtained by a portion".
>
> (Loch, 1820, 70-73 & 113-114)

James Loch was commissioner for the estates of the Marquis of Stafford (who married the Countess of Sutherland in 1785) in England and Sutherland from 1812.

The clearance of the Strath of Kildonan was begun in 1813, and in 1814, '<u>Bliadhna an Losgaidh</u>' - the Year of the Burnings, the eastern side of Strathnaver was cleared, leaving township remains such as those at Kilphedir (Chapter 11.3) and Rosal (Chapter 11.2).

> "Alas, alas! I have lived to see calamity upon calamity overtake the Sutherlanders. For five successive years, on or about the term day, has scarcely anything been seen but removing the inhabitants in the most cruel and unfeeling manner, and burning the houses which they and their forefathers had occupied since time immemorial. The country was darkened by the smoke of the burnings, and the descendants of those who drew their swords at Bannockburn, Sheriffmuir and Killiecrankie - the children and nearest relatives of those who sustained the honour of the British name in many a bloody field - the heroes of Egypt, Corunna, Toulouse, Salamanca, and Waterloo - were ruined, trampled upon, dispersed, and compelled to seek an asylum across the Atlantic; while those who remained from inability to emigrate, deprived of all the comforts of life, became paupers - beggars - a disgrace to the nation whose freedom and honour many of them had maintained by their valour and cemented with their blood".
>
> (Macleod, 1857, Letter I)

Donald Macleod was a stonemason, born at Rosal in Strathnaver where he witnessed the evictions. Much of his impassioned observations on the clearances was written decades later.

"Entre l'année 1811 et l'année 1820, ces quinze mille habitans, formant environ trois mille familles, ont été chassés, ou, selon l'expression adoucie de M. Loch, qui avait présidé à l'opération, écartés, déplacés (removed), de tout l'intérieur du comté. Tous leurs villages ont été démolis ou brulés, et tous leurs champs convertis en paturages. Une opération semblable était faite, à peu prés simultanément, par les sept ou huit autres seigneurs qui possédaient le reste du comté de Sutherland, ou une étendue de plus de deux cent cinquante mille acres anglais; bien plus, presque tous les seigneurs du nord de l'Ecosse agissaient alors de meme, ou ne tardèrent pas à suivre cet exemple. M. Loch assure cependant que la marquise de Stafford a montré bien plus d'humanité qu'\ aucun de ses voisins; elle s'est occupée du sort de ceux qu'elle déplacait, elle leur a offert une retraits sur ses propres terres; et en leur reprenant sept cent quatre-vingt-quatorze mille acres de terre, dont ils étaient en possession depuis un temp immémorial, elle leur en a généreusement laissé six mille environ, ou deux acres par famille.

Ces six mille acres ouverts pour servir de refuge aux petits tenanciers étaient auparavant en friche, et ne rendaient rien au propriétaire. Celui-ci ne les a cependant pas concédés gratuitement; il les a assujettis à une rente moyenne de deux shillings et demi par acre, et il n'a point fait de baux plus longs que pour sept ans; mais il a promis de renouveler le bail pour sept autres années, si la terre se trouvait bien cultivée...

Toutefois il y a quelque chose de si absurde et de si révoltant à considérer comme un progrès la destruction du bonheur, de la liberté, de l'existence meme d'une nation, pour l'avantage de la richesse".

(Sismondi, 1837, 204, 221-222)

J.C.L. Simonde de Sismondi was a Swiss economist of the first half of the 19th century. Unlike many of the dispossessed tenants, who tended to blame the agents of the Sutherland estates, Sismondi struck out at the Sutherland/ Stafford family itself, comparing them unfavourably with many European landowners. His was a humanitarian view in

a materialistic age; his idea of the 'dual sector' was the opposition of two economic doctrines - political economy, in which the socio-economic structure of a region or country was organised by regulation and order, and the 'chresmatistic' doctrine, the simple acquisition of wealth. He saw the Sutherland estates as operating the latter doctrine.

> "The entire programme of clearance and redevelopment had come to rest on compulsion. The people remained at all times either sullen or actively hostile. The Countess of Sutherland and her advisers were genuinely astonished at this response to plans which they regarded as wise and benevolent. They believed the common people were ungrateful and foolish. The plan for resettlement, the sincerity of which is not open to doubt, was botched. The lots were not ready in time to receive the people and they were given too little time to prepare their crops".
>
> (Richards, 1982, 304, 308)

None of the accounts is entirely accurate, but in this they reflect the attitudes of the time. The reports of the Crofters' Commission of 1884 show just as many extremes from eye-witnesses as well as undoubted hearsay.

> "Sutherland was not Morayshire. Excellent as the attempted rationalisation of the economy was, there was not enough capital to establish really viable coastal farms, let alone an adequately-equipped herring fishery in the face of stern competition from established North-East fishermen. Industry proved lame. Above all, the general collapse in prices extended to wool after 1820, and in the decade 1820-30 wool prices were on average only half

> what they had been in the decade before 1820. The tragedy is that the house of Sutherland effectively subsidised its estates while making its principal family seat, Dunrobin Castle, a symbol of tyranny. Too much has probably been made of the case of the Sutherland estates. They were unusual in their size and especially afterwards, when the system of financial control was tightened, the Scottish estate was treated as part of an integrated complex of assets whose main producing heart lay in England. The few surviving great traditional dynasties such as those of Sutherland, Breadalbane, and Argyll, were themselves by 1850 exceptions in a Highlands where the turnover in ownership of land was very rapid".
>
> (Lenman, 1977, 145)

The clearances for sheep continued through the first half of the 19th century, leaving many, particularly inland, areas with remains of former settlement and agricultural activity 'frozen', as it were, in time, since there has been little subsequent recolonisation of these areas. To some regions, as in parts of Breadalbane in the 1830s and 1840s, clearance for sheep came late, and the clearances for deer forest were still to come.

Having introduced two facets of change, technical and organizational, at the beginning of this chapter, it has to be admitted that in the century and a half before 1850 it is very difficult to separate them in their effect on the Highland rural landscape. Organizational changes probably had the greater impact in the Highlands, particularly through the breakdown of the clan system, but the introduction of sheep, which might be regarded as a technical change, had its most drastic effect on the settlement pattern and the

structure of rural society. There is little doubt that Highland climate and environment had a delaying effect on many of these changes. A terminus post quem for changes in some areas was the commissioning of a land survey, which usually showed the pre-improvement situation, as in Lochtay-side in 1769 and Assynt in 1774.

CHAPTER FOUR

LOCHTAYSIDE: LANDSCAPE AND EARLY HISTORY

4.1 Physical Landscape

Loch Tay is between 14 and 15 miles in length (23 km) and has an average breadth of three-quarters of a mile (1200 m). The surface of the loch is 350 feet (105 m) above sea level and the land on either side rises immediately, sloping gradually at first, with occasional pockets of level land, then more steeply, to the watersheds on the north and south (Figures 1 and 2). The ridge which forms the northern watershed between Lochtayside and Glenlyon is mostly over 2000 feet (610 m) with Ben Lawers dominating at 3984 feet (1214 m). The southern watershed rises to heights of 2500 to 2800 feet (760-850 m), separating Lochtayside from Glen Quaich, Glen Almond, Glen Lednock and Glen Beich. The main streams flowing into Loch Tay from the north are Allt Tir Artair, Allt a'Mhoirneas, the Burn of Edramucky and the Lawers Burn. The Allt Breaclaich, Ardeonaig Burn, Allt Mheinn, Ardtalnaig Burn and Acharn Burn flow into the loch from the south. The Rivers Dochart and Lochay enter Loch Tay at its western end at Killin, and the River Tay issues from its eastern end at Kenmore.

The solid geology is mainly mica schist - "... a complex of schists, metamorphosed sediments whose break-up under normal processes of rock decay yields relatively abundant plant nutrients" (Miller, 1967). Faujas de Saint-Fond, who travelled through the area in 1784, noted: "The mountains which are nearest the lake and enclose it on all

sides, are composed of a schistus micaceous rock, intermixed with felt spar and quartzose matter; the latter is most abundant. In this rock I found a few garnets, of a bad configuration and coarse texture" (Saint-Fond, 1784, 171). This complex is covered to varying depths with glacial drift, the clayey nature of which creates numerous wet areas. There are abundant outcrops of limestone which could have been put to good use on the land, but was apparently still little used in 1769, when John Farquharson, surveyor of the northern lochside, stated in reference to Ballindalloch: "There is here great abundance of limerock tho' never used", and of Wester Kuiltyrie - "The outfields have never been limed tho' almost every rock thro' them is excellent limestone". The Rev. Colin Macvean, Minister of the Parish of Kenmore, wrote in the Old Statistical Account (1794-95, 464-5): "The richest and best cultivated land in this country extends nearly a mile in width on both sides of Loch Tay. The soil, which is of a loamy texture, has, in the course of time, been carried down by the rains from the higher grounds; and is enriched with the spoils of decayed animals and vegetables. The hilly land chiefly consists of a light mossy kind of soil, which naturally is not unfriendly to vegetation. Heath, bent, and coarse grasses, are the general product of the hills and muirs; but the vallies and water-carried soils in the glens etc. produce good crops of excellent grasses. The grains chiefly cultivated are oats, bear or big (four-rowed barley), beans, pease, potatoes, and lint. The average return of oats is 3 or 4, and of barley 4 or 5.

The return of lint is commonly a stone of flax from the lippie (see Appendix 29). Potatoes in general make a good return. The old system of rotation, namely, the infield land with oats and bear alternately, and the outfield with oats and ley, is in general continued. Each farm is commonly subdivided among several tenants, a practice which does not merit the highest approbation. These tenants have each a separate lease or verbal bargain, the duration of which is mostly from year to year, at the will of the proprietor. Under such a system, agriculture cannot be expected to make great progress". Here is the suggestion that it is custom, rather than the environment, that is the major problem in Highland agriculture at this time. Saint-Fond also mentioned the agriculture: "The foot of the mountains is tolerably well cultivated; but the only produce is oats, which are not reaped till about the middle of October. These oats are very tall; they were only beginning to be cut down at the time I passed; I measured several stalks, and found the shortest to be four feet high, and the longest five feet six inches. I do not entirely agree with Knox, who visited this place sometime after me, when he says, "that its banks on both sides are fruitful, populous, and finely diversified by the windings of the lake, and the various appearances of the mountains". The views upon both sides are too confined, and exhibit only the same dreary aspect, and a few scattered patches of oats, present only the image of an ungrateful soil" (Saint-Fond, 1784, 170). This somewhat jaundiced

view, as with so many travellers in the Highlands in earlier days, could have been provoked by the weather of the day of the journey, the state of mind of the observer and his prejudices, or perhaps the degree of comfort, or lack of it, at the previous evening's lodgings.

The annual average rainfall increases from east to west along the loch but, due to the mountain barrier, rainfall is less than in areas farther west. William Marshall, in his <u>General View of the Agriculture of the Central Highlands of Scotland</u> (1794), had some interesting observations to make on the 'Climature'. "Considering the latitude between 55 and 56 degrees (Lochtayside lies, in fact, between latitude 56° 25' North and latitude 56° 40' North); the elevation, even of the vallies; and the height and nakedness of the hills; a severity of climate might be expected. It is not however found. From what I have had an opportunity of observing, and from the enquiries I made with such satisfactory information I have no reason to doubt, the climate even of Breadalbane, "Braedyallapin", the Braes of Scotland, or Heights of the Highlands, is not more severe than that of the Morelands of Yorkshire. The comparative shortness of day in winter is a natural disadvantage of the Highlands, and the spring in general is here, perhaps, somewhat later; but in the quantity and continuance of snow, the severity of frost, the strength of vegetation, and the season of harvest under similar management, the difference, I apprehend, would be difficult to trace. Indeed the mountains of Perthshire, under proper management,

would not, I apprehend, be behind those of Cornwall and Devonshire, in the season of corn harvest; and comparatively with those, the Central Highlands enjoy a drier harvest, and generally a drier climature; excepting the western margin of the district, which, in moistness of climate, approaches nearly to the western extreme of England; even in so short a distance as the length of Loch Tay, fifteen miles, the difference of climature, with respect to moistness, is very great.

Another variety of climature, within this district, is observable. Glen Quech (Quaich), which lies to the south of Loch Tay side, is later and less capable of maturing crops; which, in a cool backward season, do not ripen so kindly as they do in Breadalbane. This may, perhaps, be accounted for in their relative elevation. The surface of Loch Fruechy, it is possible, is considerably higher than that of Loch Tay (it is 870 feet above sea level, as compared with 350 feet for Loch Tay). The tradition which says that Glen Quech was formerly a sheeling to Strath Tay, is probably right. It is, in respect of climature, better fitted for pasturage than for arable crops; for which, nevertheless, the climature of Breadalbane appears to be perfectly well suited" (Marshall, 1794, 17-18).

The number of sunshine hours is high for the region, the south-facing slopes being obviously most favoured as shown by the higher arable areas along the northern lochside (Figures 2 and 9). Despite Marshall's words, winters can be cold, with snow lying for considerable periods, confining stock to the lowest-lying grazing areas.

The vegetation, as listed in the Macaulay Institute's recent survey (1982), consists of bent-fescue grassland, rush pastures and sedge mires, and some broadleaved woodlands. Much of what was regarded as good quality land in the late 18th century has deteriorated due to disuse and the introduction of sheep. The Campbells of Glenorchy/Breadalbane had been associated with afforestation from an early period. Sir Duncan Campbell, 7th Laird of Glenorchy, was appointed Keeper of the Royal Forest of Mamlorne and this office remained in the family for generations. The details of the appointment are in a document among the Breadalbane Estate Papers in Register House:

> "Schir Duncane Campbell of Glenurquhay ... of ye forrest of Mamlorne and vtheris withinwreittin daitit xi of Januar 1609.. And to hauld court and plante within the foirsaidis wodis and forrest for keiping of the same in gud ordour And als to searche seik tak and apprehend waird and punisch quhatsumever persone or persones that sall happen to be fun or tryit haunting or frequenting the saidis wodis and forrest be nicht or day weiraris of gunis hagbuttis or quhatsumevir vther maner or ingyne of wapinis that may do hurt or skaith to the same wodis and forrest deir and rae thairof and sicklyk to intromet with and dispone ypone all manner of bestiall sic as horssis meiris scheip nolt goate or svyne that sall happen to be fund pasturing and feiding thairintill And to inbring the same the ane half thairof to oure Vse and the vyer half of the same to him self and his forsaidis wsers to be vseit and disponit vpone be thame at thair pleasure ...

The same Sir Duncan was a 'planter' in his own right: "He formed plantations in his own parks, and he also endeavoured to get all his tenants and even the cottars to plant young

trees every year in proportion to the area of their holdings. The laird's gardener supplied the saplings of oak, ash and plane at the rate of "two pennies a piece". The saplings were to be planted first in the "kailyards", and as soon as they were ready to be taken up they were to be planted in the most suitable part of the holding. These young trees were protected by statute. Any one found wantonly cutting or destroying them was liable to a fine of £20, and a reward of £10 was offered for information that would lead to the conviction of an offender" (Gillies, 1938, 255). The Court Books of the time note various offences and fines for the cutting and destroying of woods. In 1615, the forester of Letterellan (between Stronfernan and Port of Lochtay) charged three men with "halding of their goat in Letterallan all last winter to the great hurt of the wood". Another man was fined 40s. for "suffering of swyne to be in the wode of Stix". As late as 1776, a lease of the township of Borland, on the north side of Loch Tay, stated that it was forbidden to pasture cattle "within the fences of the woods" for the first five years after they were cut.

The area of woods recorded in the 1769 Survey is small in comparison with the overall size of Lochtayside. Farquharson records 430 Scots acres for north side and McArthur 626 acres for the south side. The best woods appeared to be along the lochside and Farquharson noted that the natural woods in this location inclined to birch, hazel and a few alders and that one part consisted of birch and oak about five years old. Some patches of woodland can

be seen on Farquharson's plans at Figures 10 and 12. He lists no woods at all for the farms between Lawers and Stronfernan, a stretch of relatively smooth unbroken slopes which might have been more exposed than the western end of the loch. "There is little doubt that the whole of the low-lying ground must have been heavily wooded by a forest of oak, birch, hazel and alder, probably with ash on the most fertile parts and that this forest had been gradually eliminated by the effects of grazing and cultivation" (Anderson, 1967, I, 417).

On the south side of the loch, McArthur noted that the tenants were bound to preserve the woods and plantings on their land, but were allowed timber for their houses and farm implements. From the number of lime-burning kilns dotted around the former townships, there must have been some allowance of wood for fuel for lime production. For the officiary of Ardtalnage McArthur stated: "The wood is not regularly cutt but is cutt for the service of the country". The value of woods as shelter belts is emphasised by his comments on a hill in the officiary of Ardeonage; "Meolinnoch is very bare and ought to be planted which would be of great advantage several ways such as shelter to cattle as the grass is of very little use to any kind of cattle. Also it would break the course of the strong winds and be a means of saving the standing corn from being shaken, and the roofs of houses from being blown down notwithstanding the use of the timber it might produce". The south side had obviously more and probably better woods than the north, as

can be seen from the strips along the lochside which include many ash (e.g. Figure 43a).

Transport and communications in Lochtayside were not so bad in the second half of the 18th century as they were in many other parts of the Highlands. A road along the north side of the loch between Killin and Kenmore was built at the expense of the 3rd Earl of Breadalbane (1752-1782) and it had no fewer than 32 bridges on Lochtayside alone. The road was admired by Thomas Pennant in 1769. It is shown as a double line running across Farquharson's plans of the north side (Figures 10, 11, 12, 14, 16, etc.). The road along the south side of the loch was probably inferior to the northern side. It is shown on McArthur's plans as a more meandering track (Figures 43a, 44, 45, 46 and 49) and perhaps a less important line of communication. Its date of construction is not certain, but it is as old as 1753, when a note of repairs is mentioned in the Perth County Records. Apart from these main roads, an important cattle-droving road ran from Ardeonage south up the glen past Braeintrine and Newtown farms over to Glenlednock and thence down to Comrie. The 4th Earl and 1st Marquis of Breadalbane petitioned the Commissioners for Roads and Bridges in the Highlands of Scotland in 1807 to have this drove road route made into a true road: "To remove the inconvenience thus experienced by the Country situated along Loch-Tay, and by that around Comrie, it has been long and frequently proposed to open a Road from the South side of Loch-Tay near the

village of Ardeonich through Glenlednaig to Comrie ... The effects of this Line of Road being carried through, would be, to reduce the Distance from ... Stirling to the Centre of Loch-Tay, from 54 miles by Kenmore or 46 miles by Killin to 34 miles, being a reduction of Total Distance of 20 miles in the former and of 12 miles in the latter case". The cost was estimated at £300 per mile but no offer less than £600 per mile was received and, neither side being willing to change, the idea was given up by 1811 (Haldane, 1962). Another track, from upper Glen Almond, came down to the southern lochside, past Shee of Ardtalnaig, to Ardtalnage.

There were at least two ferries across Loch Tay, one from Milton of Lawers across to Ardtalnage, where McArthur's plan shows 'Lawers Boat Harbour' on Easter Tullich, and between Tombrechts and Ardeonage, where Farquharson has written 'Passage to Ardeonach' on his general map of the north side.

4.2. Early Landowners on Lochtayside

For much of the medieval period Lochtayside was Crown land, supervised by a baillie who collected revenues and administered justice. His title was Bailie of Discher and Toyer, from Deisir Locha Tatha (the north or sunny side of Loch Tay), and Tuathair Locha Tatha (the south or north-looking side of Loch Tay). The Exchequer Rolls (Rotuli Scaccarii Regum Scotorum) have an account of one Thomas Wardropar, "receiver of fermes", in 1475 to 1476, listing under "Desschiere et Twyere":

"Item, idem onerat se de vj li. xiij s. iiij d. (£6-13s.-4d.) de firmis terrarum de le Port jacencium infra dominium de Desschiere et Twyere, de duobus terminis hujus compoti. Et de (£6) de Estirende de Ardgollane. Et de (£4-13s.-4d.) de Westirende infra torrentes. Et de (£3) de Killochane in Nethirgolly. Et de (£6-6s.-8d.) de decim marcatis residui de Ardgollane, et viginti marcate que sunt residuum dictarum terrarum sunt in manibus prioris et conventus Cartusie. Et de £6-13s.-4d. de firmis tercia partis de Ardtollany. Et de £6-13s.-4d. de firmis de Clochrane. Et de £3-6s.-8d. de Corycarmak. Et de £6-13s.-4d. de firmis de Moernych. Et de 53s.-4d. de Tirray. Et de £6 de Tulloch et Dalgardy. Et de £5-6s.-8d. de Terrarteray. Et de 53s.-4d. de Kiltery. Et de £26-13s.-4d terrarum de Laweris de duobus terminis hujus compoti. Et de 20s. molendini de Ardgolly. Et de 26s.-8d. de firmis foreste de Mamelorne. Et de 26 stukmartis de Desschiere et Twyere de anno compoti. Summa hujus oneris £96-13.-4d., preter viginti marcatas in manibus Cartusiensum".

Some Lochtayside lands and farms are already being mentioned here: Port (Port of Lochtay), Ardtollany (Ardtalnage or Ardtalnaig), Clochrane (Clochran), Moernych (Morenish), Terrarteray (Terartar), Kiltery (Kuiltyrie) and Laweris (Lawers) listed here as a £26-13s.-4d (40-merk) land. The reference to the Carthusians must be to their only house in Scotland, the 'Vale of Virtue' Priory near Perth, founded in 1429. It is mentioned in a charter as late as 1642 (RMS 1057), confirming John Campbell, 10th Laird of Glenorchy, in the possession of various lands: "... cum officio balliatus earundem, et ceterorum ad domum Vallis Virtutis Carthusien. olim prope burgum de Perth situatam spectantium in dictis dominiis".

Older forms of land holding or land stewardship are suggested by references to Crannich on the northern side of

Loch Tay as a former thanage - "... terras thanagii de Cranyk vocat. Cranyk". In 1642 Ardtalnage, on the south side, was still referred to in the Register of the Great Seal (RMS 1057) as: "... cum officio de toscheachdoraschipe de Ardtholony". The toiseach, toisech or toisich was an office of possibly pre-medieval origin in Scotland. It was defined by Jackson (1972, 112-113): "Just as the mormaer was identified with the comes, the earl, so the toisech was identified in early Scottish terminology with the thane, the title of another Anglo-Saxon official borrowed from England like that of the earl. The Scottish thane was a subordinate officer of (usually) the king, or of an earl, set over a stated territory of his lord's lands, holding his position hereditarily, and charged with duties in connection with the administration of his thanedom and with its military organisation, the collection of taxes, and the administration of justice there". More recently, Barrow put it quite simply (1983, 93): "... toiseach, literally of course 'chief', but in Scotland frequently used as equivalent of 'thane', the officer or petty noble managing a thanedom or shire". From this office comes the clan name of Clan Chattan, Mackintosh - Mac-an-Toisich, son of the thane or toiseach.

From the 14th century onwards Lochtayside lands were purchased, feued or granted to various families for services to the Crown. About 1400, Finlarig was a 10-merk land in the possession of the Drummonds, later Earls of Perth. In the early 14th century, Robert Menzies of Weem was granted

part of Morenish and the thanage of Crannich. The Robertsons of Strowan (Clan Donnachaidh) held the 30-merk land of Fernan from the early 15th century. In the later 15th century, Wester Ardeonage was owned by the Napiers of Merchiston: the Great Seal records for 21st June, 1512:

> "Rex concessit Alexandro Napar militi ... ac dimedietatem terrarum de Ardewnane, viz. terras de Tullechannan, le Mydill-Thrid de Ardewnan nuncupat. le Ten-Merk-land, occidentalem dimed. de le Halch de Ardewnan, cum dimedietate molendini ac multuris et sequelis earundem, ...

The references are to Wester and Easter Tullichcan, the Haugh (Halch) of Ardeonage or Ardeonaig (Ardewnan, Ardewnane), and the 'Middle Third' of Ardeonage, a name retained in the farm (no.14 on Figure 9) of Braeintrine - bràigh an trithinn - 'the upland of the third part'.

Easter Ardeonage was held by the Haldanes of Gleneagles in the 15th century. It included the superiority of Carwhin, Carie and Eilean nam Breaban on the opposite side of the loch. The lands were sold to the Campbells of Lawers in 1609 and are listed in the Retours (Inquisitionum ad capellam domini regis retornatarum in publicis archivis scotiae adhuc servantur) for 1653 as - "The half lands of Ardewnan other-wayes Ardewnack called Succoth, Finglene, Hauch, Canrie (Carie), milne, etc. of Ardewnan and tennandries thereof called Carquhine and Canrie, with the advocatioune of the Kirk of Ardewnane, and the fishing of Loch Tay".

Eddergoll (Ardgollane, Nethirgolly, Ardgolly in Thomas Wardropar's account of 1476 mentioned above; Eddirgolly in a Crown Rental of 1480, Eddirzowell in the Chronicle of Fothergill (Fortingall), 1531, and Eddergooyllyt in 1556) was an old name for the land between the Auchroich Burn at Callelochan and Kenmore at the eastern end of the loch (Figure 4). The name had gone out of use by the time of the 1769 Survey. A forty-shilling land in Eddergoll was held by one Donald Macnaughton in 1480 and the land was still held by at least one tenant of that name at the time of the Survey in 1769 when it was listed (no.62 on the south side) as Ballamacnachtane ('Macnaughton's Town') or da fhichead sgillin ('forty-shilling' land).

It is interesting to note, in a charter of 1574 (RMS 2200) to Colin Campbell, 6th Laird of Glenorchy, the listing, along with money rents, of payments in kind for lands along the south side of Loch Tay:

> "Pro bina parte de Clocherane 4 lib. 8 sol.11 den., pro tertia parte earundem 44 sol. 5.1/2 den., et 3 lib. 18 sol. pro 26 petris casei (26 stones of cheese). Pro 3 marcatis de Ardtollony 4 lib., pro aliis 7 marcatis earundem 4 lib. 13 sol. 4 den. Pro Eddergole 5 sol. pro qualibet 12 bollarum ordei contusi (12 bolls of ground barley), 5 sol. pro qualibet 5 bollarum albe farine avenatice (5 bolls of white oatmeal), 5 sol. pro qualibet 12 bollarum nigre farine avenatice (12 bolls of dark oatmeal), pro molendino earundem 6 lib. 13 sol. 4 den., et 4 den. pro qualibet 36 pultrearum (36 chickens). Pro Auchlekhech 5 lib. 6 sol. 8 den. Pro 2 marcatis de Remony 33 sol. 4 den., et 5 sol. pro qualibet 4 bollarum polente molite (4 bolls of barley meal), 5 sol. pro qualibet 2 bollarum albe farine avenatice (2 bolls of white oatmeal), 5 sol. pro qualibet 4 bollarum nigre farine (4 bolls of dark flour or meal), pro aliis 40 solidatis earundem 5 lib. Pro Skeag 26 sol. 8 den. Pro Duncane Reochstoun 26 sol. 8 den".

4.3 Early Maps

The first graphic impression of sites on Lochtayside comes from a rough map, now in the National Library of Scotland, dated to the end of the 16th century and probably from the hand of Timothy Pont (Cash, 1907). This may be an early draft of part of the map of 'Breadallaban' for Volume 5 of Joannis Blaeu's Atlas Novus, published in Amsterdam in 1654. The shape of the loch is rather distorted (Figure 3) and three attempts have been made to show the River Tay near its confluence with the River Lyon. Of interest are the place-names and sites on the north and south sides of the loch, some wrongly located but still relating to many of the farms of the 1769 Survey. They are listed here with the 1769 version of the names:

Pont, c. 1600	Survey, 1769
(North Side)	
Finlaryg	Finlarig
Tyrarter	Tirarthur, Terartar
Tyrey (there is a Tirai in Glenlochay)	
Moirinche	Morenish
Tomnarour	Tommachrochar (?)
Kouiltyr	Kuiltyrie
Greuintaggan	Margcraggan (?)
2 Krannichs	Crannich
Caerwhun	Carawhin
W. Lawers	
E. Lawers	
Ardlawers	
Logyfaernan	Lag-Fern
Logy-Ty-Moir	Tommantaymore
Fairnan	
Stron-fernan	Stroan-Fernan
Letyr yllen	Letterellan
Port	Port of Loch-Tay

Pont, c. 1600	Survey, 1769
(South Side)	
Achamoir	Achmore
Clochreran	Clochrane
Kamezvourich	Cambuschurich
Tallichkan	Tullichcan
Sococh	Suckoch
Ardeunaig	Ardeonage, Ardeonaig
AchcaKarry	Twenty-Shilling Land of Carie
Letyr Ardeunaig	
Heglish Vikecharmick	Heaglais or Cill-mo-Charmaig (church on Twenty-Shilling Land)
Finglen	Finglen
Glen-Tailnaig	Glentalnaig
Kalulachen	Callelochane
Kailling (misplaced for Killin ?)	
Achainich	Achianich
Waird	
Kreitmartin	Croftmartage
Achacharn	Acharn
Pierkoull	
Balnaskiaig	
Keand-moir	Kenmore
Ballach	Balloch

Some of the place-names are spelled quite differently from the 1769 versions, but sometimes there is a little more accuracy, e.g. Kreitmartin is much closer to the Gaelic Croit Martin - 'Martin's Croft' than the 'Croftmartage' of the Survey. Notes written on the map include - "Fair Salmonds, Troutes, EEles and pearles in Loch Tay", and the comment - "a king drowned in Lochtay", no doubt taken from the reference, in Holinshed's Chronicles, to a king 'Donwald' drowned in 'Lochtaie' - "in the yere of our Lord 647".

There is little indication of the settlement pattern as such on Pont's map. The place-names are shown against turreted, castle-like symbols or large houses, possibly the seats of the barons or lairds of the period. An example

of the type of house indicated at 'W. Lawers' could be the surviving remains of the 'House of Lawers' (Figure 33 and Plate 32). There were also castle remains at Finlarig and Etramuckie on the north side, and at Mains on the south side of the loch, which may have been complete structures at the time of Pont's map. In general, the impression of a number of large houses along the shores of the loch might be a false one in that the simple two-storeyed, mortared house may have seemed 'grand' when set in comparison with the poorer, less strongly-built dwellings of the tenants and sub-tenants, made of dry stone or perhaps some even less durable materials. In the 18th century manuscripts of John Ramsay of Ochtertyre there is a comment: "Although some of the people who, in the 15th and 16th centuries, obtained lands in feu-farm, built houses in imitation of the lesser barons, a great majority of them were contented with houses of a simpler, less expensive construction. The King's feuars were specially bound to build and maintain a hall, a chamber, and a kitchen, by which was understood a house of two storeys. It was not, however, necessary that their hall should be lofty or large enough to entertain a country. Indeed, if we may judge of the hall-houses in these times from some remaining specimens, no compliment is due to the taste or liberality of their founders, many of whom were well-born and easy in their circumstances" (Allardyce, 1888, 94-95.

After a gap of about 150 years, the first map with definite settlement evidence for Lochtayside is the relevant section of Roy's Map, the Military Survey of Scotland, 1747-1755. This was surveyed at a scale of 1000 yards to the inch (1:36,000) and edited at 4000 yards to the inch (1:144,000). The outline of Loch Tay is not greatly different from that on modern Ordnance Survey maps (Figure 5). Arable land is shown by 'rig-shading' and a road is depicted along the north side of the loch. Improvements are limited at this stage to some enclosure and tree-planting by the lairds - seen around their larger houses at Finlarig, Lawers (Figure 32), Port of Lochtay, Kenmore (Taymouth), Mains (Ardeonage) and Achmore. Settlement clusters on the farms are represented by groups of small oblongs or rectangles, coloured red on the original map (Plate 1). They do not always show the exact number of buildings in a cluster but they average out for the whole of Lochtayside quite close to the number of buildings per cluster in 1769 (Appendix 5). Figure 5 shows the sites of settlements as recorded on Roy's Map and they compare reasonably well with the Survey of 1769, as might be expected within a period of around 20 years. Some names, however, are missing from Roy's Map, e.g. in the glens of Finglen and the Newton Burn running south from Ardeonage, and in Glentalnaig; elsewhere some named sites are in the wrong locations. There are many unnamed clusters and some names given bear no resemblance to those of the known settlements in other documentary sources. For example, there is a 'Fichet Skilan' - <u>fichead sgillin</u> - 'twenty

shillings (land)' shown in Crannich on the north side of the loch, where no such name existed. But the Survey records a Twenty-shilling Land in Ardeonage, directly opposite on the south side! A comparison of Lochtayside place-names at different periods is included as Appendix 11, in which the gaps and differences between Roy's Map and the 1769 Survey can be clearly seen.

Thomas Pennant was touring Scotland in the year of the Lochtayside Survey, and his remarks on the population of the loch sides are very useful (Chapter 5.1 below). He made little reference to the settlements of the peasants on Lochtayside, but his comments were sometimes pointed. Referring to Loch Tay: "The lake is about a mile broad, and fifteen long, bounded on each side by lofty mountains; makes three great bends which adds to its beauty. Those (slopes ?) on the South are well planted, and finely cultivated high up; interspersed with the habitations of the Highlanders, not singly, but in small groups, as if they loved society or clanship: they are very small, mean and without windows or chimnies, and are the disgrace of North Britain, as its lakes and rivers are its glory" (Pennant, 1774, 83-84). There are two engravings from his travels through Breadalbane which show the east and west ends of Loch Tay (Figures 6 and 7), with perhaps just some rigs showing in the view from 'Killing'.

4.4 The Campbells of Glenorchy

The later history of settlement on Lochtayside is to a great extent bound up with the rise and territorial expansion of the Campbells of Glenorchy who, by purchase, marriage and judicious support of the contemporary Establishment, gradually acquired vast estates including the lands along the shores of the loch. The Glenorchy line began with Sir Colin Campbell, first Laird of Glenorchy, second son of Sir Duncan Campbell ('Duncan Aa') of Lochawe, whose older son Archibald was the ancestor of the Earls and Dukes of Argyll. Colin Campbell became Laird of Glenorchy in 1432 and during his lifetime acquired the first lands on Lochtayside. He rented Achmore at the western end, and Balloch at the eastern end of the loch, and part of Ardtalnage from the Carthusian 'Vale of Virtue' Priory at Perth, mentioned above. He was granted the Barony of Lawers in 1473 by James III for his part in the capture of the murderers of James I - mentioned almost 50 years later in a charter of 1525 (RMS 315):

> "... 40 marcatas terrarum le Thre Lawaris nominat., viz. Laware-moir, Laware manach et Clene-lawaris, jacen. in Discheir de Lochtay, vic. Perth; ...quequidem per Jac. III. regem quondam Colino Campbell de Glenurquhay militi ... pro bono servitio dicti Col. facto in captione quondam Thome Chalmer proditoris, qui interfuit crudeli interfectioni regis Jac. I".

Lawers was a 40-merk land and had been listed as such in Thomas Wardropar's list of farms in 1476, mentioned above. It is named the 'Three Lawers' and was so divided in a charter of 1480: Lawarmoir, Lawarmanach and Glenlawar

(Westir and Estir). By 1769, Lawermoir or 'great Lawers' included Croftantayan, Tomb, Drimnaferoch, Cuiltirannich and Miltown or Parks of Lawers. Lawermanach or 'middle Lawers' included Mahuaim, Lawernacroy, Duallan, Lurroginbuie, Drummaglass, Marragintrowan, Shaunlaroch, Cragganruary. Clene-lawaris or Glenlawar included Wester Cleunlaur, Middle Cleunlaur and Easter Cleunlaur. This increased number of units under the original three divisions appears to be an example of 'town-splitting' of the type discussed by Dodgshon (1973, 1977), and obviously taking place well before any 18th century 'improvements'. Lawers was given to Colin's younger son, who founded the cadet line of Campbell of Lawers.

Sir Duncan Campbell, second Laird of Glenorchy, was appointed Bailie or Chamberlain of the Crown lands of Discher and Toyer (Deisir and Tuathair) by charter from James IV. In 1492 (RMS 2091) he acquired a feu charter from the Crown of the lands of the Port of Lochtay, Callelochane and part of Eddergoll:

> "Rex - concessit et ad feodifirmam dimisit armigero suo Duncano Campbell de Glenurquha, heredibus ejus et assignatis, - 10 mercatas terrarum de le Port de Lochtay, cum insula ejusdem, et piscatione lacus de Lochtay; 8 mercatas terrarum finis orientalis de Eddirgole jacen. propinquius et juxta terras de Balloch; 4 mercatas 6 solid. 8 den. terrarum de Callilloquhane, in dominio de Deschore et Toyere, vic. Perth:- Reddend. annuatim 22 merc. 6 sol. 8 den. nomine feodifirme".

Feuferme tenancy, mentioned here, was developing at this time in preference to the older system of wardholding. Smout (1969, 136-7) explains: "Feuferme was more recent in origin and much less pristinely feudal in character, since it rested on a basis of cash rather than of personal obligation. It

was obtained by paying a superior a large sum as down-payment known as the 'grassum', followed by a rent known as the 'feu-duty' that came to be regarded as fixed in perpetuity. Feuferme like wardholding normally conferred perpetual heritable occupation, but it differed from the older form in carrying with it no trace of military or judicial obligation or payment of any arbitrary casualty. It first became popular in the course of the late fifteenth and early sixteenth centuries when the crown and the church alike felt the need for large money incomes in a hurry". In 1503, Sir Duncan, the second Laird, bought part of the 10-merk land of Finlarig from Lord Drummond of Stobhall and the remainder from James Muschet of Tolgarth in 1506.

Another Sir Duncan Campbell, 7th Laird of Glenorchy, paid 28,000 merks to Alexander Menzies of Weem in 1604 for the charters of the 12-merk land and former thanage of Crannich, Achmore, part of Morenish and the office of toisech or the 'tosheadorship' of Ardtalnage. He also purchased lands from the debt-ridden Robertsons of Strowan in 1623 (RMS 536):

> "...cartam Roberti Robertsoun de Strowane ... vendidit D. Duncano Campbell de Glenurquhy milliti, heredibus ejus et assignatis quibuscunque, redimabilem pro 1000 merc.- dimidietatem 4 mercatarum terrarum de Stronfernan jacentem super lie south side ejusdem, cum lie girssingis et scheillingis, in baronia de Strowane, vic. Perthe. ... 40 solidatas terrarum de Thometayvoir in Fernan, cum lie scheillingis etc., in dictis baronia et vic".

In a list of the Campbell of Glenorchy lands in 1642 (RMS 1058), the ancient titles for Crannich and Ardtalnage are still mentioned:

> Terras de Morinche, Eddremuckie, terras thanagii de Cranyk vocat. Cranyk, Achmoir et Candkinox(vel Cendknok), cum officio de toscheachdoraschipe de Ardtholony, cum maneribus, molendinis, lacubus, in baronia de Weymes (Weym), vic. Perth".

The 40-merk lands of Lawers had been held by the Campbells of Lawers since that cadet family was founded in 1473, but mounting debts compelled the sale of these lands and other possessions beyond Lochtayside, in 1693, to John Campbell, 11th Laird of Glenorchy and first Earl of Breadalbane, who at the same time acquired Carwhin and half the lands of Ardeonage. The Campbells of Lawers severed their connections with Lochtayside and settled at Fordie in Strathearn, which was renamed Lawers.

The extent of Campbell possessions on Lochtayside in the early 18th century can be seen from a Rental for 1718 in Appendix 7. By this stage only the area of Fernan was missing from Campbell ownership. The 30-merk lands of Fernan were held by the Robertsons of Strowan, as already noted, from the 15th century. Alexander Robertson of Strowan, a strong Jacobite supporter, lost his lands after 1745. Fernan was obtained from the Commissioners for the Forfeited Estates in 1767 by the 3rd Earl of Breadalbane, and by 1769 the Campbells of Glenorchy/Breadalbane were in control of all the lands on both sides of Loch Tay.

CHAPTER FIVE

LOCHTAYSIDE IN 1769: LANDS AND HOLDINGS

5.1 Population

The Act of Entail of 1770 (10 Geo. III. c. 51) was meant to encourage improvements, particularly agricultural improvements, by Scottish landowners. It has been suggested (McArthur, 1936, xx) that John Campbell, 13th Laird of Glenorchy and 3rd Earl of Breadalbane, with fore-knowledge of this Act, had his Lochtayside lands surveyed in 1769, before proceeding with reforms.

From the Survey of 1769 there emerges a picture of Lochtayside as it was in the third quarter of the 18th century, before any major changes were made. The immediate impression (Figure 9) is of a population density very much greater than that of today, a density which was still increasing. Pennant, in his Tour of Scotland (1769), writes: "The north side of Loch-Tay is very populous; for in sixteen square miles are seventeen hundred and eighty-six souls; on the other side, about twelve hundred". In the statistics recorded in Appendix 1, a total of 358 tenants for the north plus south sides of the loch is given. If each of these can be regarded as the head or one member of a family, and estimating six persons to a family, then a population figure of 2148 persons for Lochtayside in 1769 can be suggested. This is 838 less than Pennant's figure of 2986, but his source, accurate or otherwise, is not known and he probably included the villages of Killin and Kenmore in his total, so that there is a reasonable similarity in the figures.

5.2 Land Divisions

Pennant also noted the sub-divisions of the Breadalbane Estate: "I was informed, that Lord Breadalbane's estate was so extensive that he could ride a hundred miles an end on it, even as far as the West Sea, where he also has some islands. These great properties are divided into districts, called Officiaries: a ground officer presides over each, and has three, four, or five hundred men under his care. He superintends the duties due from each to their Lord, such as fetching peat, bringing coal from Crief, etc. which they do, at their own expence, on horses backs, travelling in strings, the tail of one horse being fastened by a cord, which reaches to the head of the next". William Marshall wrote his General View of the Agriculture of the Central Highlands of Scotland in 1794, but many of his references are to the situation as it was some decades earlier and in general to the Breadalbane lands, so that his words are highly relevant to the present study: "The larger estates are divided into OFFICIARIES: each consisting of an ancient barony, or of an arbitrary modern division, better suited to the present circumstances of the estate". The similarities between some of the Lochtayside baronies of late and post-medieval times and the 1769 officiaries can be seen in Figures 4 and 9.

Marshall continues: "On the banks of Loch Tay, these officiaries contain from one to three square miles of valley lands each; with their proportions of hill; comprising

from ten to twenty "towns" or farms; each farm, or petty township, being subdivided into farmlets; generally from two to six or eight in number; or, in some few instances, the farms remain entire, or have been brought back to their original entirety". On the 12 officiaries on Lochtayside in 1769, the number of farms or townships was as follows:

North Side

Terartar	-	5 farms
Morenish	-	5 farms
Etramuckie	-	1 farm
Kuiltyrie	-	2 farms
Carawhin	-	3 farms
Crannich	-	5 farms
Lawers	-	16 farms
Fernan	-	9 farms

South Side

Clochran	-	5 farms (not including Achmore)
Ardeonage	-	20 farms
Ardtalnage	-	21 farms
Taymouth	-	19 farms

Marshall's reference to towns being sub-divided into 'farmlets' can mean only the tenancies or tenants' holdings, which varied from one to ten on Lochtayside (Appendix 1). A few of these had separate cluster names within a town or farm, e.g. Marragnaha, Marragdow, Marragphuil and Tombour on Wester Carawhin, and Croftvellich and Blarmore on Easter Carawhin (Figure 26), but each of these sub-divisions had more than one tenant.

"In each of these officiaries resides a GROUND OFFICER, generally a principle tenant; whose office is somewhat similar to that of the bailiff of an English manor, but more extensive and more useful: he not only distributes orders or notices, from the lord or factor, to the tenants; but sees the services performed (from which he is himself exempt), the roads kept in repair, the removal of tenants, the settling of disputes, the forwarding of dispatches, etc. etc. etc.

Also in each officiary are BIRLEYMEN, sworn appraisers or valuers; who are called in by the ground officer (at the request of the manager) to settle disputes between the landlord and the tenants, or between tenant and tenant" (Marshall, 1794, 25). The most important official on the estate was the Earl's Chamberlain for Breadalbane, who handled most of the transactions dealing with rentals, tenancies, etc.

5.3 Rents and Size of Holdings

A part of the tenants' rent was paid in kind, varying from one-third to two-thirds of the total. A Lochtayside Rental of 1718 (Appendix 7) lists the rent as being in: "Mony, meall, bear, wedders, butter, lambs, boars, capons, chickens". Rent was also due in quite onerous services, such as the provision of men and horses for harrowing and harvesting, the cutting and carriage of peats and, as Pennant observed, the bringing of coals from Crieff, often at times when tenants most needed to be working on their own land. Another type of tenant is mentioned in the Rental of 1718 (Appendix 7), the steelbow tenant. By this system the landlord

gave his tenant stock, seed, cows, horses, timber and iron at entry to work his land, but this had to be returned at the end of the tenancy. It was disappearing during the 18th century and is not mentioned in the 1769 Survey.

The rental value of the townships is usually given in merks, a value originally set at 13s. 4d. Scots, but Farquharson has omitted this detail entirely for the north side of Loch Tay, whereas McArthur has recorded it for each farm on the south side, except for the Mill Croft and Kenmore Glebe (Appendix 1 and 4). In terms of rent, the farms on the south side with the highest valuation are the 4-merk lands of Finglen, Callelochane and Portbane, having 5, 8 and 8 tenants respectively. The holdings with the lowest valuation are the three pendiclers in Ardeonage, the crofters at Croft Dunard and the Boat-Croft of Tullich, each holding 1/4-merk lands.

The value and sizes of merklands have long been a source of discussion (Grant, 1930, 46-47; Dodgshon, 1973, 10-13), and there is no real evidence of uniformity throughout the Highlands (see Chapter 8.3 below). Macpherson (1969, 122-123) states: "The Highlands were evidently shared by two regional systems of land denomination, the gross units of which were the davoch and the merkland. The pennyland of Morar and Knoydart perhaps formed a third. The distinction between them was clearly one of terminology and of historical origins, while equation between them seems to indicate that they conformed, or had been made to conform, to a single system of national assessment". The merklands on South

Lochtayside seem to be about the equivalent of one plough in terms of working capacity (Appendix 1 and 4). In 27 cases out of 55 the merklands equal the number of ploughs, and the average is 1.05 merklands to one plough. In terms of acreage of infield per merkland, taking the South Lochtayside totals of 1078.303 acres of infield and 100.75 merklands, the merkland had an area of 10.70 acres of infield in this locality and in 1769. This fits in reasonably well with the tradition that the plough or ploughland was a formal sub-division of the davoch (see Chapter 8.3 below), a quarter-land or quarter of a davoch, containing two auchtens (one-eighth of a davoch or half a plough), and was equivalent to the merkland.

Writing 25 years after the Lochtayside Survey, William Marshall stated in the Old Statistical Account: "The subdivisions or real holdings of the present tenants do not contain, on a par, more than 5 acres of infield, 4 acres of outfield, 2½ of woody waste, with about 75 acres of muir". This generalisation is not far off the proportions for the south side of Loch Tay, but a much closer look at the details is necessary. Because of the variability and differing forms of information supplied by John Farquharson for the north side and by John McArthur for the south side, it is difficult to discuss the size of holdings with complete accuracy. McArthur lists the number of ploughs of land on the south side, but Farquharson does this only intermittently for the north side, although he does occasionally state how the ploughs were divided (Appendix 1), which McArthur does not.

The plough or plough-gate was reckoned as the amount of land that could be worked by a plough-team in a year. On Lochtayside the plough was divided into 'horsegangs' - 4 horsegangs to a plough. Pennant remarked of this area: "... the horses are little, and generally white or grey; and as the farms are very small, it is common for four people to keep a plough between them, each furnishing a horse, and this is called a horse-gang" (1774, 92). It is interesting to note (see 5.6 below) that the ploughs for south Lochtayside agree almost exactly with the numbers of horses held by each farm, in a ratio of 4:1. Farquharson does not mention ploughs, e.g. at Etramuckie, but he gives there the names of 9 tenants with the note - "Each a horsegang" - so at 4 horsegangs to the plough we can assume 2¼ ploughs for that farm. McArthur makes no mention of horsegangs at all. A number of crofters' and pendiclers' holdings are recorded by him for the south side (Appendix 2) and shown on the relevant plans (e.g. Figure 36), but none are recorded for the north side where Farquharson occasionally mentions crofters or cotters (e.g. at Stroan-Fernan), but with no reference to their holdings. The minister for the parish of Kilmartin, writing in the Old Statistical Account (1793, vol. 8, 97), describes township populations: "The tenants, particularly of arable farms, have but small possessions, only the fourth part of a farm, or what is called here a <u>horsegang</u>; so that there are generally 4 upon every farm, and sometimes 6 and 8 when it is a large one. The work of the farm is carried on in common among the whole tenants, with their wives

and children. They seldom employ any servants (see Chapter 8.5 below), and such only occasionally, when their children are not of age to give any assistance".

The greatest number of tenants on the north side is 10 for the farm of Blarliargan, followed by 9 for Etramuckie, Wester Carawhin and Stroan-Fernan. On the south side, 8 tenants were recorded for Callelochane and for Portbane. With 47 farms on the north side and 182 tenants, this would give an average of 3.87 tenants per farm, but we have no details of the crofter/pendicler holdings. On the south side, excluding the crofters and pendiclers, there are 52 farms and 176 tenants, giving an average of 3.38 tenants per farm - perhaps a reflection of the greater population density of Discher or Deshoir (Deasir Locha Tatha) - 'the north or sunny side of Loch Tay'.

Average holdings may be listed as follows:

North Side - 47 farms

26.95 acres infield per farm

22.00 acres outfield per farm

116.00 acres grass, meadow, wood per farm

164.95 acres per farm below the head dyke

North Side - 182 tenants

6.96 acres infield per tenant

5.68 acres outfield per tenant

17.31 acres grass, meadow, wood per tenant

29.95 acres per tenant below the head dyke

South Side - 52 farms

19.67 acres infield per farm

13.08 acres outfield per farm

60.43 acres grass, meadow, wood per farm

93.18 acres per farm below the head dyke

South Side - 176 tenants

5.81 acres infield per tenant

3.86 acres outfield per tenant

17.85 acres grass, meadow, wood per tenant

27.52 acres per tenant below the head dyke

The difference in infield holdings might be partly explained by the omission of crofters' and pendiclers' holdings from Farquharson's records of the north side, but this cannot explain the difference in outfield holdings, since crofters and pendiclers had no outfield. There is no doubt about the generally smaller size of the farms along the south side of the loch and their proportionately lesser quantities of arable land. It would appear that, on average, the tenants of the south side had each almost 2 acres of outfield less than the tenants of the north side.

Averages do not, of course, give the true picture. The single tenant of Finlarig on the north side, had 60 acres of infield, 53 acres of outfield and a total acreage below the head dyke of 455, whereas the 10 tenants of Blarliargan, who had equal shares according to Farquharson's notes (each one 'horsegang' or 1/4 plough), each had 3.10 acres of infield, 4.23 acres of outfield and a total below the head dyke of 12.08 acres. These extremes did not exist on the

south side, where there were no large single-tenant holdings apart from Tomour and Suckoch, which was a large grazing farm. Milton of Ardtalnage with Croftdow had 25 acres of infield, 3 acres of outfield and a total acreage below the head dyke of 47.04 for one tenant. Callelochane, assuming equal shares, had for each of 8 tenants 4.62 acres of infield, 2.91 acres of outfield and a total acreage below the head dyke of 39.13 acres. One farm on the south side, Rovucky, was unusual in that it had 7.062 acres of infield to be divided among five tenants, giving 1.41 acres each, and a further 1.78 acres each of grass, meadow and wood. This is the smallest of all, but the absence of outfield suggests that this was not a normal tenancy, but rather a shared croft, although no mention is made of this in the Survey. These figures again emphasise the small proportion of outfield on the south side. McArthur (1936, xlvi-xlvii) discusses the infield/outfield proportion and quotes Hamilton (1932) who noted the Lochtayside acreages but generalised that outfield ".... was of much greater extent than the infield, probably four-fifths of the whole arable land of Scotland being comprised in this category". This may have been true for some other areas of Scotland or at some earlier time, but on Lochtayside in 1769 the outfield figure was only about two-thirds that of the infield. On the north side, out of 47 farms, 14 had a greater proportion of outfield to infield (e.g. Croftantayan, Figure 27a, had only 44.99 acres of infield, but 68.67 acres of outfield). The south side had

7 farms out of 52 where outfield proportion was greater than infield, but in general the outfield sizes were very small. For example:

No. in Figure 9	Farm	Infield	Outfield
16 and 17	Tomour and Suckoch	20.775	3.600
28	Tomindason	11.156	3.969
40 and 42	Milton of Ardtalnage and Croftdow	25.112	3.056
43	Lickbuy	16.181	5.944
44	Skiags	23.375	6.788
45	Shenlarich	19.419	6.037
46	Keprannich	18.681	5.144
65	Kenmore Glebe	9.600	1.450

It can thus be repeated that farms and holdings were smaller on the south side and that outfield was scarce.

The infield/outfield system was clearly explained by the minister of Kilmartin Parish in the Old Statistical Account, already quoted (vol. 8, 1793, 258-259): "The arable land is divided into in-field and out-field; the in-field into three equal parts; in one of these there is bear, in another oats, and the third is mostly in potatoes. Next year, the bear follows the potatoes, oats the former bear, and potatoes the division which was last in oats. This rotation is continued from year to year; the manure being generally lime, and the dung the cattle makes in winter. The out-field is allowed to lie ley, or in pasture, for 2 years, and the milk cattle and sheep are folded upon it: Then there are 2 running crops of oats, and sometimes 3, taken of it, and the same rest, and cropping is continued, being the general process of agriculture in this country".

The outfields were squeezed right up to the head dyke on many south-side farms (e.g. Figures 44, 45 and 46) and Easter Tullich (Figure 46) had actually colonised a patch of outfield above the head dyke (named Raor Aro on McArthur's plan) at about 1100 feet (335 metres) above sea level. The combination of Gaelic word-elements for outfield (roer, raor) and shieling (aro, airidh) is interesting here. Revane and the 6 farms east of it on the south side are listed by McArthur as having a shieling "immediately above their farms", and there are remains of possible shieling bothies just above the 1769 head dyke at Craig, the farm immediately east of Easter Tullich (Figure 48, Plates 51 and 52). The possibility that a similar shieling area had been colonised by Easter Tullich for outfield, considering the scarcity of that type of land, could be suggested. Many farms in the eastern part of the south side have projecting areas of head dyke suggesting 'intakes' from the moor. Mains farm at the mouth of the Ardeonage Burn had its outfields detached well up in the valley of the Newton Burn (Figures 37 and 38). McArthur notes on the plan of the area: "... the above Mains outfields is detached from the farm by straight line one mile and 14 roods. By the course of the road 1 mile 64 roods". It would be interesting to know just when this intake from the moor was initiated, particularly if it were contemporary with increasing population and was perhaps undertaken to relieve pressure on the restricted arable by the lochside.

There are patches of outfield just below the head dyke on the north side as high as 950 feet (290 metres) on Rheninchuleigh and 1000 feet (305 metres) on Wester Carawhin (Figure 26). The head dyke is highest on the north side of the loch between Rheninchuleigh and Cuiltir-annich (Appendix 3), reaching its greatest of about 1500 feet (457 metres) above sea level at Wester and Easter Carawhin and Cary (nos. 14, 15 and 16 in Appendix 3), where Farquharson's plan shows an 'old head dyke' and a higher 'new head dyke' (Figure 26), the land between them listed as "grass taken from the muir". Along the south side, the head dyke is mostly below or just on the 1000 feet (305 metres) contour, except in the valleys at Ardeonage and Ardtalnage, where it reaches 1900 feet (580 metres) at Claggan and Leadour in Glentalnage (nos. 35 and 36 in Appendix 3).

5.4 Tenancies

One of the best known classes of tenant in the Highlands, the tacksman, seems to be rare in Breadalbane at this period. Although there were tacksmen mentioned on the Argyll lands of the Breadalbane family, they were not in evidence on Lochtayside in 1769, where the tenants appear to have held directly from the Earl, without intermediaries. In a recent study of written leases in the 17th century, Whyte (1979b) noted that, of 119 Breadalbane Estate tenants in 1674, only 39% had written tacks or leases, the other 61% having verbal leases. A few tacks were being given

after 1769 and part of the substance of such an agreement is shown in Appendix 9. Despite the reforms of the 4th Earl (1782-1834), the minister at Kenmore reported as late as 1845 in the Second (New) Statistical Account that - "leases have as yet been but rarely granted". Leases obviously varied in length from region to region, but the consensus seems to have been that they were nowhere long enough and were a major obstacle to good farming practices. The observations of a number of ministers writing in the Old Statistical Account are worth noting. The Rev. James McDiarmed, minister of the parish of Weem, part of which bordered on Loch Tay, wrote in 1792-3: "Another great hindrance to agriculture in general, is the want of leases. While a man possesses a farm only from year to year, at the will of his landlord (which is the case here) he can have little spirit for improvement, as he is altogether uncertain who is to reap the fruits of his industry". The minister of Kilmadock or Doune observed in 1797: "It is manifest injustice towards a tenant to make him bound to erect dikes or houses that ought to last at least 100 years, and give him only a 19 years lease. None but fools, madmen, or poor ignorant tenants, shuddering before their laird, would bind themselves so absurdly". Even more impassioned were the words of the minister of the parish of Kirkmichael in 1794: "Few of the tenants enjoy leases of their farms. Holding their small possessions by a short and uncertain tenure, they are kept continually in a state of abject dependance on their landlords. It must be manifest to every

observer, that the situation in which the peasantry are thus retained, has a strong tendency to repress the exertions of industry, to extinguish the ardour of patriotism, that attachment to his native soil, which grows spontaneously with such warmth in the breast of a Highlander; to quench the spirit of freedom and independence, and "Freeze the genial current of the soul". Is it that the landlords are apprehensive of deriving no benefit to themselves from granting leases; or of their tenants not having money or skill, or industry, for making improvements? Or is it that the tenants are unwilling to bind themselves for a number of yeărs, to modes of cultivation with which they are little acquainted? Or is it, that men, on whom wealth and power have conferred one kind of superiority, find, in the exercise of that superiority, and in receiving that servile dependence of their inferiors, a gratification which they cannot be persuaded to relinquish?"

In 1769 there were 358 tenants on Lochtayside, 182 on the north and 176 on the south. As has already been noted, their holdings varied in the extreme, and these should also be seen in terms of the run-rig system of the time, where even a very small holding might be scattered across several patches of infield or outfield. James Headrick, writing about the situation on Arran as late as 1807, stated: "The cultivated land is occupied in run-rig, or in narrow strips called butts, with intervals betwixt them, whose possessors are changed every second or third year. Each farm constitutes a societas arandi, or township, where a

number of families, sometimes to the extent of from fifteen to twenty, are concerned in its cultivation, who divide the different ridges or butts among them, either according to the old usage, or according to certain regulations agreed among themselves; and if there be a butt or ridge remaining after the division, it is subdivided by marks of stone, or sticks, into parcels corresponding to the interest each family has in the whole farm. A ridge, or patch, is frequently seen with fifteen to twenty divisions of that sort marked upon it" (Headrick, 1807, 309).

The drawbacks of the system are well illustrated by a letter of 1783 among the Breadalbane Estate Papers to the 4th Earl from his Chamberlain in Argyll: "Many farms have eight tenants ... these eight tenants labour the farm and carry on all their works together. First they plow the whole land, then they divide every field or spot of ground which they judge to be of equal quality into eight parts or shares and cast lots for what each is to occupy for that crop. After this each sows his own share and reaps it again in harvest and so they go on year after year. ... often more time is spent in contending not only what work is first to be done but also the manner in which it is to be done than would actually carry the double into execution, and that none may do less than his neighbours, all go to a piece of work which perhaps might be done by one. By this much time is lost and contentions often arise to a disagreeable and troublesome height. Further, by this method there is

no encouragement for one man to improve and manure his lands better than his neighbour, as what he occupies this year may not fall to his share next. The diligent and industrious reaps no more benefite than the most lazy and indolent of his neighbours". The major advantage of the system was in its sharing of all qualities of land on a farm.

Marshall (1794, 21) discussing the food of tenants, observed: "A vegetable diet, with milk and its productions, prevails throughout the Highlands. Animal food is rarely tasted by the lower order of tenantry. Oatmeal is the great support and strength of the Highlander, and is, probably, the most substantial of vegetable foods. In supporting severe bodily exercise, it is found to be much superior to wheat flour; which, at present, makes no part of the Highlander's food. "Beer" - big - or four-rowed barley, nevertheless, enters largely into their diet; especially in bread: peas, too, are eaten in a similar shape, namely, thin flaccid cakes, called bannocks; the ordinary bread, even of the gentry, or lairds. Of late, potatoes have become a principal food of the common people, especially in winter; and are considered the greatest blessing that modern times have bestowed on the country; in having, it is probable, more than once saved it from the miseries of famine". The great benefits of the potato are mentioned by many writers, Home mentions (Chapter 9 below) its usefulness in bringing areas of land into cultivation. The great study on this subject is Redcliffe Salaman's <u>History and Social Influence</u>

<u>of the Potato</u> where, in reference to the Scottish Highlands, he states: "But what, in fact, occurred was little short of a miracle: a quarter of a million people made the economic journey from the thirteenth to the eighteenth century, not in 600 years, but in less than sixty. A miracle not wrought by magic carpet or time machine, but by the use of a new food stuff which, once scorned and rejected, was to become the cornerstone of their social structure. Neither State, nor Church, nor public opinion, intervened to help or protect the Highlanders, though they were not ignorant of the distress of the people. The Law Lord Kames, so admired by Boswell, writing from Blair Drummond in 1776 (in <u>The Gentleman Farmer</u>), urges the planting of the potato: "... as potatoes are a comfortable food for the low people, it is of importance to have them all the year round ... of late years they have been found to answer even till April; which has proved a great support to many a poor family as they are easily cooked and require neither kiln or milk"".

5.5 <u>Crofters, Pendiclers, Cotters</u>

A class inferior to the joint-tenants on Lochtayside were the crofters, or 'acre-men', so called because they held only a few acres of infield or 'croft', no outfield and no moor. They could also hold some grass, meadow and wood, and had a few cattle which were herded with those of the joint-tenants. Their land was not re-allocated in the same way as the tenants', but remained fixed. Marshall (1794, 33) refers to them as: "... a species of subtenants on the farms to which they are respectively attached. Besides

one or two "cows holdings", and the pasturage of three or four sheep, they have a few acres of infield land (but no outfield or muir), which the tenant is obliged to cultivate; and they, in return, perform to him certain services; as the works of harvest and the casting of peats; the tenant fetching home the crofters' share". The minister of Kilmartin, in the Old Statistical Account, explained briefly: "The crofter is tenant of a still smaller possession. He occupies a piece of arable land, marked out for himself, which may be from 1, to 2, or 3 acres, though not generally measured, with grass for 1 or 2 cows, in common with the cattle of the next farm". Crofts were often given to schoolmasters and others who were not full-time farmers, and place-names, e.g. Mill Croft, Boat Croft, Piper's Croft, Ferrier's Croft, Ale-House Croft and Baker's Croft, indicate persons providing a service to the community. Those listed and named by McArthur on the south side of Loch Tay probably held their land directly from the Earl (Appendix 2); others, unlisted, who could have been numerous, were undoubtedly placed by the joint-tenants themselves. The minister of Kilmartin points up the value of this type of holding: "It were to be wished that this mode could become more general, and the crofts made larger, as it is found, that a piece of land, in the management of 1 man, with ordinary care and industry, will make it more productive, in proportion, than a larger extent, when under the direction of a greater number".

Another group similar to the crofters were the pendiclers, who had pendicles or pieces of land attached to the farm township. They, like the crofters, had only a few acres of infield and some grass, no outfield. Those listed by McArthur might again have been only the 'official' holders on the south side (Appendix 2). An example of crofters' and pendiclers' holdings in Ardeonage officiary is shown at Figure 36.

Lowest of all were the cotters or cottars, who occupied the cottages, cott-houses or cotteries on the joint-tenants' farms. They held an acre or two of infield from the joint-tenants which, unlike the crofters' or pendiclers' holdings, were not fixed and could be moved at the will of the tenants. In some areas they had the right to graze a cow on the hill pastures. Their land was ploughed and harrowed by the tenants who also carried home their peats. In return for this the cotters performed services for the joint-tenants and many of them were, in fact, farm servants or labourers. The minister of Kilmartin wrote in 1793: "The cotters are the most numerous class, in which are comprehended the tradesmen, the day labourers, the old infirm reduced tenants, and several widows. The cotters possess only a small house and garden, sometimes without a cow's grass, and even potatoe land, but what he must purchase from the tenants". Another group, known as 'dry house cotters', had neither corn land nor grazing, but only a house and a kailyard (Mason, 1947). McArthur makes no mention at all of cotters on the south side of Loch Tay and Farquharson only mentions them in passing

for Easter Kuiltyrie, Tommantaymore, Ballinuarn, Stroan Fernan and Port of Loch-Tay on the north side.

Although they are barely mentioned in the Survey, except where they appear to hold directly from Breadlabane, these latter types of sub-tenant were increasing greatly in numbers in the later 18th century, forming what might be regarded as a large but often concealed element or 'sub-stratum' of the agricultural population. Some of these sub-tenancies could have been created as the result of tenants giving a small piece of land to their sons or other relatives, others may have been simply a further sub-division of tenants' land to accommodate an increasing population which was gradually over-stretching its means of subsistence. That the problem did not reach its peak until the early years of the 19th century can be seen from the list among the Breadalbane Papers of crofters and cotters on Lochtayside in 1822 (Appendix 10). At the end of the list for Killin Officiary a note is appended: "It appears that twenty five cotters have been placed in this Officiary since the year 1817 by whose sanction or permission is not explained". The problem was obviously aggravated by agricultural improvements and changes. The minister of Kilmartin wrote in 1793 of the previous 20 years: "What has affected the population most, within that period, is, the laying out of some lands entirely in pasture; 2 or 3 farms now being thrown into the hands of one grazier, which were formerly possessed, some by 4, and some by 8 tenants each, but the residence of only a

herd or two: And at the end of the leases, which are very short in this country, (being only from 5 to 7 years with the lower order of tenants), such farms as are adapted to it are, almost always, laid out in pasture. This has not operated, however, so much against population in general, as against a particular class of the inhabitants. It reduces the number of the tenants, but it adds to that of the cottagers, as they are often upon some of the farms that are laid out in pasture". This remark holds good also for Assynt (Chapter 8.5 below) where some farms had no tenants at all (e.g. Batachrianan) but only occupants looking after the grazings. The Kilmartin minister also noted: "Upon many of the farms, some of the former possessors are retained as cotters, and others are put in, to preserve the houses, or biggings, as they are called, in case it might be found necessary, at some future period, to return to the former mode of occupying the farm by small tenants, particularly farms adapted for tillage". His list of parish population, and particularly the numbers of non-tenants, is interesting:

Situation of the Inhabitants	Number of Families	Average of Persons in each	Total
Gentry	6	11	66
Tenants	100	6	600
Crofters	24	6	144
Crofters or cottagers	133	5 nearly	665
Change-keepers	9	7	63

The numbers of crofters and cotters may be unusually great here, but a similar state of affairs seems to have been developing on Lochtayside and in other Highland regions.

That the crofter/cotter population on Lochtayside had grown considerably by the early 19th century has already been mentioned with reference to the figures in Appendix 10, but there must have been considerable numbers already in 1769. A case in point might be the township of Miltown of Finlarig on the north side, where only one tenant was listed in the Survey, but where 4 separate settlement clusters containing altogether 19 buildings and 8 yards existed on Farquharson's plan (Appendix 5). This and other discrepancies between numbers of tenants and settlement clusters could be partly explained by many townships having a 'non-listed' sub-tenant population. One further piece of information might be added: from a list of statistics collected by the Commissioners for the Forfeited Estates for the Barony of Fernan (Robertson of Strowan) in 1755-56, before it came into the possession of the Breadalbane family:

Farm	Tenants	No. of Persons	Cotters	No. of Persons
Tomintyvoir (Tommantaymore)	3	22	3	12
Balinearna (Ballinuarn)	4	23	2	3
Corrochern (Corricherrow)	4	25	1	3
Croftnaline (Croftinalen)	4	21	1	1
Balmenach (Ballimenoch)	3	17	-	-
Borland	6	33	2	5
Stroan-fernan	10	55	12	25
Lagfernan (Lag-Fern)	2	11	1	2

(The 1769 version of the farm name is in brackets)

It is difficult to believe that this cotter population could have disappeared by 1769, only 13 years later, or that no

other cotters were in evidence along the northern side of the loch. Perhaps cotters were not regarded as important enough to be mentioned separately, although Farquharson does occasionally hint at this missing element. At Easter Kuiltyrie: "Here are seven families besides cotters, etc."; at Tommantaymore: "Besides these are 2 cotters"; at Ballinuarn: "...2 cotters etc."; at Stroan-Fernan: "Likewise 7 cotteries and 1 Croft"; at Port of Loch-Tay: "The possessor of this town is Col: Campbell. He has in it seven Crofters and a Cotter". If this is a true indication of each town's non-tenant numbers, then the population figure for Lochtayside in 1769 would be close to Pennant's figure mentioned above.

5.6 Cattle, Sheep, etc.

The figures for stock holdings have to be taken from McArthur's lists for the south Lochtayside farms, since this is not mentioned for the north side by John Farquharson. In calculating average holdings for the south side, crofters', pendiclers' and cotters' stock, where separable, have been excluded. Also excluded from the figures is the farm of Tomour and Suckoch. This farm was unusual for Lochtayside, being a large, single-tenanted grazing farm with stock as follows: 200 cows, 500 sheep, 4 horses, 30 harrowers (young unbroken horses) and 30 goats.

	Total	Average per Tenant
Cattle	1393	7.9
Sheep	4703	26.8
Horses	366	2.09
Harrowers	327	1.8

The number of goats recorded (198) was small, and they were held on only 8 farms:

Newtown	- 24	Claggan	- 36
Finglen	- 12	Leadour	- 24
Suckoch & Tomour	- 30	Tullichglas	- 24
Achomir	- 24	Tomflour	- 24

It will be noticed that goats were held only on the higher-lying farms 'up the glen' at Ardeonage and Ardtalnage.

The numbers of horses stocked could be related to the use of the four-horse plough and therefore to the plough or ploughland capacity of each farm:

Farm	No. of Ploughs	No. of Horses
Newtown	2	8
Tomindason	1	4
Lurg	3	12
Callelochane	4	16
Aleckich	1½	6

This ratio is the same for almost all the south side farms, about 4:1. An occasional farm does not fit - e.g. Finglen was a 3-plough farm but had only 10 horses - so that the horses per plough average is 3.94.

With the holdings of cattle, probably even more on the north side, it was obvious that Lochtayside was contributing to the general cattle-droving industry of the Highlands. The farm of Suckoch and Tomour shows a trend towards larger, mainly grazing farms that was to develop greatly over the next few decades. However, it was sheep rather than cattle that were to dominate, although it was not until the time of the 5th Earl and 2nd Marquis of Breadalbane (1834-1862)

that any large clearances took place, when the farms in Clochrane, Morenish, Kuiltyrie and over in Glen Quaich were converted to sheep run.

5.7 Other Occupations

The great majority of the inhabitants of Lochtayside were engaged in farming in 1769. There must have been others, tradesmen, craftsmen and those who rendered specialised services to the community, but apart from those whose names or trades were associated with a particular croft (see 5.5 above) it is not possible to distinguish them in the Survey. The millers were important in the community and they generally had a croft on the township where the mill stood. Several mill crofts are listed for Lochtayside in the Survey. Schoolmasters were also given pieces of land; Farquharson shows three schoolhouses along the north side of the loch. These and a school at Ardeonage had been set up in the first half of the 18th century by the Church and the Society in Scotland for Propagating Christian Knowledge. There was a Boat-Croft at Tullich, probably for the ferryman who operated between there and Miltown of Lawers on the north side, and an Ale-House Croft at Tynaline on Finglen in Ardeonage. Lacking further information, it might be suggested that some of the occupations of the crofters and cotters listed for the early 19th century (Appendix 10) could have existed on Lochtayside in 1769, but 'invisible' to the surveyors. Among these were tailors, weavers, labourers, a "wood herd",

shoemakers, smiths, a "Boat ferrier" and a midwife. These were all important to the community as a whole but would not normally show up in a mainly agricultural survey. The Old Statistical Account for the parishes of Killin and Kenmore showed that in 1793 there were 99 weavers, 50 tailors, 50 wrights, 45 shoemakers, 20 flax dressers, 16 smiths, 8 coopers, 7 merchants, 4 hosiers, 2 bakers and 1 dyer. Many of these would be in centres such as the villages of Killin and Kenmore but some would undoubtedly be part of the non-agricultural population along the north and south sides of Loch Tay.

CHAPTER SIX

THE LOCHTAYSIDE SETTLEMENT PATTERN AND ITS REMAINS

6.1 The Towns or Farms

Within the officiary, as previously mentioned, the major division was the town, township or farm. These varied considerably in size (Figure 9): the largest on the north side of Loch Tay was Finlarig, with 455 acres (all references to areas are in Scots acres, see Appendix 29) below the head dyke and Stroan-Fernan with 324 acres below the head dyke. Callelochane (313 acres below the head dyke) was the largest farm on the south side. The smallest farms on the north were Marragintrowan with 33 acres and Wester Cleunlaur with 35 acres; on the south, the smallest were Tomindason, with 28 acres, and Ten-Shilling Land, with 29 acres. Tomour and Suckoch, on the south side, had a total of 330 acres below the head dyke, but this was a large, single-tenanted grazing farm, an exception on Lochtayside in 1769. These were extremes, however; the average size of a township below the head dyke (leaving aside the crofters' and pendiclers' holdings) was about 105 acres.

The possibility that the townships of the time of the 1769 Survey were already smaller than the equivalent earlier units has been mentioned above. R.A. Dodgshon has suggested the splitting of many Scottish townships before the 18th century (Dodgshon, 1977). He draws attention to the wide-spread arrangement of modern Scottish farms into small, related groups or pairs. These groups or pairs are usually

distinguished by place-name prefixes like East, West, Mid, Nether, Lower, Upper and Meikle or suffixes like Mor(e) or Beg. Such seemingly split farms have always been regarded as the product of runrig divisions carried out during the eighteenth and nineteenth centuries. However, various sources show that many examples, possibly the majority, existed before the eighteenth century. In a few select cases, it was even possible to locate direct documentary evidence for the early splitting of towns. From this evidence, it was concluded that splitting was an ongoing process throughout the medieval and early modern periods. No single cause is favoured. The desire to remove runrig between two or three heritors, to combat the problems of growing scale or land-holding complexity, fragmentation through alienation or a division between co-heirs could all play a part. Possible examples of this were Easter and Wester Kuiltyrie, Easter and Wester Carawhin and Wester, Middle and Easter Cleunlaur on the north side of Loch Tay, Wester and Easter Tullichcan, Wester and Easter Tullich, Wester and Easter Lurglomman, Wester and Easter Croftmartage, Wester and Easter Acharn and Wester and Easter Ballinlaggan on the south side. The 'Three Lawers' (Lawermoir, Lawermanach, Glenlawar) mentioned in a 15th century charter (Chapter 4.4 above) had been fragmented into 16 farm townships by the time of the Loch-tayside Survey in 1769.

The typical township had a frontage on the shore of Loch Tay and stretched uphill to the head dyke (cross-section,

Figure 2). There were exceptions to this: Marrag-ness (Figure 11), Cary, Craggan Nester, Tomb, Drimnaferoch, Cuiltirannich (the last 3 on Figure 29) and Lawernacroy, on the north side, had other farms between them and the Loch shore, as had the various farms penetrating the valleys at Ardeonage and Ardtalnage on the south side (Figures 37 and 49). Other farms, e.g. Miltown of Lawers (Figures 28, 29 and 30) on the north side, and Mains on the south side, were on the loch shore but were separated from the head dyke by other farms lying above them. This usually called for the use of a 'loaning' or track by which cattle could be driven through adjoining farms to reach moor grazings or shielings. This was particularly the case with Miltown of Lawers, which had a detached grazing right up against the head dyke (Figure 30), and Mains, whose whole outfield area was completely separated from the farm (Figure 38).

6.2 The Settlement Clusters

The remains of the houses and other buildings of the tenants on Lochtayside form the major surviving element of this former settlement pattern. These clusters or 'clachans' as they are termed by Fairhurst (1960, 1964) and Gailey (1962), vary greatly in degree of preservation. Some stand quite high, with complete gables in some cases, others are no more than the foundations or one or two courses of dry-stone walling, sometimes grown over with turf or peat.

Demonstrating that the buildings have the same sites and orientation as on the 1769 Survey is far from easy, but

it has been found to be possible in some cases, as will be seen. The lack of standardisation of approach and methods between John Farquharson on the north side and John McArthur on the south side is one of the major drawbacks in attempting to reconstruct the former settlement pattern from field remains. Samples of the two surveyors' plans are shown at Figures 10, 12 and 42. McArthur's layout, orientation and number of buildings can be relied upon in most areas, whereas Farquharson's locations and orientation of buildings on some townships seem much more sketch-like and even haphazard, the black oblongs representing houses, barns, etc., seemingly scattered indiscriminately on some townships. Most of Farquharson's oblongs are shaded solid black but there are some examples (e.g. the small 2-building clusters on Etramuckie) where only unshaded outlines are shown. This might be taken to indicate buildings which were disused or even unroofed at the time of the Survey. However, a caveat against unqualified acceptance of this as a standard convention can be seen on Croftantayan (Figure 27a) where, in one cluster of 27 buildings and another of 2 buildings all are unshaded. Farquharson's plan has been re-drawn at Figure 27a but the buildings have been shaded in for the sake of clarity. A useful reminder of function is given on McArthur's plan of Wester Tullich on the south side (Figure 44), where some oblongs are labelled "sheep houses".

The statistics of size, height, etc., for a selected number of settlement clusters on both sides of Loch Tay are given in Appendices 5 and 6. The heights vary considerably,

the main concentration of clusters (more than 60) lying between 450 and 750 feet (137 and 229 metres) above O.D. on the north side, between Ardvoile and Cuiltirannich, an area in which were located the largest farms and the greatest concentration of population on Lochtayside in 1769. The greatest height of settlement clusters on the north side in general is about 825 feet (251 metres) (Appendix 6). However, there are remains of clusters on Blarliargan (X on Figure 17) and on Cary at about 930 feet. These are not shown on Farquharson's 1769 plans, but are on the first edition of the Ordnance Survey 1:10,560 (6-inch) map, surveyed in 1862. The cluster on Cary is named 'Upper Cary' on the O.S. map and is in all probability a post-1769 expansion of settlement due to increasing population.

It is interesting to note that the greatest heights of settlements do not occur on the north side with its more favourable aspect, but on the south side of the loch. This seems to have been determined by the necessity to penetrate and colonise into the glens at Ardeonage and Ardtalnage, with a consequently higher arable and settlement area, including the highest stretch of head dyke on Lochtayside (Appendix 3). Only 17 of the 133 clusters selected lie above 800 feet (244 metres); of these, 16 are on the south side - 5 in the glen south from Ardeonage, 11 in Glentalnage, where the highest cluster, on Leadour (Figure 49) lies at about 1200 feet (366 metres). The relatively small number of clusters close to the lochside can perhaps be explained by poor drainage of the soil in some of these lower-lying areas.

The number of clusters per farm ranges from 1 to 8:

8 clusters	1 farm (Etramuckie) on the north side
6 clusters	3 farms (Tommachrochar, Blarliargan, Easter Carawhin), all on the north side
5 clusters	3 farms (Ardvoille, Easter Kuiltyrie, Wester Carawhin), all on the north side
4 clusters	2 farms (Milton, Ballemore), both on the north side
3 clusters	11 farms, 3 on the north side, 8 on the south side
2 clusters	19 farms, 8 on the north side, 11 on the south side
1 cluster	13 farms, 5 on the north side, 8 on the south side

From this and Appendix 5 it can be seen that the largest numbers of settlement clusters per farm are on the north side, in the same area of large farms and high head dyke. Apart from Callelochane, which was the largest farm on the south side with 8 tenants and 5 clusters but not included in the sample under discussion here, there were no farms on the south side with more than 3 settlement clusters. From the sample studied in detail, on the north side there were on average 3.16 clusters per farm, on the south side 1.86 clusters per farm. Etramuckie, on the north, had 9 tenants in 1769 and the largest number of settlement clusters (8) of any farm on Lochtayside. Blarliargan, also on the north, had 10 tenants, the largest number in the 1769 Survey, but only 6 settlement clusters. At the other end of the scale, on the south side, there were several (e.g. Mains, Twenty-Shilling Land, Achomir and Tullichglas) with 2 tenants per

farm and only one settlement cluster. Tomour had only one isolated building, no clusters at all, but this was a large grazing farm joined to Suckoch under one tenant and probably an exception at the time.

A considerable variation can also be noted in the size of clusters:

North Side

A sample of 25 farm townships with 79 clusters containing 479 buildings, plus 126 yards. Also 16 isolated buildings and 4 isolated yards.

3.16 clusters per farm

6 buildings per cluster

19.8 buildings per farm (including isolated buildings)

1.6 yards per cluster

5.2 yards per farm (including isolated yards)

South Side

A sample of 29 farm townships with 54 clusters containing 297 buildings, plus 77 yards. Also 31 isolated buildings and 4 isolated yards.

1.86 clusters per farm

5.5 buildings per cluster

11.3 buildings per farm (including isolated buildings)

1.42 yards per cluster

2.79 yards per farm (including isolated yards)

North and South Lochtayside

A total sample of 54 farm townships with 133 clusters containing 776 buildings, plus 203 yards. Also 47 isolated buildings and 8 isolated yards.

2.46 clusters per farm

5.83 buildings per cluster

15.24 buildings per farm (including isolated buildings)

1.52 yards per cluster

3.9 yards per farm (including isolated yards)

The largest cluster would appear to have been Cluster A on Croftantayan (Figure 27a) with 27 buildings, but this cluster had been drawn by Farquharson with every building in outline only, completely unshaded. The much smaller Cluster B on the same farm was also unshaded. This might simply have been an oversight on the part of the surveyor, since there is no mention of it in Farquharson's notes on the farm, where he gives the names of 6 tenants. Apart from this, the next largest cluster is on Cary, with 16 buildings. Croftvellich cluster on Easter Carawhin had 11 buildings, and Cluster A-B-C on Wester Kuiltyrie (Figures 23 and 24) had 10 buildings. This latter cluster is difficult to separate and it may be an example of smaller groups "agglomerating" or growing together, a process which may have produced Cluster A on Croftantayan. The smallest clusters are those with only 2 buildings and there are several of these on both sides of the loch. An important element of the settlement pattern was the stack-, stock- or kail-yard, a number of which were to be seen on each farm township. They were discussed by Gailey (1963, 108): "Under runrig, the only other feature which could conceivably be classed as an enclosure was a small stack-yard or kail-yard. This was a common but not

universal feature in Highland clachans. Some settlements had only one, but others had two, three or even more of these little enclosures. In discussing Highland clachans, Fairhurst has called these 'garths' (Fairhurst, 1960): "...These little enclosures frequently appear on contemporary maps and estate plans, and many ruined joint-farm settlements in the Highlands may rapidly be identified in the field by these garths which remain long after all trace of their associated dwellings has disappeared, partly because they often had trees planted round them for shelter. ... From the field evidence of western Perthshire generally, it is possible that the number of these enclosures on a particular site may reflect the number of joint-tenants which held that joint-farm, on the basis that each joint-tenant had a separate stack-yard thus distinguishing him from a cottar who had none". The latter statement is only partly true in relation to Lochtayside. Of the 54 farm townships in the sample studied, only 18 (6 on the north side, 12 on the south side) have the same number of yards as tenants, and even on these there are some clusters which have no associated yards. So there is no simple yard/tenant relationship. Attempts to equate numbers of clusters with numbers of tenants have also proved fruitless. Tommachrochar (Figure 14) had 6 tenants and 6 clusters but this was probably coincidence. As might be expected, a number of single-tenant farms had only one settlement cluster, but in general there was no tenant/cluster equation. A good

example was Milton of Finlarig on the north side, with only one tenant but with 4 clusters containing altogether 19 buildings: This serves to emphasise two important points: firstly, we have only partial information from Farquharson and McArthur as to the non-tenant population of Lochtayside; secondly, we can only be sure of the functions of some of the buildings shown on the plans of the 1769 survey.

The majority of the clusters on Lochtayside might be described as amorphous. Gailey (1962), referring to clachan forms of possibly the late 18th century in Argyllshire, suggests that the only form discernible other than the amorphous clusters was what he described as 'Linear/ Rectangular' forms. In this layout, the houses and out-buildings were built either in a straight line, often joined to each other, sharing a common gable, or laid out in two or more lines approximately at right angles to each other. Analysis of the distribution of these linear/rectangular clusters showed them to be associated with the estates of the more advanced improving landlords, suggesting that these clusters represent a re-arrangement as part of the improvement process, and are therefore more recent than the amorphous groups (Gailey, 1962, 162-163).

Because of the differences already mentioned, between the presentation of detail by Farquharson on the north side and by McArthur on the south side of Loch Tay, it is difficult to say with any certainty whether the clusters are shown accurately or not. Most of Farquharson's settlement groups

seem to be amorphous, but some may have been drawn diagrammatically. More of McArthur's clusters seem to be of a linear/rectangular form, but to use this to suggest that improvement or re-arrangement of settlements had proceeded to a greater extent on south Lochtayside than on the north would be to over-interpret evidence which might be inconsistent in the first place. An interesting example of a linear group is Cluster A on Tomindason (Figure 44, Plate 45); this has the appearance of a miners' row and it is on this land, just a few hundred yards uphill from the cluster, that the second Marquis of Breadalbane worked a copper mine until 1862.

6.3 The Settlement Remains

"One thing I observed of almost all the Towns I saw at a Distance, which was, that they seemed to be very large, and made a handsome Appearance; but when I passed through them, there appeared a Meanness which discovered the condition of the Inhabitants: and all the Out-Skirts, which served to increase the extent of them at a Distance, were nothing but the Ruins of little Houses, and those in pretty great Numbers.

Of this I asked the Reason, and was told, that when one of those Houses was grown old and decayed, they often did not repair it, but, taking out the Timber, they let the walls stand as a fit Enclosure for a Kale-Yard (i.e. a little garden for Coleworts), and that they built anew upon another Spot. By this you may conclude that Stone and Ground-rents in those Towns are not very valuable" (Burt, 1754, I, 28-29).

If Burt's observations were applicable to the farm township settlement clusters of the time, then it might be possible to suggest that the land surveyors later in the century ignored those structures which had obviously been abandoned or had their timbers taken out. It would still be possible for foundations to survive in the field until the present day which were already abandoned when the 18th century surveys were being carried out, serving to confuse any modern attempts at comparing existing remains with 18th century plans. Such is the case on Lochtayside, where there are some good examples of field remains agreeing, or partly agreeing, with 18th century documentary evidence, but just as many sites which provoke the, often unanswerable, question: Before or after the Survey?

On Marrag-Ness, on the north side of Loch Tay, only 2 buildings and a yard survive of the 4-building Cluster A (Figures 10 and 11), but this might be explained by the fact that the 2 surviving buildings are only about 30 feet (9 metres) from the steep west bank of the Allt Tir Artair. On Ardvoile, Farquharson's plan showed the northernmost cluster as having 5 buildings (Figure 12).. Only the 3 western buildings now survive and they have only very low, turf-covered remains showing. These 3 structures (Figure 13) are not recorded on the first edition of the 6" O.S. map, so they must have been ignored as almost obliterated ruins. Their orientation and size do suggest that they represent all that is left of the 1769 layout. Farquharson's remarks

on this farm show that there were other divisions within a township, but obviously omitted by the surveyor: "The marches betwixt the different ploughs are so immensely confused that a description of them on the plan would render it too complex".

Tommachrochar (Figure 14) had 6 tenants and 6 settlement clusters in 1769. Leases among the Breadalbane Estate Papers in the Scottish Record Office show that by 1773 this farm was listed as Wester and Easter Tommachrochar, a continuation and intensification of the 'splitting' process discussed in 6.1 above. A 2-building cluster (A) has survived in a much ruined state (Figure 15) but its size and orientation again suggest the 1769 layout. Blarliargan (Figure 16) had the greatest number of tenants (10) on Lochtayside, and Farquharson adds: "There is three crofts besides", although there is no way of identifying these on his plan or on the ground. High up on Blarliargan, at about 925 feet (282 metres) above O.D., the remains of a cluster (X on Figure 17) exist on the ground. The ruins are in much the same condition as clusters known to have survived from 1769, but they are not shown on Farquharson's plan of the township. They could be pre-1769 and abandoned by the time of the Survey, but they could also be later and part of the extension of settlement associated with late 18th century population growth. They were recorded by the 1862 O.S. surveyors but shown in outline only - unoccupied and unroofed in less than 100 years. Cluster F on Blarliargan

has survived as foundations only, 4 buildings and 2 yards (Figure 19 and Plate 3), marked by a large rowan tree, the presence of which on this and other sites, is helpful in locating very low structural remains on the hillsides. With Cluster D it is again probable that the surviving remains represent the same shapes and locations of some of the buildings on Farquharson's plan (Figure 20). Of the 6 buildings shown in 1769 only 3 now remain and it seems likely that the 2 northern structures were destroyed when the route of the Killin-Kenmore road was moved farther north in the 19th century. The 3 buildings show straight gable-end walls and survive to a height which suggests repair and rebuilding well after 1769. This is supported by Building A which has been extended by 10 to 12 feet. The extension is mortared while the older part of the building is dry-stone built. Buildings B and C are completely dry-stone built and Building B (Plate 4) has a loft window. Cluster A on Blarliargan was the milltown of the officiary of Morenish and the cluster had become the hamlet of 'Milton Morenish' by the time of the first O.S. 6" map (Figures 17 and 21). Building A is completely dry-stone built (Plate 5), but buildings B and C (Plates 6 and 7) are much more strongly built with trimmed stones and mortar. Both B and C appear as single-storey buildings from the west, but they are on the edge of a steep drop to the Morenish Burn (Allt a'Mhoirneas) on the east. Although impossible to photograph because of dense tree growth, both

have a lower floor on the eastern side (see sketch on Figure 21). Building B is undoubtedly the mill shown on Farquharson's plan and as such is probably older than any other buildings in the vicinity. Its eastern gable end has openings for the mill wheel, etc. Building C is similarly built and may have been another mill building or the miller's house. Cluster B (Figure 22 and Plate 8) sits on a small level 'shelf' on sloping land and shows the same number of buildings as on Farquharson's plan, although their orientations do not match. This may be due to Farquharson's cartography rather than to a change of position. The long-house (A) resembles Building A in Cluster D (Figure 20) in that its western end has been extended and mortared, incorporating a gable fireplace. This may have been an adaptation in response to growing population or a move to create a 'living room' with the gable fireplace replacing a hearth out on the floor. Building C is best preserved (Plate 9), lacking only its roof, its size, 23' x 16' (7 m x 4.8 m) suggesting a cotter house.

Remains of various kilns survive on many of the townships. On Rheninchuleigh (Figure 17) a lime kiln has survived in good condition (Plate 10) probably because of its structure having been incorporated into a natural bank above the Morenish Burn. The 1769 surveyors did not show these separately on their plans.

On some townships the level of survival of settlement remains has been very low indeed. This would apply to

Wester Kuiltyrie (Figures 18 and 23) where only a few ruins now mark the former locations of 6 settlement clusters. Figure 24 shows a group which matches quite well the locations of the 3 central buildings in Cluster B. The long-house (A) measures 78' x 19' (23.8 m x 5.8 m) and it may have been a byre-dwelling, although only one entrance is visible. The building is straight gable-ended, as are the others, but its roof was ultimately cruck-supported (Plate 11). All three buildings were dry-stone built.

Cluster A on Easter Kuiltyrie has the remains of 4 out of 5 buildings surviving (Figure 25) and the long-house (Building C) again shows signs of later extension of the western end, with mortared walls, gable-end fireplace and loft windows; traces of a hearth on the floor might indicate the former internal division between the western, living end of the house and the eastern, probably byre end, where traces of a drain survive. The features on the inside of the western gable end can be seen on Plate 12. The township had 7 tenants in 1769 and Farquharson notes: "Here are seven families besides Cotters etc.". Unfortunately, the houses of the "Cotters etc." are not separately distinguishable on the plan.

On some towns, the settlement clusters had their own separate names. Wester Carawhin had 4, Marragnaha, Marragdow, Marragphuil, Tombour, plus an unnamed 2-building cluster (Figure 26). The naming of separate clusters here may have been related to an earlier sub-division of the

township into its component ploughlands or merklands. If the plough is equatable with the merkland (see 5.3 above) then the 4 ploughs listed for Wester Carawhin by Farquharson, who never mentions merks, might be accepted as 4 merklands, as they were in the Rental of 1718 (Appendix 7), each with its own name, e.g. Marragdow - marg dubh - 'the black merkland'. On the first O.S. 6" map of 1862, another cluster, Margcraggan, is shown between Marragnaha and the western boundary of the farm. The condition of the remains (Plates 13 and 14) suggest a post-1769 origin and it is not recorded by Farquharson, but it should be emphasised that many clusters which have size and layout as recorded by Farquharson are in an equally good state of preservation with straight gable-ends and walls still upstanding.

Remains of 4 buildings survive in the vicinity of the 6-building Marragdow cluster of 1769, but their layout is different from that shown by Farquharson (Figure 27). One interesting feature is the 5 dry-stone built projecting 'piers' along the western wall of Building B (Plates 16 and 17). Platforms at the exterior gable-ends or along the sides of houses for stacking-peats are well known, but these are narrow projections which may have been associated with the drying of grain, if Building B is accepted as a barn. Another possible barn is Building D, although there would not be a great deal of space for winnowing between the doorways right up against the gable-end of Building C (Plates 18 and 19).

What looks like a dried-up stream bed runs north from the Marragdow cluster (Plate 15). This is in fact a track, probably a cattle track, and it can be followed right up through the township and beyond the head dyke. It is shown on the first edition of the 6" O.S. map and probably existed in the 18th century. It may be an example of a 'loaning' - a track along which cattle would have been driven past arable land, and probably through the land of adjoining townships, to pasture above the head dyke or to the shielings. The track may have been originally cut below the surrounding ground level to prevent animals wandering into infields. In wet weather it conducts a small stream of water downhill.

Very little of the great 27-building Cluster A on Croftantayan has survived (Figures 27a and 29). The process which produced such an agglomeration may have been similar to that suggested for Cluster A-B-C on Wester Kuiltyrie (Figure 23) with a proliferation of houses and buildings filling up the space between formerly separate clusters. This large cluster is compared with Wester Glentarken in Chapter 11.4.

The western part of the 40-merk lands of Lawers, once described as the 'Three Lawers' (see 4.4 above), consisted of Croftantayan and the 4 farms shown in Figure 28. The highest of these was Cuiltirannich (Figure 30), a one plough, 3-tenant farm in 1769. The plan shows 3 clusters, one strung out (Cluster A) on what is almost an island

between two burns, and there are ruins in each location at present. Of these 3 clusters, one (Cluster B) has 2 buildings remaining of the original 6 (Figure 31). One of these (Building A) was occupied well into the 20th century, but the locations of this and Building B appear to be exactly as in the 1769 plan. The original byre-dwelling (A_1) was about 44 feet long by 19 feet wide (13.5 m x 5.9 m) and this appears to have been extended to about 97 feet (29.5 m), in length, perhaps in two stages (Dunbar, 1957), the final stage being a possible byre (A_3), now ruined. Stages in the deterioration of building A can be seen in Plates 20-24. A series of plates (25-29) shows the system of cruck supports and the inserted fireplace in A_1. Section A_2 was mortared, but only the interior of A_1, so that the walls, in their later stages, could probably have supported a non-cruck roof.

There are two more northerly clusters on Cuiltirannich (X and Y on Figure 29). These were not shown by Farquharson on his plan (Figure 28) and are undoubtedly later than 1769 (Plate 30). Gillies (1938, 204) mentions the granting of crofts on Cuiltrannich to men of the Breadalbane Fencibles returning from duty in 1797, and this is probably the earliest date for the clusters. They lie at 800-850 feet (244-260 m) above O.D. and as late as 1892 it was observed that: "The upper crofts of Cuiltrannich are at present the highest cultivated lands on Loch Tayside" (Christie, 1892, 41).

The farm of Miltown of Lawers (Figure 32) had been laid out and much of the infield enclosed before 1769. Some of the treeplanting along field boundaries had obviously been started before the Military Survey (Figure 5). A dyked area of infield associated with Cluster B (Figure 33) was listed by Farquharson as 'Ghar More' (An garadh mor - "the big garden"). Cluster B is unusual in having the dry-stone built, cruck-roofed buildings of the typical settlement group associated with two much more sophisticated structures, the House of Lawers and Lawers Church (Plates 31-34). The House of Lawers, known locally as 'Tigh ban-tighearna Labhuir', the House of the Lady of Lawers, was built soon after Montrose's army destroyed the earlier House of Lawers in 1645 and it is therefore likely to be much older than the dry-stone ruins attached to its SW gable-end and alongside it (Buildings B, C and D). The Campbells of Lawers, as mentioned in 4.4 above, who occupied the House, sold out to the 1st Earl of Breadalbane in 1693 and moved to Fordie (Fordew) in Strathearn. There is a story that when the Campbells of Lawers severed their connections with the area they took with them some soil to Fordew, which they re-named Lawers. The Church is younger than the House of Lawers, having been built in 1669 (Plates 33 and 34). It served the whole of the north side of Loch Tay and Farquharson notes: "There is likewise here a church where the minister of Kenmore preaches by turns, this being reckoned nearly the middle of the loch". It was in disrepair by the early 19th century and a new church was built on the main road

on the township of Tomb, the present-day 'Lawers'.

Of Cluster A on Lawers (Figure 32), the Miltown itself, nothing survives but the ruins of the mill building, again not surprising since it was much more strongly built than the other buildings (see 6.5 below). Farquharson's description stated here: "There is likewise a miln and a ferry boat for crossing the loch". This was the ferry from Lawers across to Ardtalnage. The 'miln' is a typical 2-storey structure with a corn kiln attached to its eastern end (Plates 35, 36, 37). North of this, 2 or 3 ruined buildings not shown by Farquharson indicate a late 18th or 19th century settlement occupied into the early 20th century (Figure 35 and Plate 38).

On south Lochtayside there seem to be many more examples of ruins and foundations of buildings with the same location and orientation as on the 1769 Survey than there are on the north. This may be due to John McArthur, the surveyor of the south side, having been more accurate or careful than John Farquharson, but it could also be that some sites were not rebuilt so frequently on the south side. McArthur's plans show a great complexity of townships and crofters' and pendiclers' holdings by the lochside at Ardeonaig (Ardeonage) and following the valley of the Ardeonaig Burn inland to where it is joined by the Allt Meall nan Damh and Newton Burn (Figures 37 and 38). The outfields of Mains farm, which was on the eastern bank of the Ardeonaig Burn at the lochside (19 and 19a on Figure 9) were detached from the main farm by more than 1½ miles (2.5 km). McArthur's

plan (Figure 38) showed only one structure and a limekiln on Mains outfields in 1769, but a 3-building cluster had appeared (at X on Figure 38) by the time of the first O.S. 6" map in 1862, including a massive long house measuring 82 feet by 26 feet (25 m x 8 m) (Plate 39). The condition of the ruins is no better than other remains in the vicinity and this small group might represent a colonisation of outlying outfield areas in the late 18th/early 19th century. Adjoining this is the farm of Newtown, bounded by the Newton and Allt Meall nan Damh burns. This farm is not listed in the 1718 Rental (Appendix 7) and its name in 1769 suggests a recent foundation. There were only 2 tenants and 2 small clusters of 3 buildings each. Measurement of the ruined foundations on the ground shows the same general size, location and orientation as on McArthur's plan (Figures 39 and 40, Plates 40-43). The long house of Cluster A on Newton (Plate 42) has only a couple of courses of the foundations surviving, whereas Building B has walls up to gable height, possibly because it has been kept in repair as a young animal shelter. There is no doubt, however, that the remains are in the original positions. Newton and the neighbouring farm of Suckoch (Figure 41 and Plate 44) are the areas on Lochtayside where the surveyor has shown buildings in a sort of '3-dimensional' view, single-storied, with windows and chimneys (Figures 42 and 43). All of group A on Newton is shown in this way, but only the long houses in group B and on Tomour and Suckoch. If these are meant to represent houses that were new or 'better' in

1769, built of stone and perhaps roofed with thatch or slate, then they have fared no better than others in the district in the intervening 200 years. As suggested before, these rather more remote farm clusters may not have expanded or been rebuilt very often before the land was given over to sheep run.

In general, Farquharson had no comments to make on the houses and buildings on the north side, but McArthur made an occasional useful note on his plans, such as the label 'Sheep Houses' against some structures on Wester Tullich (Figure 44). The traces of the buildings remaining have nothing to distinguish them from other ruins, so it is not always easy to deduce function from unexcavated field remains. It might be asked why the only 'Sheep Houses' shown by McArthur were on Wester Tullich (a piece of land named 'Sheep House Croft' was part of Achomir farm, farther west) but this perhaps indicates that the Survey was not as systematic as it could have been.

The township of Tomindason showed one of the few examples of a linear layout in its single Cluster A (Figure 44), not unlike a row of miners' cottages (Plate 45). A copper mine was exploited, just uphill from the cluster, in the first half of the 19th century. On the neighbouring farm of Craig (Figures 46 and 48) little of the 1769 clusters remains. Of Cluster B, only 3 structures remain (Figure 47, Plates 46 and 47) plus a quite well-preserved kiln a short distance away (Plate 48). The main building A (Plate 47), like so many others of its type on Lochtayside, appears to have been extended at its south-western end, probably after

1769, to incorporate a gable-end fireplace. The extension is mortared, whereas the rest of the building is dry-stone built, but despite this, there is a surviving cruck slot in the extended wall (Plate 47). With its extension, fireplace and loft window, Building A is almost a duplicate of Building C in Cluster A on Easter Kuiltyrie (Figure 25 and Plate 12), on the north side. An interesting structure is the isolated Building D on Craig (Figure 46). This is a long house 64 feet long by 12 feet wide at its narrower, southern end (19.5 m x 3.7 m) expanding to 17½ feet (5.3 m) at its northern end, into which is built a corn-drying kiln (Plates 49 and 50). This is an unusual form on Lochtayside. There are remains of kilns, both lime kilns and corn-drying kilns, free-standing or built into knolls or hill-slopes (as on Craig, Figure 47), but few of this type. The building is unusually long for a kiln-barn and unusually narrow for most of its length. Craig therefore has good examples of both types of kiln, as most townships probably had in the 18th century. It was not possible to photograph the interior, bowl area of the kiln as it was completely filled with farm rubbish.

In his excavations at Lix (see Chapter 11.1 below), Fairhurst (1969) was unable to equate the ruins on the ground with the plan of 1755 and he suggested that the surviving pattern was possibly as late as 1790-1800, and perhaps as much as two stages removed from the 1755 plan, stages which saw a fragmentation of the older clusters with partial reorganisation of holdings, and then a re-clustering

of buildings with an increasing number of cotters towards the end of the century. Something like this process was evidently taking place on parts of Lochtayside in 1769; since there is evidence of extra clusters developing shortly afterwards and some clusters were increasing in size. Elsewhere, e.g. Newton, Suckoch and Tomour, there appears to have been desertion without subsequent re-occupation or rebuilding, at a time when the morphology of the settlements was much as it had been on the 1769 plans.

6.4 Lochtayside Shielings

"It is safe to say that, from King David's reign until a hundred years ago, the sheiling system remained unaltered in its essential features throughout the Highlands, although it received its death blow some generations earlier on the Borders and in the hilly districts of other parts of the Lowlands" (Campbell, 1896, 63). It is not possible to show any great age or continuity from the field remains of shieling bothies, which, apart from some archaeological evidence of repeated occupation of a shieling site on Skye (MacSween and Gailey, 1961), are usually accepted as ephemeral structures. The documentary evidence, however, bears out the antiquity of the system. Lochtayside's shieling grounds and grazings are mentioned in early charters of land grants (e.g. 4.4 above). A charter of 1623 (RMS 536) includes: "...dimidietatem 4 mercatarum terrarum de Stronfernan jacentem super lie south side ejusdem in Stronfernan, cum lie girssingis et scheillingis, in baronia de Strowane, vic.

Perthe" and elsewhere in the charter "...40 solidatas terrarum de Thomtayvoir in Fernan, cum lie scheillingis &c".

The regulations for operating the system were carefully set out in the documents of many Highland estates. In the Black Book of Taymouth (1855) an extract from the Court Book dated 21st April, 1623, at Kenmore, stated: "In the samen court, it is statute and ordarit that eviry tennant sall put out their heall ky horse nolt and scheip outwith thair heid dykis fra the first of Maii and remane quhill the aucht day of Junii yeirly, and fra the 8 day of Junii to pas to scheillingis and remane quhill the fyftene day of Julii yeirly, and nane to cum hame befoir ane uther, except a kow that is a lifting, or ane seik man or ane seik woman to hauld ane kow besyd thame to gif milk".

Duncan Campbell (1896) writing in the 1890's of Glenlyon in 'the olden time' describes vividly the meaning of trans-humance:

> "There was a small flitting and a big flitting to the sheilings. Whenever spring grass began to sprout freely on the hill grazings the young and yeld animals, and the horses which were not wanted for farm work, were sent to the sheilings, with boys to herd them, under the direction of provisional or permanent "airidhichean" or caretakers. Men, too, went up to repair and thatch huts, and to see that the store of peats from last year would do until the new peats came into use. The boys pulled heather, which, when packed close, standing right end uppermost, within board frames, or borders of stones on the beaten clay floors, was as good to lie on as a spring mattress, and far more fragrant. This first preparatory flitting made no noise compared with the great flitting -

"Latha dol do'n ruighe" - when the milk cows, and the women with their plenishings, went on the migration. On that occasion universal excitement prevailed. Children and dogs went crazy. Horses caught the infection. Mothers were harassed with many cares, and fathers sympathised. It looked, too, as if the slow bovine intelligence was stirred with memories and anticipations which added to the general turmoil. Milk vessels, churns, cheese presses, pots, pans, meal bags, salt arks, rennet apparatus, blankets, clothing, shoes and stockings - which were little used - spinning wheels, spindles and distaffs, flax and wool, with many other things, had to be packed in the light peat carts, which looked not unlike big baskets on low wheels, that sure-footed horses could almost haul anywhere. When they had settled the women and children in their respective huts and enjoyed a feast of cream and crowdy, the men returned home - peradventure rather gloomily - to the farming work which was their allotted portion.

But while the herding work and other occupations of the lads were important, the women, old and young, were the busy bees of the sheiling hives. Milking, cheese-making, butter-making - or dairy work in all its forms - took the first place in their programme; and after that came the spinning of flax and wool, with other accompaniments, such as the bleaching of last year's webs, the gathering of roots, herbs, backs, and lichens for dyeing, and of other plants for medicinal purposes".

(Campbell, 1896, 68-70)

By the 1790's, the shieling system was disappearing from Lochtayside. William Marshall, in the Agricultural Account of the Central Highlands (1794) observed: "Formerly, it was a practice, common, I believe, to the Central Highlands, to drive cows and other stock to distant SHEELINGS, or hill pastures; where they were kept during six or seven weeks in

the summer months. Within the memory of many men now living, the environs of Loch Tay were deserted in that interval.

The discontinuance of this practice is said to have been effected by the introduction of flax and potatoes; both of which require attendance during the summer months. The destruction of foxes, and the introduction of the black-faced breed of sheep, may serve, still better, to account for its disuse: the interior of the mountains can, now, be pastured with sheep; whereas, formerly, sheelings, chiefly, rendered them valuable".

By the late 18th century, documentary evidence and travellers' descriptions indicate that many Highland grazings were grossly over-stocked. This situation probably developed through misuse of the souming system, by which the numbers of animals allowed on the common grazings were regulated by, or related to, the rental and services due from tenants, their share of the merklands, or the quantity of arable they possessed. A system based on arable holdings might, as suggested in 9.4 below, have been used in Assynt in 1774. The sum (soume, suim, sume) is defined by Dwelly (1977) as "as much ground as will suffice four sheep". This is the simple statement, but in practice the system was much more complex. The coilpeachadh or colpachadh, defined by Dwelly as "equalizing cattle stock", was an equation, varying locally, for converting units of carrying capacity as regards grazing into different kinds and ages of stock. Dwelly gave a list of examples for the Hebrides:

1 horse = 2 cows = 16 sheep,

and for Argyll:

1 horse = 2 cows = 10 sheep.

From the Forfeited Estates Papers in the Scottish Record Office (Report, vol. 94, 1767), a tentative list, varying by region has been prepared (Macpherson, 1969):

Skye, Lochalsh, Kintail, Knoidart -

2 soums = 1 horse or 2 cows or 20 sheep;

Ardnamurchan, Morven, Braes of Atholl, Rannoch, Gigha, Kintyre, Arran -

2 soums = 1 horse or 2 cows or 12 sheep;

Iona, Mull, Nether Lorne -

2 soums = 1 horse or 2 cows or 10 sheep;

Islay, Bute -

2 soums = 1 horse or 2 cows or 8 sheep;

Sheep were obviously the variable, in a period before they became a major element of Highland economy.

Farquharson makes no mention of souming on the north side of Loch Tay, but McArthur listed the 'sumes' allowed to each farm on the south side and the numbers and kinds of stock (cows, horses, harrowers (a type of horse), sheep, goats). McArthur calculated how much stock the moor grazings of each officiary would support and he allocated the shares of this among the farms according to the service due by the tenants, the service being related to each tenant's share of the merklands.

Farquharson's few observations on the north Lochtayside shielings are worth quoting:

"Glens common to Deshoir lie on the north side of the hills betwixt Glenlyon side and Lochtay side. Riol: Common from Finlarig to Fernan. Belongs to the side of Lochtay. This is one of the finest sheallings in this or many other countries.

The following glens properly belong to Glenlyon. The people from Finlarig to Fernan allowed six week shealling in them: Hessan, Glen Car (Cari), Corryrockie, Corrynabuiack".

These are shown on Figure 9, which was adapted from Farquharson's overall map of Deshoir or North Lochtayside, dated 1772 (RHP 569).

The shielings of the northern side of Loch Tay were examined in the 1960's by Professor Ronald Miller (Miller, 1967). He identified 65 shieling grounds and about 450 bothy ruins. Those recorded by Farquharson in 1769 are shown on Figure 9, where each triangular shieling symbol should be taken as indicating a group of bothies.

Miller noted that there is a distance of about 3 miles (5 km) from the lochside to the crest separating Lochtayside from Glenlyon and that the steep slope down from the summit flattens out a little to give something of a bench at around 1,800 to 2,000 feet (550 - 610 m). "This may be structural but may recall the pre-glacial valley and if so is genetically an 'alp'. It certainly carries most of the shielings on this side of the main ridge. Below this bench the slope steepens and then flattens out again between about 900 feet

(275 m) and Loch Tay (350 feet) (107 m). This last zone constitutes the farmland, which almost exactly coincides with it" (Miller, 1967, 206). Some aspects of this relief can be seen in Figures 1 and 2.

In an interesting comparison with Assynt, Miller states (op.cit., 206-207): "We have seen that the Deshoir shieling grounds are common, not particular, as in Assynt. It is not surprising, therefore, - especially in view of their 2000 ft. altitude - that no evidence can be found of farm cultivation or enclosure, nor can an example be found of a shieling bothy which has become a farm dwelling, now or in the past".

The forms of bothy remains vary slightly from ground to ground, with greater or lesser quantities of stone incorporated in the structures. "On most of the shieling grounds, vestiges can be seen of what is presumably an early bothy type, now only a low circular dimple in the turf some 5 ft. in diameter (cf. Plate 53). The majority of the Deshoir bothies, however, are in stone and conform surprisingly closely in size and pattern. They are usually rectangular, some 18 by 6 ft., with the door in the centre of the long side. The walls are well built, taking advantage of the flaggy nature of some of the schists... While the inside wall of the shieling huts is nearly vertical, or was so originally, the outside wall is generally banked up in turf, and such have from the outside the appearance of a green mound. There are, however, numerous cases where the outside banking is absent and the hut is free-standing ...

Small pens or folds are often found, sometimes irregular in shape, taking advantage of natural features, sometimes free-standing and sometimes built on to the bothy, the long dimension of the both being the short dimension of the fold (cf. Plate 55).... The favourite site for the bothies is along the edge of a stream which is cut into drift. Thus good soils and pasture are combined with free drainage and a convenient water supply. The bothy sites on the south-east side of Ben Lawers --- on the Lawers Burn --- on the Cuiltrannich Burn and on the Burn of Edramucky, are all of this character" (Miller, 1967, 208-209). Examples of these on the Morenish Burn are shown on Plate 56.

McArthur mentions the shielings of south Lochtayside in his notes on the different farms and officiaries, but Clochrane and Ardeonage officiaries have no shielings listed, although their allocation of moor is shown. The south side of Lochtay as shown on Figure 9 is based on McArthur's overall map of the south side of Loch Tay, dated 1769 (RHP 717) and from remains on the ground. Under the Officiary of Ardtalnage, McArthur noted: "There is 4½ acres of moor to a sume of cattle into all this officiary. Wester Tullich has two sheelings the one in Choruevine and the other in Glaschorran (on the western boundary of Ardtalnage and near the source of the River Almond on Figure 9). ...Tomindason's sheelings is in the same place that Wester Tullich's sheelings are ... Easter Tullich has two sheelings the one in Glaschorran the other in Glencloy (the Glencloy sheelings are shown in Figure 49)... Craig (has)

one sheeling on the southwest snout of Sheechallanage (Shee of Ardtalnaig) and the other is undermost except one on the south-side of Glencloy burn". Most of the shielings in the Officiary of Ardtalnage are in Glencloy or Gleann a'Chilleine, as far up as the River Almond at Dounans (Dunan), NN 740 341. McArthur makes special comment on some of the farms:

"The farm of Claggan (Figure 49) lys low of a very good soil. Part of the inclosed pasture is very high on the N.E. snout of Sheechallanage. They have the privilege of a road or loanning through Leadour park to drive their cattle to and from their sheeling....Lurg is the steepest farm on the south side of Lochtay for they have to plough all one way. ...Revane sheelings in Glaschorran and immediately above their head dyke ... Lickbuy, Skiags and Shenlarich has their sheelings in Glaschorran and each of them has a sheel immediately above their farm. Keprannich, Ardrannage have their sheelings in Glaschorran, also a sheel immediately above their farms".

In his notes on the Officiary of Taymouth McArthur again says nothing about shielings as such, but observes that there were 5 acres to a sume in this officiary because of the proven quality of the grass. From his map, however, it can be seen that the shielings were in the upper valley of the Acharn Burn (particularly in the vicinity of NN 75 39), in upper Glen Quaich and up the valley of the Taymouth Burn.

In general, the shieling bothies of south Lochtayside were similar to those on the north. The remains show

rectangular stone-built structures, some still remarkably high and other, oval or sub-rectangular outlines covered in turf, possibly much older. The reference to some farms on the south side having 'a sheel' immediately above their farms or head dykes is interesting. There are sheelings in the officiaries of Etramuckie, Crannich and Lawers on the north side which might be said to be 'above the head dyke', but they are much farther away than some of those on the south side. This need for some shielings just above the head dyke might be a factor of the north-facing slopes and the need for an 'intermediate' grazing just outside a restricted farmland area. The map (Figure 48) shows the line of the 1769 head dyke referred to by McArthur, lower than the present. Craig and Kendrochid are not mentioned as having sheelings above the farms, but there are field remains at X, Y and Z which suggest structures not used as permanent dwellings. Two of these, X and Y, are stone built and lie on sloping ground above the old head dyke, beside a track leading from the farm land up to the moor and shielings (Plate 51). The buildings have their entrances in the down-slope gable-end (Plate 52). Structure Z is right against the outside of the present head dyke above Kendrochid (Figure 48) and about 200 m above the 1769 head dyke (NN 703 384). It is much reduced and completely covered with turf, rather like the structure mentioned by Miller (see above) as: "...presumably an early bothy type, now only a low circular dimple in the turf". It is sub-rectangular, measuring

c. 22 feet by 14 feet (6.7 m x 4.3 m), with a break in the wall at the northern end (Figure 49a and Plate 53).

Shenlarich is listed by McArthur as having a 'sheel' immediately above the farm. Two types of bothy are seen among the field remains here: the rectangular stone-built type and the small, oval, circular or sub-rectangular 'dimple' covered in turf. At NN 716 405, between 1400 feet and 1500 feet (427 and 457 m) above sea level there are remains of a large bothy with attached fold, the long dimension of the bothy being the short dimension of the fold (Figure 49a and Plate 55). The wall in places still stands to a height of about 4 feet, with turf along the upper course representing either an upper turf wall or part of the vanished roof. In the vicinity are remains of the smaller oval or circular structures, completely overgrown with turf. One can be seen near the bothy with fold just described (Plate 55). These smaller types may not all have been older forms of bothy. Some are quite small and may have been stores for milk and cheese, turf-covered or turf-built for insulation.

The idea of colonisation of grazing lands or even shielings, as in Assynt, cannot be demonstrated on any large scale for Lochtayside, although the possibility has been suggested for the detached Mains outfields and the patch of outfield above the head dyke at Easter Tullich (5.3 above). A glance at McArthur's Plan 8 (Figure 43a) shows a number of interesting uphill 'bulges' in the head dyke at Margmore,

Margbeg and Margnacrannag, and there were others farther east in Taymouth Officiary. In all cases, the 'bulges' in the dyke surround outfield patches. This might indicate that intakes from the moor and possibly nearby shielings were necessary on the south side in the later 18th century in order to increase the arable.

6.5 Lochtayside Mills

"There is no object requires greater attention than the establishment of proper corn-mills, because here all the labour of the year centers. Yet no branch of police is more neglected than proper rules between millers and farmers.

The evil arose from the abominable servitude of thirlage, and will continue so long as this servitude lasts. The landlord binds his tenants to go to his own mill, and this mill he lets for rent, supposing, by this plan, to increase his rental. There never was a greater deception. The multure due to the mill is classed with public burdens and so lessens the neat rent paid to the master; but were the tenant free, he would give a rise-rent double the amount of the rent drawn by the landlord of the mill. The reason is obvious: being bound to one mill, the multurer grows insolent, gives bad service, and imposes on the tenants. Hence the multitude of law-suits for abstracted multures. Why am I well served by my tailor and shoemaker? - Because he is afraid of losing my custom. The same is the case with millers; and the servitude of thirlage is fast wearing out" (Old Statistical Account, Parish of Kilmadock or Doune, 1797, 524-5).

There are few accounts in 18th century books and documents on the agrarian system that do not mention the hardships and evils of thirling or tying township tenants to particular mills. References exist in quite early documents to multures and thirlage, e.g. the miller on the lands of Cupar Abbey in 1447 received "the ane and twenty corne", i.e. the 21st sheaf or about 5% of the produce, as multure. The mill tenants had to provide their own millstones. The penalties for ignoring thirlage were severe in many cases. In the Court Book of the Barony of Skene was noted for the 27th July, 1633: "The said day, it is statitut and ordeanit in all tym cuming, that quhatsumewir tenant, cotter, girsman, or crofter happinis to sell bear or aitis, or to gang to uther milns with thair corns, in defience of the miller, ilk person contraveinar sall pey to the millar dowbill multer, the millar being abill to gif tham sufficient service; and gif the millar beis not abill to gif tham sufficient service, they to be free of anie multeris or knevschip, quhairupon act was tain".

As well as multures for grinding corn, there were payments in the form of services to the mill, such as cleaning out the lade, getting and bringing millstones to the mill, etc. An earlier note in the Barony of Skene Court Book, for 8th October, 1613, stated:

"The said day, it is decernit that all men that baid away fra the stain is decernit to pay XX.sh. the taxmen that occupies ane pleuche, and everie cottis and croftis men, V.sh. The said day, it is decernit that all cottis and

croftis men and girs men sall pey to the gangaris for the myll stain in tymes cuming, ever ilk ane, xij d.
The said day, it is decernit that the tenentis of the haill grounds sall convein upon Tuisday, to tak order with the mill, under the pain off XX.sh".

In the Baron Court Books of Breadalbane there is noted for 21st July, 1617, that the miller at Acharn, on south Lochtayside, reported several men to the Court who had refused to take part in the 'hameganging' of the millstone.

It was also a crime, in some areas and at some periods, to possess a hand-mill or quern. Again, the Breadalbane Court Book announced, for April, 1627: "The laird perseivis the haill tenentis of Lesmoir for halding of quernis and not bringing of thair cornis to the mylne to be ground thairat. Duncane McEan V 'a Channich convict for quernis; Donald McEntyre in Auchnacrosk convict for quernis".
On 25th May, 1641, the same Court Book lists:
"Item it is statute and ordained that quarnes be brokine, and ilk tennant and cottar to go with thair grindable cornes to the milnes, quhairto they ar thirled, under the paine of X lib toties quoties".
There is a note in the papers of the Monymusk Estate, Aberdeenshire, 1735-1750, that the tenants, as well as multures, had to pay a 'lick of good will' to the miller - "Millers were generally the best hated men in the parish" (Hamilton, 1946).

On Lochtayside in 1769 there was a corn mill in each officiary. On the northern side these were as follows:

Officiary	Mill
Terartar	Miltown of Finlarig
Morenish	Blarliargan
Carawhin	Croftvellich
Crannich	Balnahanaid
Lawers	Miltown of Lawers
Fernan	Croftinalen

These were 6 mills for 8 officiaries. The officiaries of Etramuckie and Kuiltyrie were too small to have their own mills and their tenants were probably thirled to either Morenish or Carawhin, to the west and east. The Lochtayside mills are shown by the letter 'M' on Figure 9. On south Lochtayside the mills were also evenly located:

Officiary	Mill
Clochran	Middle Clochrane
Ardeonage	Finglen
Ardtalnage	Miltown of Ardtalnage
Taymouth	Wester Ballinlaggins

The south Lochtayside corn mills were almost exactly central to their respective officiaries.

The type of buildings surviving can be seen in Figure 21 and Plates 6, 35-37, at Blarliargan and Miltown of Lawers. As previously mentioned, most remains of mill buildings are probably much older than the dry-stone ruins of the tenants' houses, since mills in general were built more strongly with mortar and usually with trimmed masonry. Apart from the

corn mills, the Survey shows a 'lint miln' at Cuiltirannich in Lawers and a 'Walk Mill' (waulk mill) at Remony in the Taymouth Officiary. These were discussed by Gillies (1938, 187-188): "In 1770 the amount of flax dressed at Lawers (Cuiltirannich) lint mill was 460 stones ... These scutching-mills (one also at Killin) were the first of their kind to be erected in the Highlands and were constructed by Ewen Cameron, a native of Breadalbane. This remarkable man was born in 1705 and died at Lawers in 1817 at the extraordinary age of 112 years. It was he who taught the people of Breadalbane to use spinning-wheels and jack-reels. ...Before 1769 a waulking or fulling mill was started at Remony near Kenmore by William Murray. Encouraged by Sir John Sinclair of Ulbster, the great pioneer of Scottish industries, the fourth Earl of Breadalbane extended the Remony mill and introduced plant for carding and spinning wool, and for dressing and dyeing cloth".

CHAPTER SEVEN

ASSYNT: LANDSCAPE AND EARLY HISTORY

7.1 Physical Landscape

Assynt is the southernmost parish on the west coast of Sutherland. In area, it is over 110,000 acres (87,230 Scots acres or 44,534 hectares), measuring 22 miles (35 km) from north to south, and about 26 miles (42 km) from west to east (Map, Fig. 50, Cross-section, Fig. 51). In terms of geology and landforms, there are three main regions: the Stoer Peninsula, the Central Foreland area, including the west and north coasts, and the Eastern Mountains (Lennie, 1911; Hobson, 1949; Macgregor & Phemister, 1958; Macauley Institute, 1982).

The Stoer Peninsula, or Rhu Stoer, is an area of lower undulating land, with steep coastal cliffs. The parent materials for the soils are drifts derived from Torridonian sandstones and grits, on which are developed peaty gleys, peat and some peaty podzols. The main vegetation is blanket bog and heather moor. The Central Foreland region, which forms the major part of the parish, consists of a broken and hummocky upland area of Lewisian gneisses, with rugged, dissected lowlands and isolated mountains capped with Torridonian sediments, such as Quinag, 2653 ft (808 m) high, Canisp, 2779 ft (847 m) high and Suilven, 2399 ft (731 m) high. There is much bare rock and many lochs and lochans. On the drifts derived from Lewisian gneiss have developed peat, peaty gleys, peaty rankers and some peaty podzols.

The vegetation is again blanket bog and heather moor. The Eastern Mountain region is separated from the Central Foreland by the valley of the Loanan River and Loch Assynt. It is an area of complex and detailed geology, dominated by the thrust planes and intrusions of the Moine Thrust and by outcrops of Cambrian limestone. The highest peak is Ben More Assynt, 3273 ft (998 m), just east of the parish boundary. Parent materials are drifts derived from Cambrian and Ordovician limestones on which are developed brown rendzinas, brown forest soils, peaty podzols and peats. Natural vegetation includes bent-fescue grassland, heather moor, blanket bog and some hazel woodland.

The effects of glaciation are evident throughout the parish in the lochs, bare rock surfaces, areas of boulder clay and drifts. The coastline is long and indented, causing one 18th century writer to comment: "The extent of this whole country from the arm of the sea called Edrachulis on the north to Glenelg on the south in a straight line is about 60 miles, but if it was to be coasted it would measure above three times that length by reason of the many lochs and creeks that run up into the country" (Lang, 1898). John Home in his Survey of 1774 notes the many excellent harbours at Lochinver, Nedd and elsewhere around the coast of the parish. The main rivers are the Loanan, flowing north from Loch Awe into the south-east end of Loch Assynt; the Inver, issuing from the north-west end of Loch Assynt and flowing into the sea at Lochinver; the Kirkaig, issuing from the western end of Fionn Loch and flowing into the sea

at Inverkirkaig. The largest inland body of water is Loch Assynt, followed by Cam Loch and Loch Urigill, but there are many smaller lochs and lochans.

The climate is typical of a maritime west coast, varying in the interior. Temperature range is low, on average annually about 15 degrees Fahrenheit (8.3 degrees Centigrade), and rainfall heavy (46 inches annually at Stoer Head and Lennie (1911) records 75 inches annual rainfall at the farm of Achmore, on the north shore of Loch Assynt), with an autumn and winter maximum. "Prolonged periods of frost are rare, as is snow, but the strong winds, the high humidity and the large number of rainy days in the year, as well as the lack of sunshine and the extreme variability of the climate, are a very serious handicap to all agricultural pursuits" (Hobson, 1949, 28).

The main characteristic of the Assynt landscape is fragmentation, due to glaciation and the nature of the local geology. This can be further seen in the scarcity and discontinuous nature of level land and soils suitable for agriculture. The difficult environment had been noted for centuries. In Blaeu's Atlas (1654) is stated: "Il y a fort peu d'habitants en Assynt à cause de la pauvreté du pays". In Walter Macfarlane's Geographical Collections (Mitchell, 1909) is noted "... here all is rugged and uncultivated, nor, with the exception of herds of deer, cattle and horses, is there anything worth mention, since the poor district hardly suffices for its few farmers". In a manuscript describing the Highlands in 1750 (Lang, 1898), Assynt

is described as "... prodigiously rough and mountainous and breeds numerous herds of cattle of all sorts, but does not yield corn enough for the support of the inhabitants". John Knox, in his travels through this region in 1786, noted on the farms along the shores north of Lochinver that the potato was much cultivated, that fishing was as important as farming and that much land was tilled by the spade - some arable patches being barely the size of a carpet (Knox, 1787, 246). William Mackenzie, minister of the parish, writing in the Statistical Account of 1794, stated: "Along the whole shore, the soil is of various kinds, stony, gravelly, sandy, mossy, and these for the most part interspersed with rocks and stones, some of greater, others of lesser magnitude; for which cause almost all the labouring is performed by the crooked and straight delving spades, implements of husbandry peculiar to this and other parishes to the N. to the W. and S.W. of Assint. The plough affords considerable aid at the farms of Inver-kirk-ag, Filin-wintering, Inver, at Oldney, and Little Assint-wintering. The plough might do so, in more or less degree, throughout the several other farms of these three davochs along shore. But the inhabitants, being numerous there, think it easier, and attended with less expence, to delve their several divisions of land, than be at the trouble of clearing the ground, or of using horses and ploughs". Mackenzie also mentions that where the plough is used, the 'crooked delving spade' or cas chrom has to go before the plough to expose rocks. He continues: "Some little tracts of moor and barren

ground are yearly everywhere brought into cultivation by potatoe-planting; but the whole arable ground, ploughed and delved throughout the whole parish, does not probably bear the proportion of one acre to an hundred, of what is hill pasture, moor and moss. The old Scotch plough is the only one used here; four hardy native horses are yoked to it. The other implements of husbandry are harrows, the crooked and straight delving spades, some mattocks, cabbies, crook-saddles, and creels. It is with these two last mentioned that the manure is carried on horseback to the field ...".

Apart from the bog and moor vegetation already mentioned, there were some woodlands. Home lists 2902 acres of woods out of a total of over 90,000 Scots acres (Appendix 12). Some townships had no woods listed at all, in particular the farms around the Stoer Peninsula which were obviously too open and wind-swept, except for 44 acres in a sheltered area of Auchnagarnan. The value of the trees for shelter is constantly repeated by the surveyor - "woods which afford excellent shelter"; on Reintraid: "...woods yield excellent grass and shelter"; on Ardvare: "The Sheeling places are all situated about the Edges of the extensive Natural Woods which abound with Grass". The trees mainly referred to are birch and hazel, but here and there others are mentioned, e.g. at Knockneach: "...fine full grown trees consisting of Oak, Ash, Birch &c", and at Battachrianan: "Natural Woods of Oak and Birch". But wood was obviously scarce; when the minister of Assynt rebuilt his manse at Kirktown in 1771, the heavy timber had to be brought from Ross; Adam

(1960, xxi) notes that fir-wood was brought from Glen Einig in Kincardine parish and that 16 joists were hauled by 2 horses each and 32 other horses each hauled a single couple-beam. Smaller wood was found in a moss within a mile of the manse. Despite the scarcity, there are references to suggest that at one time Assynt was much more densely forested, with mention of its fir forests being burned by Norsemen and that it was once a 'forest of the Thanes of Sutherland' (see 7.2 below). Some of John Home's remarks have a bearing on this. For example, at Drumsurdland Home notes no woods in his list but comments: "The Corn Lands are full of Baulks with Roots of Trees so that one would be apt to imagine it had been altogether Wood some time ago". At Philin, 5 acres of woods were listed, of which 2 acres were: "Remains of Wood, mostly Oak roots, above the Infields". At Inver, the corn lands were: "...interjected with Rocks and Baulks, the last is full of Oak Roots, which appears to have been its original production". Baddidarroch had no woods listed but the name - bhadaidh daraich - is translated by Mackay (1889) as 'oak thickets' (see Appendix 25). Production of lime could have been one cause of tree destruction. At Ledbeg, Home remarked: "Wood a great part of which has lately been cut, on the North side of the hill next Loch Ha (Awe)", and among his observations on the same farm: "Great part of the arable Lands have lately been limed, by quarrying and burning the Stones found upon the Grounds within the Dykes; see the quarry and Kiln above the Linn North of the House". Human agencies, the fragmented terrain

and exposed situation of much of Assynt have left only a few patches of woodland.

Transport and communications in western Sutherland have, until relatively recent times, been extremely difficult. "There were no made roads in Sutherland to the beginning of last century, and in many parts of the interior guides were necessary as no vestige of a track was visible. Drove roads, of course, existed from the earliest times, as cattle rearing was the main industry of this, as of all the Highland counties. In addition bridle tracks led along the east coast and up the main straths; but it was considered sufficient for the construction of such a road to remove the boulders and fling some gravel or stones on the more boggy parts. Wheeled traffic under such circumstances was, it is needless to say, impossible" (Lennie, 1911, 128). The main routes across Assynt in the later 18th century were tracks, which were often almost obliterated in winter and the wettest seasons. Consequently, most loads had to be carried by horses or humans or dragged. Any important communications going south had first to be carried on horse or foot to eastern Sutherland. As late as 1794, William Mackenzie, the minister, noted: "...neither cart nor wagon are yet used here".

7.2. Early Landowners in Assynt

In the 12th and 13th centuries, Sutherland included only Dornoch, Creich, Golspie, Rogart, Clyne and Loth, with part of Kildonan and Lairg. It did not include Assynt, Edderachillis, Durness, Strathnaver or Farr. These were

added in the erection of the new sheriffdom and county of Sutherland in 1631. In medieval records, Assynt was referred to as a 'forest' of the Thanes of Sutherland. There is a story that the region was given in vassalage in the 12th century to one MacKrycul, MacNicol or Nicolson by the Thane of Sutherland as a reward for retrieving cattle from Norsemen who had raided the coast and burned the fir forests. Norse influence can be traced in some of the place-names, e.g. the Traligill River or Unapool (Una's steading) (Appendix 25). The last of the MacNicol line, a female, married into the family of the MacLeods of Lewis in the 14th century and, with some interruptions, Assynt was a MacLeod possession until near the end of the 17th century. The Register of the Great Seal records the grant to Torquil MacLeod, in 1343 or 1346, in the reign of David II, of the 4 penny or 4 davoch lands of Assynt, with the 'fortalice' in the island thereof, MacLeod to do the service of a 20-oared ship manned and armed at the King's disposal:

> "Carta Regis Davidis 2^{di}...ejusdem Regis, Torkile Maclode, quatuor davatarum terre de Asscynkte cum forcelata insule ejusdem; faciendo servitium navis viginti remorum quum dictus Torkile vel heredes sui super hoc fuerint premuniti; carta est sine data"
>
> (Robertson, 1798)

The Great Seal records that Torquil Connonach MacLeod secured the baronies of Assynt and Coigach by royal charter in February, 1572 (RMS 2019), but only 20 years later, in January, 1592 (RMS 2024) another Torquil MacLeod (or perhaps the same one) resigned the lands in favour of Colin Mackenzie

of Kintail. The charter is valuable for its record of the farm names of Assynt:

> "Rex concessit et, pro bono servitio, de novo dedit Colino M'Kenzie de Kintell, et heredibus masc. ejus de corpore legit. procreatis, quibus deficientibus, legit. et propinquioribus heredibus (masc.) dicti Col. quibuscunque cognominis de M'Kenzie et arma domus de Kintaill gerentibus. - terras et baroniam de Assint, viz.

Alphin (Elphin)	Ardvar (Ardvare)
Leardmoir (Ledmore)	Glenlerik (Glenlirag)
Leadbeg (Ledbeg)	Neyther (Nedd ?)
Strowchrobe (Stronecruby)	Taymouth (Tumore ?)
Glasmoir	Brumepak
Stoir (Stoer)	Uldenyne (Oldernay)
Clachoule (Clachtoll)	Glasmassie
Inchevandie (Inchnadaff)	Auchincarne (Auchnagarnan)
Auchmoir (Auchamore)	Auchinamulvich (Auchmelvich)
Ullebell (Unapool)	Terbrek (Torbreck)
Ravintrait (Rientraid)	Invererlik (Inver Chirkag)

> cum aqua et piscaria salmonum earundem, Lochbannoch, Kirktoun de Assint, insulam et fortalicium nuncupat. the Yle of Assint cum maneriebus, locis, fortaliciis, molendinis silvis, piscationibus tam in aquis salsis quam dulcibus, tenentibus &c., advocatione ecclesiarum, capellaniarum et beneficiorum earundem, vic. Inverness:- quas Torquillus M'Leude de Lewis, Assint et Cogarch in favorem dicti Col. resignavit; - Insuper rex voluit quod unica sasina apud villam et terras de Leardmoir capienda pro omnibus staret:- Reddend. jura et servitia cum warda &c. debit. et consuet".

The names in brackets after the farm-names are the forms used by John Home in his Survey of 1774.

In the list of Sutherland Hearths in 1693, for the Hearth Tax, some of the Assynt farms are listed: Laidmore (Ledmore), Leadbeg (Ledbeg), Knockan (Knockon), Knockneich (Knockneach), Druimsuadorland (Drumsurdland), Donglash (Duchlash), Tubeg, Invrchircac (Inver Chirkag), Philind (Philin), Inbor (Inver), Achmalbich (Auchamelvich), Clachcoill (Clachtoll), Store (Stoer), Classmore (Clashmore), Achmcornic (Auchnagarnan ?), Classnessie (mill) (Clashnessie), Drumbaie (mill) (Drumbeg), Glenleroch (Glenlirag), Nuliboull (Unapool), Ardbreck (Ardvare, Ardvreck Castle or Torbreck ?), Inchdanf (Inchnadaff), Stroncrubie (Stroncruby), Leind (Layn). Once again, the 1774 version is in brackets.

The last MacLeod laird lost the lands in 1691-92 and by 1695 Assynt was in the possession of John Mackenzie of the Seaforth family. It remained in Mackenzie ownership until 1736 when the last Mackenzie laird, in the face of mounting debt, attempted to sell the lands to two different purchasers, William, 17th Earl of Sutherland, and William Mackenzie of Seaforth. In the ensuing troubles, the house of Calda (Plate 57), on the farm of Ederahalda was burned. An unknown writer on the state of the Highlands in 1750 commented:

"...the country of Assint, about 80 years ago the property of a family of the McLeods, now the property of a near cousin of Seaforth's and of his name; but it is at present sequestered

for debt, and the proprietor is scarce one degree above an idiot" (Lang, 1898). After years of sequestration, Assynt was purchased in 1757 by Katherine, Lady Strathnaver, for her grandson, William, 18th Earl of Sutherland. William died in 1766 and the estate passed to his year-old daughter Elizabeth, Countess of Sutherland.

7.3 Early Maps of Assynt

On maps of Scotland by Ortelius in 1573 and Mercator in 1595, the region is shown as 'Assyn Shire', but, as with Lochtayside, the earliest real attempts at mapping Assynt would seem to be the work of Timothy Pont, towards the end of the 16th or the beginning of the 17th century. A crude map of 'Assyin' by M.T.P. (Master Timothy Pont?) shows a rather twisted view of the eastern half of Assynt (Fig. 52). What would seem logically to be the west coast on the left-hand side of the map proves, on closer examination, to have place names of the northern coast of Assynt, although Loch Assynt has no river issuing from its western end that flows to the north coast. To a certain extent, the names can be correlated with known place names:

Pont's Map	Home's Survey or O.S. Map
Eunlaboll	Unapool
Loch Imberboll	Loch Unapool ?
Loch wairr	Loch Ardbhair
Ard-wairr	Ardvare, Ardbhair
Assynbeg	Assynt beag, Little Assynt

Alt Calder beg	Allt a' Chalda beag
Alt Calder mor	Allt a' Chalda Mor
Chaille mor	Druim na Coille Moire
Kirktoun	Kirktown of Assynt
Inchindaw	Inchnadamph
Stronchrowby	Stroncruby, Stronechrubie
Avon Tralligir	River Traligill
L. Borrow-lann	Loch Borralan
Aldwywydling	Altnacealgach ?
Laidbeg	Ledbeg
Laidmor	Ledmore
Straockell	Strath Oykel

There is an interesting comment at the bottom of the map: "On Laidmore and beg are studds of horses". The name 'Avon Tralligir' has been wrongly given to the River Loanan, and Ledbeg and Ledmore are shown on the west and south of Loch Borralan, when in fact they lie well to the north-west of that loch. 'Ye mill' is shown in the vicinity of Ardvreck Castle; this must be a forerunner of the mill on that site on the farm of Ederahalda, built in 1759 and noted in the 1774 Survey. There is little information on settlement morphology, but it is useful to know of the continued existence of Ardvare, Unapool, Little Assynt, Kirktown, Stroncruby, Ledbeg and Ledmore, all listed in the previously mentioned charter of 1592.

The next map (Figure 53) is part of Extima Scotiae (septentrionalis ora, ubi provinciae sunt Rossia, Sutherlandia, Cathenesia, Strath-Naveriae), a map in John Blaeu's Atlas Novus,

published in Amsterdam in 1654. It appears to be based on the Pont map already mentioned and it would again seem that Pont's map was a rough draft for a later Blaeu map, as in the case of the early map of Lochtayside in Chapter 4 (Figure 3). This Extima Scotiae map has been later adapted by Gordon of Straloch ("R. Gordonus à Strath-loch collegit et descripsit") as was the case with many Pont maps (Cash, 1901; Moir, 1973; Moir & Skelton, 1968). The twisting of the north coast through about 90 degrees can again be seen here. As well as the sites already noted from Pont's rough map, this one shows several more. Where Kirktoun appeared at the south-eastern end of Loch Assynt, a site named 'Balna beg' is shown on the later map and the River Loanan has again been wrongly labelled 'Avon Tralligir'. On the coast, which was barely shown on Pont's earlier map, appears Ynnaboll (Unapool), Achanagarnan (Auchnagarnan), Clawhoill (Clachtoll), Dachamailler (Achmelvich), Torbreck and Inner Chircaig (Inverkirkaig). It is surprising that some of the farms listed in RMS 2024 for 1592 are missing here, but this is no real indication that they had disappeared. Most of the farm names are shown against a small circle, but 'Balna beg' has a cross on the circle (⊹) as had 'Kirktoun' on the earlier Pont map. The change in name may therefore be a later error on the part of Gordon.

The map of the Military Survey, 1747-55, for Assynt (Figure 55) shows quite a different pattern from the Lochtayside sheet. The settlements are as usual shown by

clusters of small oblongs, but the pattern of arable land is one of discontinuous patches, unlike the more regular strip of arable along the north and south sides of Loch Tay. This pattern emphasises the fragmentation of the region and in places Roy's hill shading seemed almost to obscure the scattered islands of cultivation.

The table of place names (Appendix 25), shows gaps in the list from the Military Survey Map compared with John Home's Survey of 1774. Some of these gaps may be filled by a number of clusters on the Military Survey which are not named, e.g. in the Stoer Peninsula region. There are also 'extra' names, e.g. 'Albeal' where Unapool should be situated; Unapool itself is located 2-3 miles farther south. 'Inknaduf' is shown as a settlement on the farm of Achmore, but on the western side of the Skiag Burn at the foot of Quinag. No settlement was ever recorded here, nor are there any field remains. The possibility of a site existing at the time of the Roy survey but which had disappeared by 1774 must be considered, but it is unlikely in a period of population growth and proliferation of settlements. The name 'Inknaduf' is almost the same as Inchadamph, which is not named at all, although its cluster is shown across the Traligill from the 'Kirk of Strathcrombie' (no doubt a version of the Kirktown of Assynt). The farm of Stroncruby of which 'Strathcrombie' is probably a corruption, is labelled 'Inchdanf', adding to the confusion. An extra site, Rian ... (possibly 'Riendorich' but difficult to read on the original) is shown just east of Layn. John Home

mentions a Riancrevich as part of Ledmore and the parish minister, in the Statistical Account of 1794, notes a farm, Ry-an-cro-vich, in the vicinity.

On the west coast, Achnacarnan (Plate 72) settlement and arable land is shown but not named. Bellachlattach is labelled 'Camis' (Gaelic for 'bay') and Clachtoll has become 'Ballclachinhole', literally 'the town of the holed stone' (Baile a' chlach thuill). As in many cases of Lowland or English surveyors working in Highland regions, the name is heard as pronounced locally and the spelling is a matter of phonetics or conjecture. The coastal farms as far south as Inverkirkaig, on the parish boundary, are shown reasonably accurately but a number of inland sites are not recorded. Aultnachie, Batachrianan, Drumsurdland, Duchlash and Polgarvier, Torbreck, Knockneach, Loch Beanoch, Ailfin, Knockan and Tubeg are missing, and since no roads are shown anywhere, the difficulties of access to the interior may be a partial explanation for the omission of some farms.

During the minority of the Countess of Sutherland, her tutors or guardians decided to have certain parts of the estate surveyed, and to this end John Kirk from Edinburgh was engaged in 1771 (Adam, 1960). He died in 1773 before the Assynt survey could be started and John Home was appointed as his successor.

CHAPTER EIGHT

ASSYNT IN 1774: LANDS AND HOLDINGS

8.1 Population

The number of inhabitants in Assynt in 1774-75 is easier to calculate than that for Lochtayside five years earlier. Assynt was a single parish whereas Lochtayside was spread over at least three parishes. Apart from this, the Sutherland Estate Papers contain a 'List of the Inhabitants of the Parish of Assint, November, 1774' and a 'Particular Rental of the Estate of Assint, as set on 15th May, 1775', published by Adam (1960). These, despite some confusion with names and inaccuracies in calculation, give a good idea of population and serve, as Adam (1960, xli) notes, to amend Webster's 1755 figures which, for some districts, seem too high. William Mackenzie, the parish minister, writing in the Old Statistical Account in 1794 states: "The narrator is perfectly persuaded in his own mind, that the natives are a third more numerous than when he came in 1766; ... The present number of inhabitants, including young and old folks, is thought to be 3000". This is obviously an inflated guess. The List of Inhabitants for 1774 gives a total of 1718 and the first Census of 1801 records 2395, an increase of 40% (Appendix 15). This makes Mackenzie's figure of 3000 for 1794 much less likely. Appendix 15 shows the population figures to 1861, the year of maximum population.

Of the 1718 inhabitants in 1774, 1175 or 68% occupied the coastal farms (Appendix 14), while 543 inhabitants or 32% of the total occupied the inland farms. The most

populous township was Clashnessie (no. 4 on Figure 56 and in Appendix 12), with 103 inhabitants, followed by Ardvar and Glenlirag, each with 90. Altogether 11 of the 22 coastal farms had populations of over 50, whereas only 2 of 20 inland farms had more than 50 inhabitants; these were Ledmore, with 76, and Stroncruby, with 52.

8.2 Land Division

The officiary sub-division, seen on Lochtayside, did not occur in Assynt. There may have been earlier divisions of the parish, however, based perhaps on fiscal assessment. The reference to a 4-davoch land, granted to Torquil MacLeod in the reign of David II (Chapter 7.2 above), is revived, although perhaps only traditionally, as late as 1794, with William Mackenzie's statement in the Old Statistical Account: "The ancient division of the parish, to this day retained and known by all here, was into davochs of land, which are four: 1st, The davoch of Ard-Assint, including the whole tract and farms thereon, from Skiak river all along the march of Ledmore, at Auld-an-nakal-gach (Altnacealgach), &c. to Knockan. 2d davoch, Edra-isk, extends from Inverkirkaig river to that of Inver.

3d davoch, Row-store (Rhu Stoer), lies extended along the shore from Inver river to Garve-Auld (Garbh Allt) of Clashnessie. 4th davoch, Slish-a-chilish, situated betwixt said Garve-Auld of Clashnessie, along the coast of Kilis, to the march of Unapool (as formerly represented) with Glencul of Edra-chilish parish.

The subdivision of these four davochs is into oxgates of land, every davoch consisting of eight such, making in all 32 oxgates" (Mackenzie, 1794, 184-185). A map based on this description is given at Figure 54. Among the Forfeited Estates Papers for the Barony of Coigach, immediately to the south of Assynt, a rental for 1748 refers to: "... the half-davoch lands of Balloan, the quarterlands of Achlunachan... the oxgates ... a half oxgate".

The davoch seems to have been an old Celtic, possibly Pictish, system of land measurement. There are various suggested derivations. Dabhaich, a large tub or vat, where the definition might be the quantity of land for which a vat of grain was the rental, or the area of land which could be sown with a vat of grain. In the Coigach rental previously mentioned there are further references to: "... four pecks of the six peckland of Lossitmore in Ullapool; the half-peck of Rimore in Ullapool; the half-peck of Pollichoir".

An alternative interpretation came from damh (ox) and ach (field), or damh (ox) and ochd (eight), where the definition applied to areas of land that could be worked by a plough-team in a year. In this latter meaning, a davoch was equated with 4 ploughs or ploughgates, each of 8 oxgates or oxgangs, totalling 416 acres. Captain Thomas (1886) noted that, in the north, the davoch was often regarded as one plough (8 oxgates or 104 acres) rather than four. This seems to have been the case in Assynt, where the minister equates 4 davochs with 32 oxgates. In terms of arable or infield only, 4 davochs by these reckonings would not

accommodate the 2202 acres of infield listed for Assynt as a whole. Despite the minister's assertion that the division was "... to this day retained and known by all here", there is no mention whatsoever of this division in the 1774 Survey, apart from a brief reference to the "oxgates of Culack, Camore and Glendu" on the farm of Kirktown. In any case, it is known from Home's notes on the various farms (particularly in his description of Oldernay in Appendix 24) that much of Assynt was worked with the cas chrom. Mackenzie reported: "... almost all the labouring is performed by the crooked and straight delving spades ... The plough might do so, in more or less degree, throughout the several other farms of these three davochs along shore ... besides, it is found by experience, that there is much greater increase of corn, from the same quantity of seed sown in delvings, than from the like quantity sown in ploughed ground; bear sown in straight spade delving is generally found to yield sixteen in return" (Mackenzie, 1794, 185-186). From this evidence it would seem unlikely that in Assynt the davoch had any real meaning in terms of ploughing capacity, and its use as a unit of assessment for rental, etc., is not clear.

Grant (1926) suggested that by the late 18th century, the davoch as a unit had become interchangeable with the barony. It is not possible here to cover all aspects of the use and interpretation of the davoch (Grant, 1930; McKerral, 1944, 1948, 1951; Barrow, 1962, 1973), but in Assynt it may simply have been the survival of an administrative unit from earlier times where the name only had been retained.

8.3 Rents and Size of Holdings

The rental value of the Assynt lands, as on Lochtayside, was given in merks (Table, Appendix 13). The highest valued farms are Achmore and Ledbeg, at 200 merks each, Ledmore at 180 merks, Stroncruby and Clachtoll at 160 merks each, and Oldernay and Kirktown at 150 merks each. Only two of these, Oldernay and Clachtoll, are coastal farms. The lowest valued units are Battachrianan at 20 merks, Brackloch at 30 merks, and Bellachlattach, Torbreck, Baddidarroch, Aultnachie, and Cromald at 40 merks each. A glance at the list of farms for South Lochtayside and Assynt (Appendices 4 and 13) shows a great difference between the merk valuation for the two regions. The lands with the highest valuation on South Lochtayside are Finglen, Callelochane and Portbane, all 4-merk farms. In Assynt, the highest valuations are for Achmore and Ledbeg, both 200-merk farms. This seems an incredible difference in value, considering the less fragmented nature of the land on Lochtayside and the possibly better quality of the infield. The Rental of Assynt for 1775, published by Adam (1960, 64-65), shows a "conversion per 5 merks" to £.s.d. sterling, which appears to be an attempt to bring the valuation to a more realistic level. From the Lochtayside figures, Dodgshon (1973) suggested that the merk was equivalent to about 7-9 acres of infield. A straight average of the total figures for South Lochtayside (Appendix 1) gives a figure of 10.7 acres of arable per merkland. In a plan of East Lix, a township in Glendochart, prepared by William Cockburn in 1755 for the Commissioners

for the Forfeited Estates (Fairhurst, 1969), the farm is valued at 4 merks and has 50.7 acres of arable, giving 12.68 acres per merkland. The Assynt figures produce a quite different result. 2202.361 acres of infield and 3830 merks give 0.575 acres of infield per merk. Even if this is converted 'per 5 merks' as in the money rental (Appendix 13), the figure rises to only 2.875 acres of infield to the merk, a figure which diminishes again in face of John Home's remarks on the land classified as 'Infield' (Appendix 24). There is no consistency here, and it seems pointless to equate, or to attempt to equate, merkland valuations with areas of land when both the economic and social conditions which originally produced such units had changed so drastically by the later 18th century.

Leaving aside the single-tenant and tacksmen farms (16 out of 42), the greatest number of tenants per farm for Assynt is 16 on Clachtoll, 15 on Clashnessie, Unapool and Ledmore, and 14 on Clashmore and Glenlirag. These numbers are much greater than the tenant totals for Lochtayside, despite the fact that the landscape there was obviously much better suited for agriculture.

Apart from the single-tenant and tacksmen farms, average holdings for Assynt may be listed as follows:

26 joint-tenancy farms
52.35 acres infield per farm
38.80 acres sheelings per farm
1972.85 acres total per farm

On these same 26 joint-tenancy farms there were 247 tenants.

A straight average would give the following holdings:

5.51 acres infield per tenant
4.08 acres sheelings per tenant
207.66 acres total per tenant

However; unlike Lochtayside, where we have to assume equal shares of land among tenants, apart from those farms on the north side (3,6,7,12 and 44 in Appendix 1) where the ploughlands or horsegangs were unequally divided, a list of the tenants' shares of the rental in merks (Appendix 12) is given in the Assynt Rental for 1775. Using Stoer as an example, with one tenant paying one-fifth of the rent, five paying one-tenth, two paying three-fortieths and three paying one-twentieth each, Adam (1960, 1) suggests: "it would be unwise to assume that the arable land was shared in precisely these proportions". But why not? If a tenant paid one-fifth of the rent it would seem likely that he or she would be entitled to a greater share of the land than the tenant who paid only one-twentieth. This seems normal in a system where tiny pieces of land were subdivided so that all qualities could be fairly shared. If the division of the rental can be equated with shares of the farm, it gives a somewhat different picture when the Stoer lands are subdivided on this basis:

1/5 = 15.85 acres infield, 7.85 acres sheelings
1/10 = 7.92 acres infield, 3.92 acres sheelings
3/40 = 5.94 acres infield, 2.94 acres sheelings
1/20 = 3.96 acres infield, 1.96 acres sheelings

On Culack (15), there were three tenants with one-eighth each, six tenants with one-twelfth each and three tenants

with one-twenty-fourth each of the rental. This would give:

1/8 = 6.54 acres infield, 2.11 acres sheelings

1/12 = 4.36 acres infield, 1.40 acres sheelings

1/24 = 2.18 acres infield, 0.70 acres sheelings.

The detailed pattern for Assynt is shown in Appendix 13a. The shares of the rental ranged from 1/2 to 1/72, and the most common shares were 1/12 (40 tenants), 1/16 (34 tenants), 1/24 (31 tenants) and 1/8 (30 tenants). This gives, for many Assynt townships, very small shares of arable land, and the total figures given for infield are quite unrealistic when John Home's remarks are taken into account - that on many farms the infield included the stances of houses and rocky baulks or that in some cases only a half or a third of the infield was tillable or in tillage (Appendix 24). Apart from this, there were extra families, not numbered among the tenants, on each township, as well as 'servants' (see 8.5 below), so that the yields from the arable acreages must have been spread rather thinly. The small unit of Badinimban or Badnaban included with Inverkirkaig, had only infield, some moorland, but no sheelings (the equivalent of outfield on many farms); this would have been regarded as a croft or pendicle on many Highland townships.

The seemingly minute patches or shares of arable land in Assynt may be a feature of the later 18th century, with growing population pressure in a naturally difficult environment. The process of taking in land beyond the head dyke or physically moving the head dyke to a higher level,

as seen on some farms on Lochtayside, was probably not feasible in Assynt. Because of the nature of the physical landscape, the township boundary in Assynt was not the same as the head dyke. On Lochtayside, on practically all of the farms, the head dyke was a height limit, an upper limit to land used as arable, meadow and pasture. In Assynt, arable, pasture, woods, moorland and rough grazing were all within the one boundary - the limit of the township. In her study of the head dyke, Isobel Robertson (1949) noted ... "it is not always the natural boundary ... but a man-made limit to land which could be conveniently worked and which could support crops and cattle sufficient for his livelihood". The Assynt boundary was not really a head dyke, but rather a township limit within which were scattered all types of usable and unusable land, land which could be found more evenly distributed in other, less fragmented, regions of Scotland.

Any expansion of arable, therefore, had to be within the existing limits of the farm, and as far as the broken and marshy nature of the land would allow. This expansion would appear to have proceeded in Assynt by a process of colonising detached grazings or 'sheelings' which in some parts of each farm, and as part of a development beginning obviously before the 1770's, had replaced the outfield component known on Lochtayside and in other parts of the Highlands.

8.4 Tenancies

There appear to have been three types of tenant in Assynt in the early 1770's: the joint tenant, the single tenant and the tacksman (Appendix 12). The joint tenants were in the majority, there being 26 joint-tenancy farms, as against 6 single tenancies and 10 tacksman farms. Home is somewhat confused in his references to these, often referring to 'tacksmen' when obviously joint-tenants are meant - e.g. at Loch Beannoch (20), where he records: "This farm is occupied by four Tacksman (sic) who have it Run-Ridge amongst them".

There were four 'tacksmen' at the time of Home's Survey: Kenneth Scobie and son, Lieutenant Alexander McLeod, William Mackenzie, Alexander Mackenzie. Kenneth Scobie and his son, John, lived on Achmore and also possessed Cromauld, Little Assynt and Rientraid. On these farms were several other families, but these were sub-tenants or 'servants' at most, almost 'caretakers' with no actual shares in the land (but see 8.5 below). In the 1794 Statistical Account, Kenneth Scobie is noted as still possessing Achmore and Rientraid but by then he and his family were living: "... on the good corn farm of Scoury, Edrachilish parish". A Lieutenant John Scobie, probably the son of Kenneth, was then in possession of Little Assynt. Lieutenant Alexander McLeod lived, in 1774, on Ledmore, of which he possessed half, the other half shared among 14 joint-tenants; he also possessed Aultnachie and Battachrianan. William Mackenzie was the minister in 1774, and was still in 1794, when he

compiled the Assynt Statistical Account. He lived on Kirkton which also contained the glebe, and possessed Torbreck, which had four families on it, including a 'grasskeeper'. But William Mackenzie could not be regarded as a 'tacksman' in the accepted definition; nor could the others just mentioned, who seem simply to have been single tenants with holdings on other farms, perhaps mainly commercially-minded tenants who "...specialised in the raising of cattle for the southern markets. They formed, in fact, one of the headstreams of the droving industry" (Adam, 1960, xlviii).

Alexander Mackenzie of Ardloch lived on Ledbeg and also possessed Filin, which had only a 'grasskeeper' and his family in occupation. Mackenzie of Ardloch was also factor of the Assynt estate. His family had possessed lands in Assynt for generations and he was connected with the former Mackenzie lairds of Assynt as well as with the Sutherland family. He was, or had been, a tacksman in the traditional sense, with ties of service and relationship to the lairds or former chiefs. The old tacksmen were disappearing rapidly in the second half of the 18th century (Mackenzie of Ardloch was ousted from the factorship in 1776), many removed by landowners no longer requiring military services and concerned about 'bad influences' on the tenants (in some areas tacksmen were promoting emigration). The daoine uaisle was giving way to the new holders of tacks, entrepreneurs with no ties, other than financial, with the landowners.

Home says little about the organisation of holdings in Assynt. We might assume that run-rig was in operation, but it is referred to in somewhat ambiguous terms at Kirkton: "...comprehending the Manse, Culack, Camore, and Glendu, the infield of which lies partly in Run Ridge with each other". "Part of the Corn Lands next the end of the Loch south from the Kirk are said to be in Run Ridge with the Oxgates of Camore, but as both Culack and Camore are presently let to the Parson and have been let to his predecessors these distinctions have not been much attended to". Part of the Glebe is said to have been "formerly in Run Ridge". As mentioned above, more direct reference is made at Loch Beanoch: "This Farm is occupied by four Tacksman who have it Run-Ridge amongst them". The minister, in the 1794 Statistical Account, mentions run-rig only in relation to the glebe: "The glebe is half an oxgate of land; the grass part of it is distinct by itself; partly rocky and mountainous; the lower part, or fields, is what is here called run-rig (That is, half of every little field). The glebe halfs are for most part next the grass of the glebe. It would be desirable that these low grounds or fields were divided into two equal halves, and not run-rig, as it would have a tendency towards improvement" (Mackenzie, 1794, 202). How run-rig can exist on a single-tenancy farm is not explained; only Mackenzie was a tenant, the other inhabitants of the farm were 32 non-tenants and 11 'servants'. It can only be assumed, from this and the more general remarks for Sutherland as a whole, from Henderson (1812) and from the few notes of

John Home, that some arable land was still being held in run-rig in the 1770's.

8.5 Non-Tenants

As mentioned under 'Rents and Size of Holdings', there is no reference to crofters, pendiclers or cotters in the Assynt Survey, in the 'Particular Rental of the Estate of Assint, as set on 15th May, 1775', or in the 'List of Inhabitants of the Parish of Assint, November, 1774', the latter two documents discovered and used by Adam (1960) to augment the sometimes meagre information provided by John Home. There were, however, many families in the townships who had no tenants shares. The figures for these are listed in Appendix 16, and shown graphically in Appendix 17.

These non-tenant inhabitants of Assynt were to be found in considerable numbers on single-tenant farms, e.g. Torbreck, Oldernay, Auchamore, Kirktown, Ledbeg, Ailfin and Aultnachie. The greatest number of non-tenants is at Clashnessie, the most densely populated farm in Assynt, and at Kirktown, where the actual tenant population, as mentioned above, consisted of the minister, William Mackenzie, and his wife and family, while there were 32 non-tenants and 11 'servants'. The percentage of non-tenants and servants will obviously be high where the farm has a low number of tenants, but some joint-tenancy farms (e.g. Clashnessie, Baddiedarroch, Culack, Inverkirkaig and Badinimban, Nedd, Duchlash and Polgarvier, Knockon) had large numbers of tenants and a high percentage of non-tenants. The proportions are inflated in a few cases

by the fact that some joint-tenants resided on one farm and had a small share in another, e.g. at Knockneach and at Duchlash. Almost all farms had non-tenants and 'servants'; among the coastal farms, Torbreck had no 'servants' and among the inland farms, Polgarvier, Loch Beanoch and Tubeg had no non-tenants and Little Assint had no servants. Who were these people who formed 44% of the total population of Assynt? A few were the millers and their families (e.g. at Clashnessie) although the millers at Glenlirag and Stroncruby were joint-tenants. At Clashmore there was a 'Catechist' and at Culack a "travelling Padler". The single non-tenant occupant of Little Assint was a 'grasskeeper' and his family; and a grasskeeper with wife and son were among the non-tenants at Torbreck. Many widows were listed among the non-tenants, but how did they live? The situation is not explained by John Home in the Survey, and the Rental and List of Inhabitants have no extra information. Could some of these non-tenants be the crofters known in other Highland regions? If so, there is no mention of entitlement to a piece of arable land for any of them. There were 287 'servants' some of whom would surely have been classed elsewhere as cotters, but their standing here is unclear. When the number of households and the number of buildings on some of the farms are examined, there seem to be hardly enough to contain this large non-tenant population. Home's comments for Oldernay include: "There is on this possession six Tenemants or Cot-houses for Servants besides the Miller and Herd who resides in the Island, and also one who moves

from one Sheeling to another, now living at the remotest Sheeling belonging to the farm called Prestanie, taking care of the Corn growing thereon. These people hold of their landlady (Mrs Jean Mackay, the single tenant) and are bound to serve her at pleasure according to the practice of the Country". But what did they hold?

On Reintraid, Home says: "There is no more ground keept in tillage but the Infield about the Houses which is laboured by the people who herd the cattle for their Master who allows them to labour so much as pays them for their trouble". This may be the explanation for farms with absentee single tenants, and perhaps for single-tenant farms in general. There was more than enough arable for the single tenants and the non-tenants, and the 'servants' probably 'laboured' a share also. But this is nowhere stated.

On coastal farms, other pursuits are suggested - e.g. at Baddiedarroch, where Home notes: "... besides the principal Tacksmen, there are sundry others residing upon this Farm, whose chief employment is at the Fishings". This is augmented, and one of Home's many weaknesses emphasised, by the statement at Bellachlattach: "There are sundry Families residing on this Farm, butt whether the whole is lett to one Tenant or belongs to Clashmore or Store, was not told to the Surveyor, as most of the people were employed at the Fishings when the Survey was made and those who were at home declined answering such questions". At Culack - "... upwards of a Score of Families whose great business lies at the Fishing"; or at Store - "... there are above a dozen of Families

besides residing upon it who are chiefly employed at the Fishing". 'The fishing' was therefore a useful, if not essential, alternative occupation on the coastal farms, and that might account for the subsistence of many non-tenants in an already over-populated area. There was apparently no similar alternative for non-tenants on inland farms; eleven of these were single-tenant farms where the non-tenants might have had an adequate share of the produce of the arable land - e.g. the 31 non-tenants on the single-tenant farm of Auchamore must presumably have been allowed to 'labour' part of the ostensible 160 acres of infield, but this is nowhere stated. But what was the lot of non-tenants on large joint-tenancy inland farms such as Ledmore, where the two smallest tenants' shares were each only one-seventy-second part of 95 acres of infield? There may have have been holdings of crofter or cotter type, but John Home seems to have missed, misunderstood or ignored this level of Assynt society.

8.6 The Cattle Trade

There are no figures for livestock in Assynt, perhaps because this was not meant to be part of John Home's Survey. He does, however, make frequent reference to cattle and sheep on the farms in the parish. In the Old Statistical Account, William Mackenzie shows how much of the economy was geared to the raising of cattle. "By the close of harvest, or beginning of November, cattle are sent to winterings (certain grazings preserved during the whole

three harvest months, to which the cattle are sent, and continue there for the winter quarter without being housed), where they continue to the beginning of February or thereby, at which time they are taken thence, housed, and fed; the milk cows, in preference to all, are pastured through the day, if possible, in the moors, or, if prevented by one or more bad days, are supported sparingly within doors". Describing the island of Oldney (Oldernay) Mackenzie notes: "During the harvest months, no bestial is allowed to enter it, being all that time preserved for out-wintering pasture. Cattle are put in there some time in November (as into all other winterings), are thence gradually taken out to be housed at the beginning of spring, as they may appear to need provender" (Mackenzie, 1794, 164, 177). Mackenzie also notes the bad and good years since his arrival in Assynt. The year 1766 was severe and many cattle were lost, 1771 had a bad harvest and a severe winter so that: "... the shortfall of the harvest was so great that very heavy imports of meal were necessary. The tenants were stretched to their limit and took the extraordinary step of proposing to their landlord the renunciation of their leases. The Tutors of the Sutherland Estate refused that proposition but, instead, gave the tenants extra time to pay the rent and indirect financial assistance by employing them to build stone walls and other works" (Richards, 1982, 91). It is estimated that at least one quarter of Assynt's cattle were lost over this winter. This becomes all the more crucial when the money element of the rent becomes due, because this

was derived from the sale of the cattle at the southern trysts. Assynt was an important contributor to the droving industry. Charles Gordon of Skelpick, a professional Sutherland drover, had a tack of Rientraid from 1766 to 1775, and Adam (1960, xlviii) describes the large inland grazing farms as specialising in the raising of cattle for the southern markets: "They formed, in fact, one of the headstreams of the droving industry".

As already mentioned, the sale of cattle in the south brought the only cash to the tenants with which they could pay their rents. Cash was normally sent to a Law Agent or 'doer' in Edinburgh. Adams (1980, 171) has shown that, in the 1740's, about 29% of the membership of the Society of the Improvers in the Knowledge of Agriculture in Scotland were Edinburgh lawyers, many of them 'doers' - factors or commissioners of Scottish estates who, among other duties, received revenues from these estates, particularly from areas where the landlord was not resident. One method of getting the cash rent from tenants was for the drovers to pay the money from the cattle sales to the Edinburgh agents as they came north again. A letter from Alexander Mackenzie of Ardloch, the Assynt Factor, to the Edinburgh Law Agent in 1760, suggested this method of payment for the Assynt tenants as better than returning the cash to them directly - "...for when the Tennents are at full freedome as now here they squander a good deal of the Ready Money they get" (Adam, 1960, 94). This form of credit economy often worked against the landlords in a period when ready cash was

becoming very important. Ardloch, in a letter to Captain Sutherland at Dunrobin in February, 1774 (the year of the Survey) wrote: "Ever since the year 1765 the Tennants on this Estate have been falling gradually back in their payments So as the Rents 1772 were only clear'd by the Droving of this year 1773, and the Rents of 1773 shall only be clear'd by the Droving of this year 1774". Adam (1960, 94) has suggested that the failure of the droving in 1772 (a severe winter during a period of low cattle prices) and the consequent inability of the drovers to pay any money to the cashier in Edinburgh when they came north again in November and December, was the immediate cause of a very serious financial crisis on the Sutherland Estate.

Exact numbers of sheep in 1774 were also not recorded by Home, but they were held on most farms and Home's remarks suggest he was thinking of sheep-farming; e.g. on Auchnagarnan: "The pasture grounds have a smoother surface than Clashnessie and rather preferable for sheep"; at Culkein: "... the Hill of Shianmore yields short greenish pasture mixt with Heather and is excellent for Sheep especially in winter being always dry and snow seldom lies on it"; on Culkein Drumbeg: "... the rocky Parts are dry and excellent for Sheep". A letter from Captain Sutherland to the Law Agent in Edinburgh in 1775 stated: "You'll give directions to fix a price to the hundred Ewes with their Lambs that I wanted of the Linton Sheep at Dunkeld ... This tryal of Sheep I intend to make is with a View to introduce that usefull Animal among the Countess Tenants, more than any profit I can make from

them myself" (Adam, 1960, 1i). These were a few of the 'four-footed clansmen' that were to appear in their thousands before the 19th century was more than two decades old.

8.7 Other Occupations

The most important, probably vital, alternative occupation to agriculture and stock-raising in Assynt was sea-fishing. John Home gives a vivid picture of activities in Loch Inver in his notes on the farm of Inver: "The farm of Inver lies pleasantly situated at the confluence of the Water of Assint (River Inver) with that Bay of the Sea called Loch Inver which next to Kyle's Cu is esteem'd the safest and most commodious Harbour upon the Western Coast. The great resort of Shipping here, occasioned by the Herring Fishing, renders it at once both delightsome and profitable. Mr Campbell, the present possessor (of Inver), seemingly enjoys it much, being an excellent Fisher himself and very communicative and obliging to all the seafaring people. Nothing can excell or rarely equall the great variety of the Fishing peculiar to this place; all sorts of both fresh and Salt Water Fish being got in the greatest perfection as well as Herring which has brought from Fifty to Eighty sail at once to the place and have been seen lying here three or four months". The arrival of herring shoals in the bay of Loch Inver in January, 1773 probably kept the people alive during the severe winter of 1772-73. Home, commenting on hay-making at Oldernay, felt that: "...much larger quantities might be made, if due attention were given, did not the Fishings interfere much with this usefull Work,

particularly the herring Fishing, which has of late ingross'd their cheif attention: but which must be allowed to be of general benefit to all the Country, as both Servants and Masters reap their advantage in it, the one for their labour, and the other by the Sale of Cattle, especially Sheep, which sell very high to the Sailors, and others employed at the Fishery".

William Mackenzie, in the Old Statistical Account (1794), also commented on the safe harbour of Loch Inver: "...where, when the herring-fishing offers successfully, there may be seen occasionally two, three or four score, and sometimes a greater number of ships. These come from every part of the east and west coast of Scotland, from Stornoway, nine leagues distant from this coast, and seen from it, when the day proves clear and serene. A few ships come from the islands of Orkney and Man. All these herring-busses, their numerous crews, boats, and great trains of nets, makes no less pleasant than grand appearance. In pursuit of herring, the crews, etc., set out to fish late in the evening and continue till early next morning. The busses ride at anchor. Such is the method practised" (Mackenzie, 1794, 173-4).

Describing the Assynt farms and their locations, Mackenzie continues: "...in our way to Row-store (Rubha Stoer) point, several farms and grazings offer to view, interspersed with numberless rocks, stones and hollows; However, all have the advantage of fishing. Every farm has one, two or more boats, according to the number of inhabitants fit to be employed". "Loch-Nedd is the second best, if not equal to

the harbour of Loch-Inver. It is safe, and sheltered from every wind, and in time of the herring-season, there may be as great a number of shipping here as at Loch-Inver". Finally (p.185), referring to the coastal farms: "But the inhabitants being numerous there, think it easier, and attended with less expence, to delve their several divisions of land, than be at the trouble of clearing the ground, or of using horses and ploughs, especially as their immediate subsistence depends on their success in fishing, to which they must pay regular attention". It was obviously essential for the inhabitants of the over-populated coastal farms to have one foot on the land and the other in the sea.

Few other occupations were listed by Home or in the List of Inhabitants. In a region so remote and difficult of access, almost everything had to be made by the tenants and their families. The situation was summed up by Adam (1960, lii): "Craftsmen were rare: two weavers (at Culag and Inverkirkaig), a smith (at Dubh Chlais), a tailor (at Knockan) and a carpenter (at Stoer) are the only ones mentioned. If we add three grasskeepers (at Filin, Little Assynt and Torbreck), five millers (at Clashnessie, Culag, Glenleraig, Oldany and Stronechrubie), a travelling pedlar (at Culag), the catechist at Clashmore and the minister, we have all those whose occupations are specified. Home himself thought that the absence of a 'mechanic' was a deficiency and his predecessor's illness had sent messengers scurrying to Tain. When the minister of Assynt built

himself a new manse in 1771, he brought in a master mason from outside. Most materials had to be imported also: the heavy timbers came from Ross, small dressed wood from a tacksman in Coigach, nails and glue from a merchant baillie of Tain, glass from Inverness, and two wheelbarrows from Edinburgh. Beyond black cattle, herring and salmon, Assynt had little of its own to offer the outside world".

CHAPTER NINE

ASSYNT IN THE LATE 18th CENTURY: THE SETTLEMENT PATTERN AND ITS POSSIBLE REMAINS

9.1 The Towns or Farms

Apart from the hypothetical 'davochs' described by William Mackenzie in the Old Statistical Account (Figure 54), the major division within Assynt was the farm or farm township. The size varied from Ledbeg, an inland farm with a total of 10,813 Scots acres including 163 acres of infield and 45 acres of sheelings, to Baddidarroch, a coastal farm totalling only 337 acres including 40 acres of infield and 8 acres of sheelings (Figure 57). This difference in size was an important feature of the Assynt settlement in the later 18th century - large inland grazing farms (12 out of 20 over 2000 acres) and smaller coastal farms (5 out of 22 over 2000 acres) with high population density and fishing as a necessary alternative occupation. The population figures per farm support this dichotomy (Appendix 14). As mentioned in 8.1 above, half of the 22 coastal farms had more than 50 inhabitants each, but only 2 of 20 inland farms had populations of more than 50 (Ledmore and Stronecruby). This may be summarised:

22 Coastal Farms	1175 Inhabitants	Average 53.4 per farm
20 Inland Farms	543 Inhabitants	Average 27.15 per farm

A further difference was the alternative occupation of fishing on most of the coastal farms. Mackenzie, in the Old Statistical Account (1794), noted that every coastal farm had "...one, two or more boats according to the number of

inhabitants fit to be employed". John Home's remarks suggest that, at the time he was in the field conducting the Survey (mid-June to mid-September, 1774), many township inhabitants were "employed at the fishing".

9.2 The Settlement Clusters

The houses, outhouses and yards that formed the individual settlement clusters in Assynt in 1774 were often sited in areas where occupation has continued down to the present time. This has meant that many buildings have been totally removed to make way for more recent structures, often using much of the older stone material. But there are also sites where obviously old dry-stone buildings have been retained as stores or sheds, possibly on original foundations. John Home's representations of the buildings on his plans are usually labelled 'Farmstead', and the oblongs are quite tiny (Figure 58a). It is difficult to make an accurate list of sizes or orientations since the scale is 1:21,346 (i.e. 1 inch = 593 yards or 1 cm = 213 m), whereas the Lochtayside plans are at a scale of 1:5337 (i.e. 1 inch = 148 yards or 1 cm = 53 m).

Details of a selected number of farms, 29 from 42, are given in Appendices 18 and 19, and these may be summarised here:

Coastal Farms	Clusters	Tenants	Inhab.	Inhab. per Cluster	Buildings in Clusters	Buildings (isol.)
17	24	150	918	38.25	296	5
Inland Farms						
12	19	32	274	14.42	109	1

The heights of clusters vary from 40 feet (12 m) above sea level on the coastal farms, to 500 feet (152 m) above sea level on the inland farms. Most coastal clusters are between 40 feet and 100 feet (12 m and 30 m) above sea level, on inland farms between 250 feet and 400 feet (76 m and 122 m) above sea level. The highest cluster is on an inland farm (Layn), but in general the heights are not great when compared with those of the clusters on Lochtayside (Appendices 5 and 6). The number of clusters per township on the 29 farms selected ranges from 1 to 4:

1 cluster	-	20 farms
2 clusters	-	6 farms
3 clusters	-	1 farm (Tubeg)
4 clusters	-	2 farms (Oldernay, Stroncruby)

From this it can be seen that 69% of the farms examined had only one settlement cluster. This again possibly reflects the broken nature of the land with limited areas for arable and buildings, and note again Home's statements that in most places the infield included the stances of houses, yards, baulks, etc. Most of the townships with greatest population density had only one cluster. The farms with 4 clusters, Oldernay and Stroncruby, had 38 and 52 inhabitants respectively, whereas Clashnessie (103 inhabitants), Stoer (83 inhabitants), Auchmelvich (79 inhabitants) and Clachtoll (78 inhabitants) had only one cluster each. There appears to be no relationship whatsoever between the number of tenants and the number of clusters (e.g. Clachtoll - 16 tenants, 1 cluster).

One feature which could raise doubts as to the accuracy of Home's plans is in the ratio of buildings to inhabitants on some farms. On Clashnessie there were 103 inhabitants; Home shows 25 oblongs or buildings (Figures 58a and 59) including the mill, which would not leave many for classification as barns, stores, sheds, etc. At Kirktown, if the minister and his family are omitted, since they would have been living in the Manse, there were still only 6 buildings for 8 households. Elsewhere, the ratio is reversed. On Tubeg there were 3 clusters ('West, Middle and East Steadings'), but only one household of 6 people in occupation of the whole township. This suggests that 2 of these clusters might have been buildings to shelter animals, or were barns, etc., so it cannot be said that Home was showing only dwellings. His consistency must, however, come under some doubt.

The number of buildings per cluster shown by Home ranges from 25 to 2 on the farms studied.

25	buildings	- 1	cluster	(Clashnessie)
24	"	- 1	"	(Culkein Drunbeg)
23	"	- 2	"	(Clashmore, Auchamore)
22	"	- 1	"	(Stoer)
19	"	- 1	"	(Auchnagarnan)
18	"	- 1	"	(Inver Chirkag)
17	"	- 2	"	(Auchmelvich, Nedd)
15	"	- 1	"	(Clachtoll)
13	"	- 2	"	(Inver, Baddiedarroch)
11	"	- 1	"	(Brackloch)
10	"	- 4	"	(Culkein (2), Culack (2))
9	"	- 1	"	(Knockneach)
8	"	- 5	"	(Bellachlattach, Oldernay, Drunbeg, Ederhalda, Stroncruby)
6	"	- 3	"	(Badinimban, Inchnadaff, Layn)
5	"	- 4	"	(Torbreck, Loch Beanoch, Little Assynt, Drunbeg)
4	"	- 3	"	(Oldernay, Kirktown, Stroncruby)
3	"	- 5	"	(Oldernay, Auchamore, Tubeg (3))
2	"	- 5	"	(Oldernay, Batachrianan, Kirktown, Stroncruby (2))

This averages out as:

Coastal Farms - 12.3 buildings per cluster

Inland Farms - 5.7 buildings per cluster

The settlement clusters in Assynt in 1774, as represented by John Home, show little evidence of linearity or regularity; they could all in fact be described as 'amorphous'. The absence of what might be described as 'Linear/Rectangular' forms (see 6.2 above) could be due to the small scale used by Home on his plans, where accurate orientation would be difficult to portray in drawing the plans. The present and surviving settlements, however, mostly show a similar amorphous layout, perhaps suggesting some continuity from the 18th century, apart from the linear arrangement of the modern village of Lochinver along the shore.

There are, therefore, some difficulties in accepting Home's information uncritically. For example, in his notes on Oldernay he states: "There are thirteen Sheeling places upon this farm", but on his plan of Oldernay the sheelings are numbered up to 18, although numbers 1 to 5 have in fact been attached to arable land. The acreages for 2 sheelings differ as between notes and plan, and two areas of arable have wrong numbers and acreages between notes and plan. On the neighbouring farm of Clashnessie (Figure 58a), two sheelings have different acreages in the list from those shown on the plan. Adam (1960, li - liii) comments - "We can only regret that neither Home's comments nor any of the other evidence has anything to tell us of its (the farm of Stoer) intricate communal life". "Home too was

reticent, or unobservant". "And for the houses, the clothes, the day to day life of the people of Assynt, the sketches attached to his plans are more revealing than his words". "Home, meticulous and tenacious, was as little impressed by his natural surroundings as by the life of the inhabitants". "His survey was not the work of an enthusiast; it can tell us little of a way of life that was shortly to disappear, little of the harshness of existence in an inhospitable land". Despite these remarks, and the inaccuracies that a closer inspection of the plans reveal, the Survey is a useful indicator of later 18th century settlement and economy.

9.3 The Settlement Remains

As previously mentioned, occupation has continued on many sites, often obscuring earlier remains. There are, however, sites which were deserted by the time of the first O.S. 6" (1:10,560) map. For example, the settlement and whole arable area of Loch Beanoch (20) were abandoned by 1875, the date of the survey for the 6" map. Home shows only 5 buildings for 5 households and 29 inhabitants, but there are remains of at least 6 buildings and 3 yards, some of which of course could represent post-1774 structures. The main settlement and infields of Batachrianan (Figures 74 and 75) were also abandoned between 1774 and 1875; Home shows only 2 buildings in 1774 for 2 households and 8 inhabitants, but there are remains of 8 buildings surviving. Again, post-1774 construction might be suggested, but there is still the possibility that Home did not record all buildings, or that he ignored some sheds, barns, outhouses, etc. Some of his clusters do look like a stylised scatter

of black oblongs to indicate where the settlement was situated rather than to provide an accurate account of all the existing buildings. However, for purposes of comparison, they have been accepted as indicating the number of houses.

As on Lochtayside, there are no traces of buildings in any material other than stone, although old accounts suggest that less durable materials had been in use in Sutherland in the 18th and even into the early 19th century (Appendix 28). Most of the remains are only a few courses of dry stone; some few stand to gable height, showing straight gable ends, and a very few are complete, probably on original footings, but undoubtedly having been repaired or partly rebuilt from time to time. Because of rebuilding on the same locations and making use of the existing material of older ruins for later structures, it is often easier to identify remains of settlements on former sheelings that were colonised (see 9.4 below), particularly those that were abandoned in the 19th century.

In his discussion and listing of the contents of the various Assynt farm-towns, Home gives no information on the buildings within the settlements, their size, their appearance, or the raw materials from which they were built. He refers to houses and buildings as: "Farmsteads", "farmsteadings", "farmhouses", "steadings", "Tenaments of Houses" (Tubeg),"steadings of Houses", "Cot Town Houses" (Elphin), "the Steadings of Three Tenements" (Kirktown), "Cot Houses", "Tenemants or Cot-houses" (Oldernay) and "four

Tenaments or subset Houses" (Stroncruby). The more substantial house of Mackenzie of Ardloch, Factor of Assynt, on Ledbeg, is described as: "...the Principal one in the Parish, consisting of two Stories". This 'Laird's House' is similar to the possibly older 'House of Lawers' on Lochtayside (Figure 33, Plate 32). The other major house ruin in Assynt is the 'House of Calda', near Ardvreck Castle on the north shore of Ardvreck Castle (Figure 83 and Plate 57) a Mackenzie mansion until it was burned down in 1737.

Home's vignettes or sketches on the corners of his plans give a better, if somewhat tantalising, indication of houses and buildings in Assynt in 1774. The sketches (Figures 82 and 83) show basically two types of building, if they are to be accepted as being in any way accurate. The types are illustrated by an attempted enlargement (Figure 84) from some of the sketches. Types A appear to be of less permanent materials - this is a suggestion based solely on their shape. The structures at the top left and centre left, with their domed, conical or possibly corbelled shape, are reminiscent of the famous drawing of "Sheelings in Jura" from Pennant's Tour of 1772, discussed in Chapter 12.2 (Plate 112). They may have been sketched by Home as representative of sheeling bothies he had seen on the farms of Inch-na-daff, Tubeg, Loch Beanoch, Nedd, Drunbeg, or Culkein Drumbeg (the plans on which the sketches appear), but this must to a great extent be conjecture. The other A types (top right and middle centre on Figure 84), could also have been large sheeling bothies, but they might also have been barns or other outhouses with walls of mixed turf and dry stone or

turf alone, and wattled gables. The B types appear to be the houses and byre-dwellings with straight gable-ends, seemingly dry-stone built, with the round-ridged turf- or straw-thatched roofs seen in the few survivals at present (Plates 58-61, 70, 71). There is no indication of the hip-ended type of building on the sketches, which could mean that, presuming its previous existence, this form was already being replaced in Assynt.

It is possible, and likely, that many of these buildings survived as ruins on their original locations but, as mentioned above, Home's plans of the clusters of houses are so small in scale that the possibility of matching them with existing remains on the ground presents much greater difficulties than do similar remains on Lochtayside (see Chapter 6 above).

On Clashnessie (Figures 58a, 59, 60) there are many ruins which could date from the late 18th century, but for the reasons already stated it is difficult to compare them with Home's plans. A comparison of Home's plan with the first (1875) O.S. 6" (1:10,560) map shows a similarity of clustering of settlement, but with post-18th century houses and other buildings stretching north and south away from the main 1774 concentration. Among surviving structures, two buildings, A and B on Figure 60, show signs of an earlier form of architecture. Completely drystone built, they have cruck couples supporting a shallow-pitched roof (Plates 58-61). This type of building can be seen surviving on several townships in Assynt. They are nowhere used as dwelling-houses, but seem to be an old form of construction preserved

and maintained on original, possibly 18th century, footings, but now functioning as byres, sheds or outhouses. They are not unlike the 'B' type of building portrayed on Home's sketches (Figures 82-84). The 1774 settlement was a fairly compact group on the western side of the burn coming down from the waterfall which gave the town its name. The burn powered the mill which survives, in ruined condition, on its original site (Plate 62). To the east of the burn and the main Clashnessie settlement is a cluster of ruins located at site C on Figure 60. It is not marked at all on Home's plan, on which quite small areas of 'sheelings' were recorded, but this could mean again that the settlement developed here after 1774. The main building (No.3 on Figure 61) is roughly built of dry stone with evidence of cruck supports for the roof at its NW end, whereas the SE end is mortared with wooden window frames, a built-in gable fireplace and no trace of cruck-slots. This may be another example (see 9.4 below) of a former grazing area becoming arable and being colonised, with buildings expanding to support a more permanent population. The group might have housed one family or household, the other smaller buildings (Nos. 1 and 5 on Figure 61) being byres, barns or sheds rather than dwellings. The buildings shown at D on Clashnessie (Figure 60) are located on what was the sheeling ground of Imir Fada.

The 1774 settlement cluster on Clashmore (A on Figure 63) belonged to a coastal farm but was separated from the coast for most of its length by Belachlattach (Balcladich)

on the west and Clashnessie on the eastern side of the Stoer Peninsula (Figure 58). There are now no upstanding remains of the original cluster and the settlement focus has shifted farther to the west. In 1774, the settlement cluster was located on the lower slope of Druim na Claise, near the north-eastern end of Loch na Claise (Figures 62 and 63). Some foundations survive, and they show a rather cell-like layout of buildings with their own small dyked areas or 'yards', only in this case the enclosures seem to have contained some of the arable land since there are rig marks showing within the enclosed areas, resembling islands of cultivation separated from the surrounding moor or rough grazing by their enclosing dykes (Figure 64 and Plate 73). The foundations show longer, divided buildings, possibly byre-dwellings, and smaller cott- or barn-size structures. The situation of the buildings along the lower slopes of Druim na Claise may have been due to marshy conditions on the lower level ground where a small stream runs into the north-east end of Loch na Claise.

At Clachtoll (Figure 65) the buildings were shown on Home's plan as a fairly tight cluster just inland from the seacoast. The stretch of land to the west of the settlement, separating it from the beach, has the remains of a broch (Plates 75 and 76), Home's 'Old Castle', and the O.S. map also shows a scatter of 'Tumuli' in this area. One sizeable cairn can be distinguished, but the remainder of the 'Tumuli' are so scattered and difficult to trace that they must have been used in the past for the building of dykes and even

houses; some bear a greater resemblance to hut circles than to tumuli. The broch still has several well-built courses of Torridonian sandstone blocks upstanding. A fair depth of the interior has been preserved by inward-falling stones and the entrance passage survives with door checks visible beneath a triangular lintel. The first (surveyed in 1875) O.S. 6" map (Figure 65) shows the locations of a 'stone cup' and a coin of Charles II found in the vicinity. The cup and the coin were found in a marshy area which John Home showed as a loch in the middle of an infield area in 1774. The evidence is suggestive of occupation, perhaps intermittent, over a considerable period of time. A hundred years after Home's plan, the 6" map shows a less compact, 'strung-out', settlement grouping (Figure 65). There are remains of dry-stone dykes scattered over the whole settlement and infield area, suggesting that some of the infield must have been enclosed. This is not surprising in a region where the level and arable land was so fragmented and patchy. As mentioned before, tracing the 18th century buildings is difficult because of continuity of occupation on the same locations and 'cannibalisation' of older buildings in the construction of the new. The juxtaposition of older and more recent can be seen at A on Figure 65 and on Plate 74. These remains are on the northern shore of the Bay of Clachtoll (the shingle of the beach can be seen in the bottom right corner of the photograph) not identifiable on Home's plan. The nearest ruin is entirely dry-stone built and could credibly date to 1774, the farther structure is

mortared with many trimmed stones in its walls and with the interior walls plastered. This newer building is shown as a solid black rectangle on the 6" map, suggesting that it was occupied or certainly roofed in 1875, whereas the nearer building is shown as an open rectangle. They are at the south-western corner of a large 'yard' which could conceivably have been a patch of enclosed infield (there are faint traces of what might have been rigs within the dyke). If the nearer building is in fact a remnant of Home's 1774 settlement cluster on Clachtoll, then it illustrates again the difficulty of matching the present remains with possible survivals of the Survey.

On Auchmelvich (Achmelvich), the buildings were again, in 1774, in a single cluster not far from the shore (A on Figure 66). The present Achmelvich has developed on the same site so that there are not many easily recognised traces of its predecessor. However, there are two ruined buildings (located at X on Figure 67) west of the main group and not separately shown by Home. These may therefore be post-1774 in origin, although the stylised clusters of the Survey may not have included all outlying buildings; a comparison of the 2 plans at Figure 65 will show that Home's orientation of settlements and coastal configuration were far from accurate. The two ruined buildings are right on the shore of Achmelvich Bay, surrounded by rocky outcrops (Figure 68 and Plates 77-79). They are dry-stone built and part of the lower cruck couples supporting the roof survive. The crucks are not obviously sawn off. The area is described

by Home as: "Uneven rugged rocky ground with patches of corn", so that buildings might not be unusual in a location beside what would seem to have been small patches of 'infield', particularly where Home in his notes describes the infield in general as consisting mainly of: "... Rocky Baulks so that only about one half can be keept in tillage".

The township of Culack was on the southern side of Loch Inver (Figure 72). It had a mill and a small 'Milltown' settlement at the north-western corner of the farm, but the main settlement group was in a saucer-shaped hollow just inland from the coast, known today as Strathan (Plates 89-91). There are many remains of older buildings in the group. In his notes on the farms Home states: "South from the Milltown and towards the March with Inver Chirkag is a large cluster of Houses occupied by thirteen Tenants ..." Apart from the fact that only 12 tenants are listed in the Rental for Culack (Appendix 12), the 'large Cluster' as drawn by Home had only 10 buildings, hardly enough for 12 tenants ...Other tenants, whether 12 or 13, could have been located in the group of buildings at the mill to the north of the town, but Home does not make this clear and it is again possible that he was not showing all the buildings as they existed at the time. His plan (Figure 72) shows all the buildings lying on the southern side of the Allt an t-Strathain, which is where the older remains are to be found at present. The infield was on both sides of the burn and traces of rigs can clearly be seen on the photographs (Plates 90 and 91). The ruins are mainly of dry-stone built structures with

straight gables and sometimes remains of cruck-slots in the walls. Among and occasionally attached to these older structures are later houses with mortared walls, built-in gable fireplaces and non-cruck roofs supported on the wall-tops (Plate 91). Apart from the 'Milltown' with about 10 buildings on the northern edge of Culack, Home also mentions, on the southern boundary of the township: "...Ellagorratten a Croft at the March Burn with Inver Chirkag". The single building shown on Home's 1774 plan (X on Figure 72) had increased to three by the time of the first 6" map 100 years later (Figure 73). The significance of this 'Ella-gorratten' is Home's reference to it as a 'croft'; nowhere else is the status of 'crofter' mentioned by Home, or discussed. This class of holding might have existed in Assynt in 1774, but Home did not make it clear, as he failed to do in so many other important details. As mentioned in 8.3 above, the small area of Badinimban included with Inverkirkaig (Inver Chirkag), Culack's neighbouring farm, had only 9.5 acres of infield and no sheelings, so that it would be regarded on, say, Lochtayside as a croft or pendicle; but Home refers to Badinimban as: "... only a Subsett, belonging to Inver Chirkag... occupied by two or three people who complain much of the small priviledge allowed them by their Landlord of the Hill pasture". The "two or three people" were in fact 5 families, including 3 servants, numbering 20 inhabitants in all. The one feature that might differentiate this holding from crofts and pendicles in general was that half of the rent (15 merks)

was paid by Kenneth Mackenzie, main proprietor of the town of Inver Chirkag (possibly the 'Landlord' referred to by Home). The rest of the rent was paid by 2 of the 5 families (1/4 (7½ merks) each). On Ledbeg, possessed solely by the Factor for Assynt, Mackenzie of Ardloch, Home mentions: "...A croft ... possess'd by John Mackinzie and Noel Clemen". Certainly something other than normal tenancy is hinted at here.

9.4 The 'Sheelings'

A major component, if not the major component, of the Assynt landholding and settlement pattern in the later 18th century was the 'sheelings'. These lands, in at least 250 patches, large and small, were scattered across the parish (Map, Figure 57). Miller (1967) noted 246 sheelings, but there are more, e.g. there are 7 sheelings listed by Home for Auchmelvich in his description of the farms, but more than this are shown on his plan. The sheelings were widely distributed within the parish, with the greatest density in the north-west, thinning out towards the east and south-east. The 22 coastal farms shared the greater number of sheeling grounds - 140 sheelings or 6.36 per farm, while the 20 inland farms had 106 sheelings or 5.3 per farm. These averages are not particularly valuable, since the sheeling grounds vary greatly in area (Appendix 21), from 0.75 acre patches at Clashnessie, Ardvair, Auchamore and Ledbeg to the large triangular sheeling of 53 acres on the Traligill River at Kirktown (D on Figures 79 and 80). About 85% of the sheeling

grounds were under 10 acres in size, the majority of the larger being on the coastal farms. Glenlirag had 13 sheelings totalling 75.9 acres and Oldernay had 14 sheelings totalling 72.8 acres (all but 2 of Oldernay's sheelings were under 7 acres in size). The largest sheeling holding in Assynt was on the inland farm of Kirktown, the tenant of which was William Mackenzie, minister of the parish and author of the Statistical Account of Assynt in 1794. The sheeling area was 95.9 acres - more than half of which was represented by the 53-acre sheeling already mentioned. This was an unusually large holding for an inland farm; the other inland farms had sheeling totals of less than 50 acres and individual sheeling areas of less than 15 acres. At the other end of the scale, the inland farm of Ederahalda had only one sheeling of 1.8 acres and Battachrianan had 2 sheelings totalling 7.54 acres. The smallest coastal holdings were Reintraid, with 2 sheelings totalling 5.15 acres, and Philin, with 3 sheelings totalling 7.25 acres. The 22 coastal farms had 61% of the total sheeling acreage for Assynt as a whole.

22 coastal farms - 140 sheelings (924.98 acres) = 42 acres per farm

20 inland farms - 106 sheelings (581.62 acres) = 29 acres per farm

This equates to a great extent with the distribution of population between coastal and inland farms mentioned in Chapter 8.1 and with the greater pressure on land in the coastal farms.

The height above sea level and distance from main settlement group has been listed for the sheelings of 17 coastal and 12 inland farms, a total of 161 sheelings (Appendices 22 and 23). 60% of the sheelings of the coastal farms and 72% of the sheelings of the inland farms listed were less than 2187 yards (2000 metres) from the main settlements. Many sheelings are referred to by Home (Appendix 24) as being in corn, in tillage or as arable; these, too, tended to be close to the main settlements, apart from farms such as Inver which had detached areas at some distance from the settlements. On Oldernay, the most distant sheeling was in corn and had to have a house constructed beside it for the man who looked after it (Oldernay, Appendix 24). Most of the sheelings are at no great height above sea level (Appendix 23), and those which were arable or in corn were mostly below 328 ft. (100 m). On some of the inland farms the sheelings are higher, but so, too, are the main settlement clusters. 'True' hill sheelings are not often mentioned by Home, but there is a reference on Kirktown: "The only Hill Sheeling lies at the head of the Burn of Polandrain, where there is a spacious Corry bounded by the Connivel on the North and East; by the sides of which Mountain, and along the Burn of Polandrain, there are several Patches of Greens and coarse Grass, mixt with long heather, lying betwixt the head of the Burn and the remarkable Linn or Waterfall which is surprisingly grand and dreadfully awfull. As the Corry lies a great way up the Hill it affords no grazing but in the summer Season. The Sheeling at the upper

end of this Corry likewise affords little or no Pasturage but in the Summer Season". No sheeling ground is marked here by Home on his plan, but two buildings are shown. This is the site on the Poll an Droighinn ('Polandrain') Burn, about 1100 ft (335 m) high, at a distance of about 2920 yds (2670 m) from the main settlement cluster (NC 278 234). There are traces of sheeling huts on the ground (X in Figure 79).

Evidence for the development of Assynt sheelings to arable areas and, in some cases, to permanent settlement, takes various forms:

1) Home's references (Appendix 24) to sheelings under corn and often yielding better crops than the infield
2) Traces of rigs or lazy-beds on sheelings
3) Dykes or other evidence of enclosure, sometimes sub-dividing the sheeling
4) Some small clearance cairns on sheelings
5) Remains of buildings on the early 6" (1:10,560) maps and on the ground.

This process of development can be traced on several sites in Assynt. On Oldernay, Home refers to the sheeling east of 'Loch na browa' (Loch na Brutaich), suggesting: "... it might be a proper place to erect a new Steading". The sheeling obviously expanded to become the small settlement of Strathcroy which is now on that site. Also on Oldernay, he mentioned a sheeling which was located: "...at the North End of Loch Prestanie on which there is a house steading

occupied by a Man sent to herd the Corn growing thereon". No house was shown on Home's plan, but there are at present traces of 3 buildings and a dry-stone dyke at the northern end of 'Loch Prestanie' (Loch Preas nan Aighean - "the loch of the place of the bushes").

On Clashnessie (Figures 58a, 59 and 60), Home listed 9 sheelings - "...one half or a third of which are annually in Corn". Despite the population here, the highest in Assynt, there is no evidence for excessive colonisation of sheelings. On a small sheeling by the shore (D on Figure 60) known as Imir fada, there are presently remains of 2 buildings and dykes (Plate 68); farther south, on a former sheeling just below the waterfall from which the township takes its name, at the north-western end of Loch an Easain, there are traces of lazy-beds (Figure 60 and Plate 69).

In his notes on the farm of Clashmore, Home mentions: "...Rahoun a fine sheeling in Corn" (Appendix 24), and further states - "A new Steading may be erected at the present Sheeling of Rahoun". This suggestion seems to have been accepted, since there is now a small settlement on Clashmore at Raffin ('Rahoun'). The transformation of sheeling grounds to permanent arable before 1774 is also illustrated on Clashmore by Home's reference to - "Ault-an-roan formerly a sheeling, now conjoin'd to the Infield". The potential for this sort of development was also suggested for Store (Stoer), but with greater difficulties to overcome: "The Sheelings ly scatter'd among the Hills and are very rich

and fertile by toathing but full of Rocks and Stones, and as they ly at too great a distance from the Farm-Houses they are seldom in Corn". Only 2 of the 6 sheelings on Store are really distant from the settlement cluster (Table, Appendix 22), and Oldernay had sheelings under corn at greater distances from the houses, so perhaps the stoniness of the soil was the main obstacle on Store.

Good examples of the development of permanent settlement on sheelings can be seen on the farm of Auchmelvich. The farm is shown in Figure 66 as on John Home's plan of 1774. The only buildings depicted by Home are in the settlement cluster at A, surrounded by the infield: "... the greatest part of which consists of Rocky Baulks so that only about one half can be keept in tillage". Elsewhere are the sheeling patches, of which Home states that those - "... in the Hollows opposite to Torbreck seem to be the most valuable for Corn", referring to the patches along the farm's eastern boundary. On the first O.S. 6" map (Figure 67), the sheeling patches are shown as improved land, sometimes greater in area than in 1774, enclosed with dykes which can still be traced on the ground, and with houses and other buildings proclaiming settlement from at least the end of the 18th century. These crofts or 'hamlets' are named separately on the first 6" map.

One such patch (B on Figures 66 and 67) was described by Home as: "Glananter a bonny Sheeling adjoining Loch-an-oir and a creek of the Sea North from the Farm-Houses". At present, scattered within this former sheeling area, there

are lines of old dry-stone dykes, traces of rigs and ruins of buildings of various ages, plus one or two houses recently or still in use. It seems possible, from the condition and nature of some of the remains, to trace the colonisation of the sheeling, starting perhaps with the building of a small simple structure on the eastern edge of the sheeling (possibly Building F on Figures 69 and 70), which might have served as a shelter, bothy or storehouse. Later, more elaborate buildings with cruck-supported roofs and, later still, gable fireplaces (Buildings A to E on Figures 69 and 70; Plates 80 to 85) suggest permanent settlement. Building E in this grouping is small enough to have been a sheeling bothy, with its adjoining small enclosure (Figure 71 and Plates 81 to 85), but its architecture is suggestive of something more permanent, with a roof supported on a single set of crucks and the walls entirely of dry stone. There are other former sheeling grounds on Auchmelvich which have developed to small settlements with their own names, in particular Alltanabradhan (C on Figures 66 and 67 and Plates 86 and 87), 'Riecairn' or Ruigh a Chairn (D on Figures 66 and 67, Plate 88) and some not named separately on Figure 67.

The farms of Inver and Inver Chirkag (Inverkirkaig) had detached portions at some distance from the main farm and settlement. Inver's detached sheelings, according to Home, yielded double the quantity of corn obtainable from the infields. The detached sheelings of Inver Chirkag were among the most distant in Assynt, one being at least 5½ miles from the main settlement cluster, on the lower slopes

of Suilven. Perhaps this is why there is no mention of them being tilled, although Home noted that they had: "... a pretty good variety of pasture for Goats, Sheep and all sorts of Bestial".

Batachrianan, an inland farm, was rented as a grazing farm by Lt. Alexander Macleod who owned half of Ledmore, where he lived with his family. Batachrianan (Bad a'Ghrianan) was occupied by 2 non-tenant families plus 2 'servants' making altogether 8 inhabitants. Home's plan shows only 2 buildings surrounded by the infields, suggesting inadequate recording of what was actually there. The sheeling patches were no more than two or three hundred yards from the settlement. Home noted one patch: "A Sheeling South of the Houses"; at present, on this sheeling, there are remains of dykes and buildings, indicating again that development of permanent settlement had occurred here, although it had been abandoned by 1875. The colonised sheeling on Batachrianan had at least 4 buildings as well as the enclosures (Figures 74, 75 and 76). One of the buildings appears to have been a small byre (Building S) and Building P may well have been a dwelling, but the ruinous condition of the remains allows little in the way of interpretation of function. It is perhaps possible to say that the increase in population pressure on the land in the late 18th/early 19th century in Assynt must have been great enough to force colonisation of sheelings on even quite small farms such as Batachrianan.

The same cannot be said for the farms along the valley of the Loanan River, from Ledbeg north to the south-eastern

end of Loch Assynt (Figures 77 and 78). The inland farms in this region have their sheelings on either side of the river or within two or three hundred yards of its eastern bank, apart from 2 sheelings on Layn and one on Stronecruby which are more distant and higher up in the hills. These are all major grazing farms and the sheelings would have been important for their grass. Consequently, apart from remains of dykes, there are few traces of buildings on the sheelings. The modern settlements have retained the 1774 locations but with very few buildings and a population which is minute in comparison with that of the time of the Survey.

Kirktown had the largest area of sheelings in Assynt, with a concentration along the southern edge of the township (Figures 78 and 79). On some of these there are remains of dykes and buildings indicating permanent occupation or enclosure. Apart from the Kirk and the Manse, occupied by the sole tenant William Mackenzie, minister of the parish, most of the buildings would have been the houses and byres and sheds of the 32 non-tenants and 11 'servants'. Home obviously admired this farm, although his remarks were not completely complimentary to the sitting tenant: "There is no farm in the height of Assint that can weigh with the above possession if consider'd as a grazing Farm having the best Aspect to the Sun and being one continued Tract of Lime-Stone; The Snow lies less upon it than any of the neighbouring Farms, and if under the management of an industrious and skillfull Tenant might be of double I may safely say triple value to the Proprietor and yield a genteel living to such

a Tacksman after all". The sheelings were obviously well organised, even in 1774. That at A on Figures 79 and 80 has remains of several dry-stone dykes sub-dividing it. Sheeling B is drawn by Home as a sheeling patch of 8.25 acres on his plan of Kirktown, but is listed by him in his notes on the farms as 'Infield'. Perhaps the system was confusing to him on some farms. This sheeling lies in the angle formed by the confluence of the Traligill River and the Allt Poll an Droighinn ('Polandrain') and there are remains of buildings and dykes in the area at present (Figures 80 and 81; Plates 92 and 93). The buildings are not much more than foundations now, but their shape and size suggest that perhaps 2 families could have existed here. The sheeling at C was described by Home as: "Sheelings in three Folds ... along the North side of the Burn of Trarigil ... hanging pretty much Southward". There are also remains of dykes and at least two buildings here and a small river valley to the south on the opposite side of the Traligill is known of old as Ruigh an t-Sagairt - 'the grazing ground of the priest", perhaps indicating some antiquity for this township's association with Church lands. Sheeling D on Kirktown was the largest sheeling ground in Assynt in 1774. It measured 53 acres in area and lay in the triangle between the Traligill River and the Allt a' Bhealaich (NC 27 20). Home describes this patch as: "Sheelings in the Hollow of Glendu mostly arable yielding fine grass". There are no traces of dykes here and the ruined structures scattered around are of a size that would

suggest sheeling bothies or huts rather than permanent dwellings (Plates 94 and 95) and the recent O.S. 1:10,000 map has 'Old Shielings' marked here. It is also likely that some of the limestone caves at the foot of Cnoc nan Uamh here served as shelters for animals, and perhaps humans.

From the foregoing it can be seen that the use of sheeling grounds as arable areas was constantly mentioned by Home, to the extent of comparing them favourably with the infields and in some cases (as at Inver) stating that they yielded: "... double the quantity of the Infields about the Houses". The bringing of sheeling areas into permanent cultivation and settlement was not unique to Assynt. In a survey of the 'shealings' of Banffshire and western Aberdeenshire based on the Gordon Castle Papers, Gaffney (1959) refers to: "These hefting-places made fertile by repeated manuring were the first patches of shealing country to come under cultivation. This was simply an extension of the 'tathing' system used on the home croft by which arable ground was dunged by cattle lying upon it at night. The names are recorded of men who made these 'improvements', herds and hired men who spent a long summer season in the hills and who found the fertility of the cattle-folds of the previous shealing season a sufficient inducement for them to attempt some cultivation.

This stage in shealing development is well exemplified in a plan of the Couglass-side shealings (between Tomintoul and the Lecht pass to Donside) of about the year 1770, on which, though the shealings are still shown as grazing-places

of particular farms, many patches of arable appear. It was tenants themselves or their sub-tenants who first tended to push cultivation up the glens, thereby turning seasonal grazings into permanent crofts, so that the Duke of Gordon's factor could say with some justice that the Corgarff people - and he might equally well have included the Strathavon people - had found it not just desirable but in fact necessary to occupy the Faevait grazings because they had cultivated their own shealings" (Gaffney, 1959, 32-33).

These herds and hired men referred to by Gaffney had their equivalents in the grasskeepers and their families listed by Home on such farms as Torbreck, Little Assint and Filin. These were non-tenants on grazing farms where it would be natural to bring in some of the fertile grazing land to tillage for subsistance initially as families increased in size and where perhaps the existing infield was insufficient. An even better example is the man employed on the farm of Oldernay - "... who moves from one sheeling to another, now living at the remotest Sheeling belonging to the Farm called Prestanie, taking care of the corn growing thereon", Prestanie, which Home notes elsewhere as having a "house steading occupied by a Man sent to herd the corn growing thereon". These 'grasskeepers' and 'Corn herds' are the pinners, pounders or poindlers (Fenton, 1976, 130) of other regions, ideally suited to initiate the settlement of sheeling areas. In another part of Sutherland, similar conclusions were reached by Fairhurst in his study of the region around Rosal, in Strathnaver (Fairhurst, 1968, 141, 163). "It is noticeable

that the lists of settlements in Strath Naver which can be compiled successfully from the early records ... grow longer with time ... Several of the new names appearing on both Pont's and Roy's map are apparently old shieling names, e.g. Dionach Garaidh, 'Stronchergarry', Achargory, and from their location others might be added ... (the place-name element 'arry', 'ory', 'araidh', is from airidh - a summer residence for herdsmen and cattle, a hill pasture, bothan airidhe or taigh airidhe - the shieling (Dwelly, 1977)). It seems only reasonable to suggest that the number of settlements in Strath Naver had been extended since the Middle Ages mainly by the colonisation of shieling grounds and that this process was greatly accelerated in the later eighteenth century". "Looking at the problem as a whole, it is possible to think in terms of a series, commencing with the simple enclosures at the shieling grounds, developing into units of permanent occupation by a single family and subsequently increasing by intakes or amalgamation into 'townships' of the size of Dalharrold with its four families and fifteen acres of arable, but still sharing the common grazings with Rosal. It is appropriate to recall (Miller, 1967) that the gathering of the animals for milking or for safety around the shielings would tend in time to improve the ground by manuring and treading. An area cleared of stones in making an enclosure for a pen might in the process become cultivable and a discrete patch of arable would emerge ... Pressure of population in the late eighteenth century might well have stimulated the colonisation of these discrete units, especially when the potato was beginning to

provide a useful crop for ground of this type".

Home makes frequent reference to the potato being used to plant areas which presumably had previously not been arable. His remarks at Culack are particularly relevant: "These poor people are daily enlarging their Corn Lands by potatoe improvements so that the greatest part of the Grounds within the Dykes will soon be brought into tillage, which will be a great addition to the Corn Land".

In Inverness-shire, on 1st September, 1773, James Boswell noted, in his Journal of a Tour to the Hebrides with Samuel Johnson: "We came to rich green valley, comparatively spreaking, and stopped a while to let our horses rest and eat grass. We soon afterwards came to Auchnasheal, a kind of rural village, a number of cottages being built together, as we saw all along in the Highlands. We passed many miles this day without seeing a house, but only little summer-huts, called shielings ... At Auchnasheal, we sat down on a green turf-seat at the end of a house; they brought us two wooden dishes of milk, which we tasted. One of them was frothed like a syllabub. I saw a woman preparing it with a stick as is used for chocolate, and in the same manner". Auchnasheal, from its name, and the fact that it is described by Boswell as a 'village' in a region which seems otherwise to have only shieling huts, may be another example of the development of settlements in grazing grounds.

The early beginnings of these developments have been discussed by Dodgshon (1980) and Mather (1970, 163-164) noted how Glen Strathfarrar in northern Inverness-shire had

little or no settlement in the Middle Ages: "Gradually, however, population growth in the longer settled better lands resulted in the extension westwards of the agricultural frontier. Such an extension would almost certainly have been by summer shielings from pre-existing farms at first, but by 1589 mention is made of settlement in the "Forrest of Affarick" ... However, by the end of the seventeenth century there was a considerable agricultural population living in the glen, at least as far west as Inchvuilt and slightly beyond. Rentals of the 1690's, although neither complete nor altogether compatible, throw valuable light on the agricultural situation around that period. They strongly imply that the farms of the glen had originated as extensions of low ground farms, and in some cases links still existed. For example, the glen farm of Inchvuilt was connected with the Aird farm of Belladrum, as was Ochteroe with Culbirnie. The exact nature of the association is not clear, but, as has been suggested, it probably originated as that between shieling and farm". Similar developments were noted as taking place in the Lordship of Strathavon (Gaffney, 1960).

These movements did not everywhere proceed smoothly or continuously. There were strictures against such developments, which were not always seen as positive by landowners. Gaffney (1959, 34) notes: "There is for some reason, it is true, the very opposite provision in three Glenlivet tacks of 1767 which obliged the principal tacksmen not to improve or labour any part of the shealing 'at the rive of the Leather' where they and their sub-tenants were to 'sheal as formerly'".

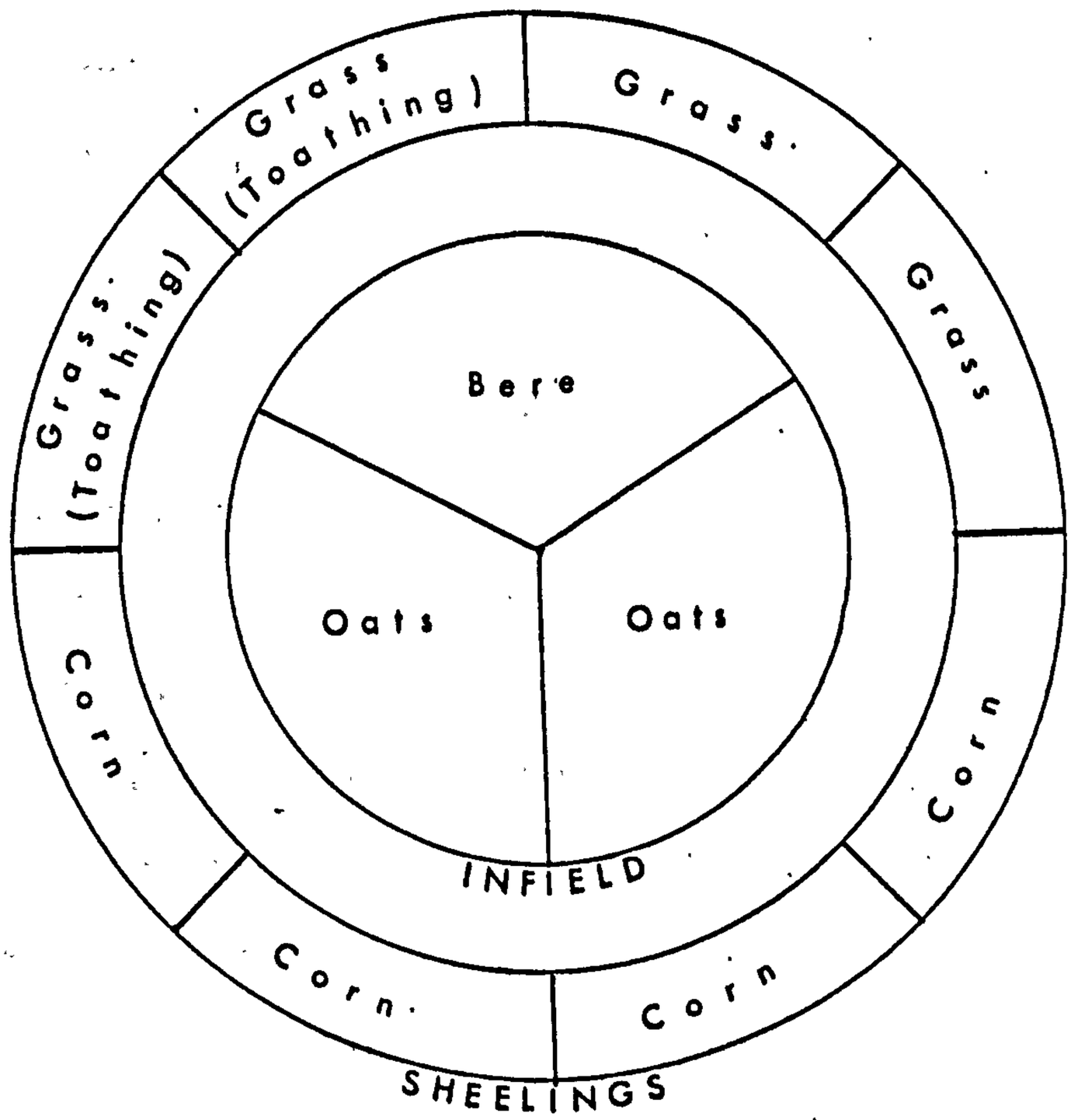
In the Mar and Kellie Muniments in the Scottish Record Office there is a report (SRO/GD 124/17/102/3) from a Mr John Innes, the Earl of Mar's Chamberlain in Aberdeenshire, dated 1712, where, under "Incroachments" complaints of the illegal 'labouring' of sheallings are noted: "... in the first place the (late?) Inverey did labour the sheallings of Glenei (Glen Ey), which were the sheallings in time of the feaw (feu?) that belonged to ane Plough Land called Corymuillie (Corrimulzie) which was feawed (feued?) by Delmoir and now belongs to the Inverey and instead of sheallings hath made ane countrie of it for which (he gets?) a considerable rent yearly and hath removed his sheallings of that land two miles further up - to ane place called Alhinour (Altanour) In the very heart of the forrest and hath built ane stone house lately near to that place and there he lives just now".

The references to some Assynt sheelings being superior to infield is not surprising considering Home's descriptions of the infields (Appendix 24). Inferior ground, rocky baulks and house stances were all included. The impression is given that some of the infields themselves may not have been long in tillage. At Drumsurdland, Home states: "The Corn Lands are full of Baulks with Roots of Trees so that one would be apt to imagine it had been altogether Wood some time ago". At Inver: "The Corn Lands are indeed the poorest soil, and most interjected with Rocks and Baulks, the last is full of Oak Roots, which appears to have been its Original production".

Perhaps these were less successfully colonised grazing areas from an earlier period. We may ask why so much poor land was listed as 'infield'. The statistics are unrealistic unless there was some value in having as much infield Listed as possible. Could infield holdings have been related in some way to the number of animals allowed on the grazings? This was one way in which 'souming' was controlled in some parts of the Highlands (see 10.4 below) and, to a certain extent, the infield itself was dependent on the number of animals from which dung would be available. It is difficult to say for Assynt. In referring to differing proportions of rent paid by Assynt tenants, Adam (1960, 1) states: "It would be unwise to assume that the arable land was shared in precisely these proportions. Souming for cattle was also involved". Perhaps so. But nowhere in the Survey does Home mention souming. If a system existed, he was remiss in not referring to it.

Individually, only 41 sheelings (about 16%) were listed by Home as being in corn or tillage, but this can only be an absolute minimum since he appears to have been inconsistent in this as in other details of the Assynt settlement and economy. He also makes reference to the soil on the sheelings having been made rich and fertile by 'toathing' (e.g. at Store, Kirktown and Oldernay). The word 'tathing' was used by Gaffney (1959), quoted above, in reference to Strathavon, and these words were used in other regions of Scotland in association with the folding of cattle on outfield land which had been lying fallow and was about to be tilled again. In

East Lothian in the 18th century, the outfield was divided into 'brakes' - "... three of these were cropped with oats, and the remainder were left in what we call ley, that is, in pasture, consisting of the spontaneous growth of grass ... This outfield pasture was kept for the live stock upon the farm, which during the summer were folded or what we call toathed upon the brake that was next in rotation for being broken up" (Buchan-Hepburn, 1794, 49). The situation was well explained for Aberdeenshire in the 18th century by Wilson (1902), who showed that half of the outfield was always under grass and the other half under oats. This modified form of his infield/outfield cycle might be applicable to Assynt in 1774:



Whatever the situation, or Home's lack of clear explanation, the impression is undoubtedly given that we are dealing here with outfield under a different name, or outfield which has perhaps remained at a simpler or more primitive level of organisation. In an interesting discussion of settlements with infield and outfield systems in Western and Central Europe, Uhlig (1961) made the suggestion that a Feldgraswirtschaft system existed originally with no permanent arable, but rather a constantly shifting relationship of arable with grazing. "It is likely, that the turn from shifting to permanent arable practices led to a sub-division of the former greater, irregular field-plots into the open "Langstreifen". We must consider, however, that the idea of a former general shifting practice implies also, that those field-plots, which we call now the "outfield", are thus practically older than the important infield of the next phase!" (Uhlig, 1961, 305). In a study of the agrarian history of Scandinavia, Wührer (1935, 91) noted: "Ausserhalb der Tofte (Infield) lag die Udmark, das Aussenland, das weiter abgelegen war und anfänglich sicher als gemeinsame Weide benutzt wurde. Mit zunehmender Bevölkerung wurde auch dies unter den Pflug genommen ("Beyond the Tofte (Infield) lay the Udmark, the 'Outland' (outfield?), which was farther away and certainly used originally as common pasture. With increasing population this too came under the plough").

Examining the function and origins of the Hebridean Black House, Werner Kissling (1943, 90) also suggested that

the fixed house stance with adjacent arable might have been a later development, albeit adjusted to the somewhat different Hebridean environment: "These house clusters may be regarded as the nuclei of the townlands. At an earlier phase, however, these old communities may have "shifted anchorage" from the mountain pastures to the plains. Such a shift would have rendered necessary the practice of transhumance, for although the sandy plains provided ample pasturage, their productivity could only be maintained by alternation with the richer mountain pastures, often at a considerable distance from the arable ... It is now clear in retrospect that the original arrangement, according to which the animals were taken under the family roof, was perfectly adapted to the people's mode of life in shieling times. It had real merits in its time and place, and custom rather than poverty had made it almost a necessity. Being used essentially as winter habitation, the Black House did not, in former times, need to fulfill the requirements of a complete farmstead. Because of the practice of doing most of the dairy work in the summer pastures in the hills, the dairy was naturally situated at the shielings. Moreover, the crofter with two dwellings on his hands might naturally be reluctant to undertake the upkeep of an independent shelter for the animals. One is, therefore, led to regard the original lay-out and fundamental feature of the Black House, which rendered it little more than a "kitchen-byre", as logically connected with the shieling system and depending on it". Here again there is the idea of a shifting arable

and grazing system pre-dating the fixed settlement and infield association known from later field remains and documentary evidence.

The possibility that outfield may have developed only from the 15th century is discussed by Dodgshon (1973, 15-16), who quotes Barrow (1962) - "... there is no indication in early documents of infield and outfield cultivation". Dodgshon notes the earliest reference to "le Owtfeld de la Kyrktown de Kerymwr" from the Register of the Great Seal for 1483. It is possibly logical to suggest that 'infield' and 'outfield' could only have existed together, in a complementary sense, as Dodgshon explains: "In suggesting that the main period of infield-outfield development may have been the fifteenth, sixteenth and seventeenth centuries, it is not meant that infield and outfield both physically developed during this period, for infield, as the initial cultivated area of the town, could have existed long before the start of the fifteenth century. However, it is doubtful whether the term infield existed before this point since infield and outfield are terms set in contradistinction to each other, meaning that the term infield could not reasonably exist without the term outfield which, in turn, had to await the physical appearance of outfield on the ground. It is here suggested that the period from the fifteenth to the seventeenth century may have seen the general emergence of outfield on the ground, and, therefore, the introduction of the terms infield and outfield". This does not detract from the possible primacy of a system of intermixed and shifting

arable and grazing which only later came to be labelled 'outfield' and which perhaps was surviving in a corrupt and poorly understood form in Assynt at the time of John Home's Survey.

It was noted in 5.5 above that crofters, unlike full tenants, had no share in the outfield on Lochtayside and in other parts of the Highlands. The same could be said for the occupants of Badinimban and other non-tenants of possible crofter/pendicler status in Assynt. This could be a further indication that these outfields were at some earlier stage functioning as common grazings in which only the tenants would have the right to pasture their animals.

Home appears to have been describing a system that was not exactly outfield, since some of the arable areas are quite far from the main settlements, and not exactly a shieling system, since many of the 'sheelings' are alongside the infields and under crops. Miller (1967, 200) has no doubts: "We must conclude, therefore, that many of the Assynt shielings were virtually outfield, and this is why an area with so little land rated as infield carried such a high population". It is surprising that Home, who must have had some knowledge of farms and land-holding systems in other regions of Scotland, does not explain more of this state of affairs, does not mention the possible similarity between Assynt sheelings and outfield organisation elsewhere, and does not make clear whether the words used to describe the system are his own or taken from local usage. Reviewing Adam's study of Home's Survey, Gaffney (1962, 149) states: "What we see is a shieling system in decay, many of the

grazings having been incorporated in the inbye land, and a fair proportion of them being under cultivation". This is to oversimplify the situation; some of the cultivated sheeling plots, in terms of sheer distance, could hardly be regarded as "incorporated in the inbye land". Some older system of 'field/grass economy", expanded, accelerated and perhaps distorted by the needs of a rapidly-growing population, is suggested here. Gaffney also mentions the evidence of the first O.S. maps for sheelings becoming settlements in the century after 1774, and comes much closer to answering the problem with the question: "Was what happened in those hundred years simply the continuation of a process which had gone on for centuries and which would explain the proximity to the farms of what were nominally shielings?" In a unique way, the sheeling system in Assynt in 1774 may have preserved something of a very much older land-working organisation.

9.5 Assynt Mills

Timothy Pont's map of Assynt (Figure 52) shows the early location of one of the main mills - 'ye mill' near the foot of the Allt a'Chalda Beag. The later mill here was on the Allt a'Chalda Mor, on Ederahalda (Eadair da choille dur - 'between two woody streams'), although this might simply have been a wrong placing of the mill site on the part of Pont.

In his study of Home's Survey, Adam (1960, 93) publishes the Factor's Accounts for Assynt, 1764-1773, and in the notes appended there is a reference to William, 18th Earl of Sutherland, having 4 mills erected in Assynt at Aldnuagh (Aultnachie), Culag, Clashnessie and Ederahalda. The mills at Aultnachie and Ederahalda are noted in the List of Inhabitants of the Parish of Assint, November, 1774, but they are not mentioned by Home in the Survey and no mills are noted on these farms, so they could have gone out of use before 1774, and are so marked on Figure 57. Their omission could, however, have been simply another oversight on the part of John Home. The mills at Clashnessie and Culack are mentioned and shown on the plans, as are 3 other mills at Oldernay, Glenlirag and Stroncruby, which must have been erected between 1759 and the time of Home's Survey. The mill at Clashnessie exists as a ruin where the Amhain Clais an Eas enters Clashnessie Bay (Plate 62).

Details of the mills and their occupants in 1774 are as follows:

Oldernay	-	Donald MacHomash, miller, no wife, 4 children, no share in farm
Clashnessie	-	John McLeod, miller, wife, 3 children, 3 'servants', no share in farm
Culack	-	Angus Bethune, miller, wife, 2 children, 1 'servant', no share in farm
Stroncruby	-	David Ross, miller, wife, 3 children, no 'servants' and a 5-merk (one thirty-second) share in the farm with 9 other tenants

Glenlirag - Roderick Mackenzie, miller, wife, 2 children, 4 'servants' and a 40-merk (one third) share, the largest, with 13 other tenants.

There are obviously some major differences in the status of the millers listed here. The 'normal' system would have been for the miller to be installed by the landlord and to be allocated a 'mill croft' as arable land. This is not stated for any of the Assynt mills, nor is it clear how the millers who were not tenants fitted into the existing system, how they were allocated farming land, for example. Some were obviously important tenants, like Roderick Mackenzie in Glenlirag, and his 'servants' could obviously have been employed in working the land or assisting in the mill. But David Ross in Stroncruby had no 'servants' and John McLeod in Clashnessie had 3 'servants' and no share in the farm. Home's lack of information or explanation here is frustrating.

The mills appear to have been of the horizontal type, with the mill-wheel or paddle revolving horizontally in a basin in the floor through which the water flowed in a lade from a nearby stream. The paddle was linked by a vertical shaft directly to the upper of the two millstones. It has been normal practice to suggest Scandinavian influence for the origins of these mills in the north-west, but it should be noted that Lucas (1958) mentions mills of this type as early as the 3rd century AD in Ireland and, more recently, dendrochronological dates for 13 Irish horizontal mills have produced a time range of 630 to 930 AD (Baillie, 1982). On this evidence, the possibility that influences other than

Scandinavian were responsible for the diffusion of the idea of the horizontal mill through Western Britain must obviously be seriously considered.

A good example of this form of mill is a ruin on the burn running down to Port Alltan na Bradhan on Achmelvich Bay (Figure 85 and Plates 96 to 99). The burn formed the boundary between the townships of Auchmelvich and Clachtoll, and the ruin is just on the Clachtoll side of the burn. No mill is mentioned or depicted here by John Home and, since the 1875 6" O.S. map shows the building shaded and therefore presumably roofed, it is possibly post-1774 in date, but nevertheless typical of the types of mill in use in Assynt in 1774. The photographs show some details of structure and surviving millstones.

The distribution of mills (Figure 57) in 1774 shows a bias to the west and north, if the Aultnachie and Ederahalda mills were disused, with only Stroncruby servicing the whole of the east and south-east of the parish. It is this great gap in the distribution, at a time when the parish population was obviously increasing, that makes the non-listing of these two mills seem more like an error of Home's. The system of thirling to mills and payment of multures and fines (discussed in some detail in 6.5 above) was beset with inconvenience to tenants in most regions. In the Report on the Setting of the Rental in Assynt for 1775 (Adam, 1960, 66), the thirling and mill rents were replaced by a 'dry multure' payment. In the Report, Captain Sutherland stated:

"The reason for setting the Milns on Dry Multure was that the tenants in general complained of the great inconveniences they suffered by the distance of the Milns they were thirled to, and the Badness of the Roads; and willingly submitted to pay three-quarters of Dry Multure out of every £5 of rent, so as to have the liberty of Grinding where most convenient to them, rather than be tyed down to the Milns they were formerly asstricted to".

CHAPTER TEN

LOCHTAYSIDE AND ASSYNT IN THE LATER 18th CENTURY: A COMPARISON

10.1 Geography

Lochtayside is the setting for one of Scotland's largest lochs, its land area from northern to southern watershed covering about 50,000 Imperial acres or 20,000 hectares; Assynt is a coastal parish with an area, including lochs as large as Loch Assynt, of 110,000 Imperial acres or 44,500 hectares. The watersheds to north and south are the boundaries and highest points of Lochtayside, whereas Assynt has a mountain boundary only on the eastern margin but several major mountains within its overall area. The height above loch level to north and south is the effective economic and settlement boundary on Lochtayside, but the much-fragmented and mountainous interior of Assynt effectively prevents any straightforward boundaries being set.

The coastal situation and penetration of sea lochs into the parish of Assynt keep the region free of climatic extremes, particularly frost and snow, which are rarely severe, but the rainfall is high, with autumn and winter maximum. Lochtayside has a lower rainfall average but snow lasts longer, with height again an important parameter. The sea has provided the population of Assynt with an alternative means of subsistence and even the inland farms probably shared in the catches; the fishing on Loch Tay appears to have been more restricted, less egalitarian, the privilege of the landowners with rights set out in charters over centuries.

Geographically, or perhaps better geomorphologically speaking, the greatest difference between Assynt and Lochtayside is the degree of fragmentation of the economic and settlement area of the former. Lochtayside agriculture and settlement are limited by height, with increasing steepness, and soil quality deteriorating with distance above the loch edge; but within these limits the land is relatively smooth and unbroken, apart from burns, streams and tributary valleys to the loch, and patches of wet or over-acid land. Assynt is broken up by the nature of its Lewisian gneiss geology, plucked and scoured by glaciation into a hummocky terrain with hundreds of lochs and lochans interlinked by a network of streams, burns and bogs interrupted with many outcrops of bare rock - the "rocky baulks", "stony baulks" and "interjected ridges" of John Home's description. This landscape effectively excluded land-working with the plough apart from a few farms which were using it by the 1790's, and the cas-chrom was the main instrument of tillage. Nowhere was this implement mentioned in the general documentary evidence for agriculture in the Central Highlands, and the use of terms such as plough, ploughland or horsegang, common in the history of Perthshire for centuries, would have been just as incongruous in Assynt. This makes the references to 'davochs' and 'oxgates' in early Assynt charters and in the Old Statistical Account seem more like fiscal or administrative divisions, derived from regions where ploughing was more common, than indications of actual land-use.

Lochtayside lies between latitude 56°25' and 56°40' north, Assynt is about 125 miles farther north-west, between 58° and 58°20' north.

10.2 History

In dealing with such small areas, it is difficult to assess the roll of historical factors in their development. These factors for the Highlands in general, and particularly their effect on agricultural and settlement changes in the 18th century, are discussed in Chapter 3. The subject is introduced here simply to indicate that, in terms of ownership of land, there were differences between the two regions over about 500 years. From the time of Hugh Freskin and the first Earls of Sutherland in the 12th and 13th centuries Assynt appears to have been a single unit, in the hands of the MacNicol, Macleod, Mackenzie and finally Sutherland families (Chapter 7.2). By comparison, Lochtayside belonged to various landowners, both religious and secular, in many small holdings throughout the medieval and post-medieval periods (Chapter 4.2), being acquired only slowly and piece-meal, but undoubtedly determinedly, by the Campbells of Glenorchy/Breadalbane in the 3 centuries up to the 1769 Survey. This difference of ownership is stated here in order to put forward the idea that the economic and social development of an area unified under the policies of one landowner should perhaps be more positive and rapid than in a region with many, possibly rival, landlords. On the evidence of the later 18th century Surveys, the difference in development is obvious, but it was Lochtayside that was

the more advanced area - in roads, bridges, access and as will be discussed here, some aspects of agriculture and settlement. The idea of a single landowner and policy of development being superior to multiple ownership cannot in general be denied, but in Assynt the overwhelming factor against development was the difficult physical environment.

10.3 Population

The statistics for comparison between the two regions are listed in the adjoining table. As in many elements of the economic and settlement pattern, it is difficult to obtain completely accurate figures. There were three different surveyors involved and many inconsistencies in the type and quality of information supplied. Population figures for Lochtayside are based on a calculation of the number of tenants x 6, an average family size suggested by some of the tenants themselves in a 1770 petition (McArthur, 1936, xxxi). The Assynt figures are from a "List of the Inhabitants of the Parish of Assint, November, 1774". The Lochtayside figure omits all but a few references to cotters, crofters and pendiclers and it must be assumed that this class of occupant was covered by Home's non-tenants and "servants" in Assynt. It is known that they existed in quite large numbers on many townships in the later 18th century, but they were obviously not important enough in the eyes of some land surveyors to merit more than the briefest mention. If Pennant's population estimate for Lochtayside (5.1 above) of 2986 is an over-estimate which can only be corrected

	Lochtayside (1769)	Assynt (1774-75)
Area (Imperial acres)	50,000 acres (without Loch Tay)	110,000 acres
Population	2148	1718
No. of farm townships	99	42
Population per farm	21.7	40.9 53.5 (26 joint-tenancy farms)
Av. no. tenants per farm	3.6	6.3 9.5 (26 joint-tenancy farms)
Av. no. settlement clusters per farm	2.46 (sample of 54 farms)	1.48 (sample of 29 farms)
Av. population per cluster	8.5	27.7 34.9 (19 joint-tenancy farms)
Av. buildings per farm	15.2	14.1 16.3 (19 joint-tenancy farms)
Av. buildings per cluster	5.83	9.4 11.0 (19 joint-tenancy farms)
Total infield (Scots acres)	2345	2202
Total outfield ('sheelings' in Assynt)	1715	1506
Av. infield per farm (Scots acres)	23.68	52.42 52.4 (26 joint-tenancy farms)
Av. outfield per farm ('sheelings' in Assynt) in Scots acres	17.32	35.85 39.40 (26 joint-tenancy farms)
Av. infield per tenant (Scots acres)	6.40	5.72 5.52 (26 joint-tenancy farms)
Av. outfield/'sheelings' per tenant (Scots acres)	4.8	5.73 4.14 (26 joint-tenancy farms)
Av. size of farm (Scots acres)	390	2144

by assuming that the villages of Kenmore and Killin were included, then the figures from Farquharson and McArthur should be regarded as an under-estimate since little attention appears to have been paid to non-tenant population. A figure of about 2500 would probably have been more realistic. The figures for Assynt may be closer to accuracy, but an uneasiness is created by Home's references to unanswered questions because "most of the people were employed at the Fishings when the Survey was made". The relative proportion between the two areas has been accepted as reasonably accurate.

The numbers of inhabitants per farm township emphasise the overcrowding on Assynt. Two figures are shown for most Assynt statistics in the table: the first is for all farms in the parish - 'tacksman', single-tenant and joint-tenant, the second is for the 26 joint-tenancy farms alone (19 in the sample for settlement-cluster analysis) since they more nearly correspond with the Lochtayside joint-tenancy farms. A glance at Figures 9 and 56 shows how the distribution of population differed. The settlement-clusters of Lochtayside were fairly evenly spread across the particular township lands, the major limitation being height or possibly steepness; in Assynt the clusters were in most cases the concentration of the whole township's population in one limited area, where the broken terrain would allow settlement without occupying scarce arable land. This concentration in Assynt is emphasised by the figures for population per cluster, particularly the joint-tenancies, with a proportion greater than Lochtayside by about 4 to 1. The topic is illustrated

perfectly in Figures 16 and 59, the townships of Blarliargan on Lochtayside and Clashnessie in Assynt. Clashnessie had 15 tenants and a total population of 103, the highest in Assynt; Blarliargan had the largest number of tenants (10) and presumably the highest population (60 if x 6, but probably more, considering unlisted cotters, etc.) on Lochtayside. Plans show a large shapeless grouping in one location on Clashnessie, but 6 small clusters relatively evenly spaced across the arable area of Blarliargan.

10.4 Tenancies and Landholdings

Leaving aside the few crofter and pendicler holdings on South Lochtayside amounting to 3.5 merklands, there were 97.25 merks or merklands spread over 52 farm-townships (Farquharson omits merk or merkland valuation entirely for the north side). This averages out at 1.87 merks per farm or 0.55 merks per tenant. In Assynt, 42 farms had a total valuation of 3830 merks, giving an average of 91 merks per farm or 14.5 merks per tenant overall, but taking the 26 joint-tenancy farms alone the average becomes 94 merks per farm or 9.9 merks per tenant. There appears to be no basis for comparison here since the merks on South Lochtayside apparently have a quite different value from the merks in Assynt. Adam (1960, 64-65) published the Rental of Assynt, as set on 15th May, 1775, and this shows a conversion of the old rent in merks into £.s.d. sterling per 5 merks (Appendix 13). But the 5 merk conversion varies from farm to farm, from £1.3.1d. per 5 merks on Unapool to 12/9d. per

5 merks on Inver. Thus the 200-merk farm of Achmore had a conversion of 15/- per 5 merks and paid £30 rent after 1775, whereas the other 200-merk farm in Assynt, Ledbeg, had a conversion of 13/- and paid £26. By comparison the two 4-merk farms on South Lochtayside, Callelochane and Portbane paid £29.10/- and £29 rent respectively in 1769. The quantity of infield per merkland is also distorted by the unusually high valuation of Assynt, being 0.575 acres of infield per merk as against 10.7 acres per merk on South Lochtayside.

The size of holding on Lochtayside can be calculated as an average, but is less easy to discern when dealing with individual farms. It has been assumed that farm township shares were equal, that is 8 tenants having 1/8 each, but this is unknown. An argument against this assumption is shown by Farquharson's references to, for instance, Ballimenoch: "Ballimenoch possessed by Hugh Christy 1/2 Janet Fisher and Mary Christy 1/4 each"; on Ardvoile: "In Ardvoile are two ploughs. The upper is possess'd by Pat Haggard 1/2 and Malcolm McDugall and John McDiarmid 1/4 each. The lower part is possess'd by Archd. Dore, Duncan Brown and Duncan Mcormick each 1/3". On Ballemore the 2 ploughs were divided among 6 tenants - 1/2, 1/3, 1/3, 1/3, 1/4, 1/4. On Blarliargan the 10 tenants had, according to Farquharson, "each a horsegang"; at 4 horsegangs to the plough this meant that Blarliargan was a $2\frac{1}{2}$-plough land and each tenant had 1/4 share. Etramuckie had 9 tenants - "each a horsegang", meaning a $2\frac{1}{4}$-plough land in which each had 1/4 share.

On Wester Kuiltyrie there were 6 tenants, 2 with 2 horsegangs and 4 with 1 horsegang each, making a 2-plough land divided 1/4, 1/4, 1/8, 1/8, 1/8, 1/8. Easter Kuiltyrie had 7 horsegangs equally shared. These 7 farms are the only ones out of 47 on the north side of Loch Tay where John Farquharson notes the division of the land. John McArthur makes no mention of this at all for the south side.

From the little information Farquharson did list on shares it would seem that the divisions were not greatly different. It is easier to see from the division of the merks of rent payable in Assynt how the farms there were divided (Appendix 12 and 13a). If the correlation of rent with shares in the farm land can be accepted then some joint-tenants possessed extremely small areas of arable and sheelings, although we do not know how these holdings were organised in the working of the land and sharing of the crop. Adam (1960) noted, for example, two men who lived with their families and servants on Reintraid, without shares in the farm, according to the 1774 List of Inhabitants, but who, in the 1775 Rental, were shown as having a 10-merk (1/12) share in the neighbouring farm of Unapool. This may have been the case with other tenants but information is missing.

The viability of the smaller size of holding is even more doubtful in the face of John Home's description of much of the Assynt infield being broken, stony, rocky and including the stances of the houses (Appendix 24). The major difference between the two regions here is that while the Assynt population amounted to only about 80% of that on Lochtayside

(or a little less if we allow for more unlisted non-tenants on Lochtayside), the Lochtayside inhabitants were spread over more than twice as many townships and had larger and probably somewhat better quality arable holdings. 'Fragmented' has been taken to describe the Assynt landscape; many of its tenants' holdings in 1774 could be described as 'fragmentary'.

The overall farm size between Lochtayside and Assynt varied in a ratio of about 1:5.5, but again this has to be qualified by noting that the Assynt total includes large areas of lochs, lochans and bogs. On Lochtayside the shielings were above the head dykes and mostly well away from the arable land and settlements. In Assynt the 'sheelings' were often alongside the infield and at no great distance from the settlements. They had become the outfield in a region where that word was not once used by the surveyor. The boundary of the Lochtayside farms was the lochside or the uphill head dyke, beyond which lay the common moor and grazings. Assynt farms were separated from their neighbours by dykes which were not head dykes because they did not form boundaries of height, but rather enclosing dykes within which all the types of land of the township lay - infield, 'sheelings', rough moor, grazings and waste land. The 'sheelings' and grazings within each township were no longer 'common' in the Lochtayside sense, but had become particular to the individual tenants and their shares, perhaps as a result of colonising the grazings for arable (see Chapter 9.4). It had been suggested above (9.4) that a reason for having as big an infield acreage as possible on the records

(including rocky baulks, stony areas, house stances, etc.), might have been due to a souming system in which the number of animals allowed on the grazings was controlled by the amount of infield held by tenants. But no souming is mentioned by John Home and if such a system existed, it too may gradually have been discontinued with the colonisation and walling-off of the 'sheelings'.

The possibility that some of the Lochtayside farms were still held run-rig in 1769 has been mentioned (5.4 above), but there is no definite evidence that this was so. No mention of the system was made by either Farquharson or McArthur, and the reference to run-rig in the letter to the Earl of Breadalbane from his Argyll Chamberlain in 1783, quoted in 5.4 above, could be applicable only to Argyllshire. We know that true run-rig survived as late as the 19th century in, e.g. Arran, where the description from Headrick (1807), quoted in 5.4 above, could apply to many parts of the Highlands half a century or more earlier. Farquharson says of Ballemore: "There are some outfields common to the whole farm and what is still more against improvement one person eats the grass of the field among the firs by the lochside and another reaps the corn". Of Tommachrochar he writes: "The whole outfields except what marked M on the plan (a small piece 0.85 acres in area out of a total 30.5 acres) are common". These references are to outfields, but run-rig might still have existed among infield holdings.

In Assynt, Home mentions run-rig on only two farms. At Kirktown, the Glebe lands were said to be "... formerly in Run Ridge", other areas of infield lay "...partly in Run Ridge with each other" and another area "... said to be in Run Ridge". Home goes on to say that, as certain areas of infield - "... are presently let to the Parson and have been let to his predecessors these distinctions have not been much attended to". Mackenzie, the minister, was sole tenant of Kirktown, but there were 8 other non-tenant families in the township who, with 'servants', amounted to 35 inhabitants. It may be that the minister, by 1774, held his infield in one piece while the other families held some run-rig. On Loch Beanoch, Home notes: "This farm is occupied by four Tacksman (sic) who have it Run-Ridge amongst them". From the List of Inhabitants of 1774 and the Rental of 1775 (Adam, 1960, 68-88) it can be seen that Loch Beanoch had in fact 5 tenants (not 'Tacksmen', but Home was not very sure of this distinction) who had their shares of the rental as - 1/4, 1/4, 1/5, 3/20, 3/20. It does not seem possible that run-rig survived only on these two farms, but it may have been disappearing gradually in Assynt as a whole, in face of the move to better arable areas on the sheelings which were possibly never held in run-rig.

Another interesting trend in Assynt which cannot be shown for Lochtayside was the change to joint-tenancy farms. A comparison of the Rentals for 1766 and 1775 (Adam, 1960, 66-7) shows that in 1766 there were 27 single-tenant or

tacksman farms and 15 joint-tenancy farms; in 1775 there were only 16 single-tenant farms, but 26 joint-tenancy farms. In 9 years 11 farms had become multiple-tenancy townships, an increase by 73%. In 1766, 10 coastal farms were joint-tenancy, by 1775 this had increased to 17, 5 remaining single-tenanted. Of the 20 inland farms, 15 were single-tenanted and 5 joint-tenanted in 1766; 11 single and 9 joint in 1775. The increase in joint-tenancy farms on the coast again emphasises the difference between coastal and inland townships - the coastal farms having less land and a larger population. A glance at Appendix 10 will show that many Lochtayside farms had become single-tenanted by 1822. But this was in the long term. The figures for the Acharn division in 1799, 20 years after the Survey, show that some farms retained their former number of tenants, others had increased, but a few farms had joined together (e.g. Lungloman, Croftmartaig and Acharn, all divided into 'Easter' and 'Wester' in 1769) thus reversing the earlier 'town-splitting' process. Eventually Assynt would develop into an area of single-tenant farms with the coming of sheep, but in the difficult years of the 1770's population was still growing and holdings were being even further sub-divided.

10.5 Settlement Pattern and Remains

Figures 9 and 56 demonstrate the major difference between the settlement patterns of Lochtayside and Assynt in 1769 and 1774. On Lochtayside there were usually two,

three, four or more settlement clusters scattered across the farm township. In Assynt, a single cluster was usually located on a corner of the township, off the better land, although the stances of the houses themselves were included as 'infield' (Appendix 24). Some farms had more than one cluster, but of the sample of 29 farms studied (Appendices 18 and 19), 20 had only one settlement. This difference in pattern is further emphasised by the number of inhabitants per cluster, with Assynt having four times as many per joint-tenancy cluster as Lochtayside (see Table in this chapter). As might be expected, the difference is also reflected in the number of buildings per cluster, almost twice as many in the Assynt joint-tenancy farms as on Lochtayside. On Clashnessie, the 25 buildings shown on Home's plan (Figure 58a) hardly seem adequate (one is the mill) for the 103 inhabitants, especially if Home was including non-dwellings. This underlines an important difference in the representation of houses between the two areas. Both Farquharson and McArthur show various sizes of rectangles as buildings on Lochtayside so that a larger size of building, perhaps a long house or byre-dwelling, might be shown beside some smaller structures. Home's very small rectangles do not vary much in size and seem to be more indications of buildings rather than attempts to show size and orientation.

The remains of settlements are not easy to interpret in terms of survivals from the time of the two surveys. The situation is somewhat better on Lochtayside, where many

clusters appear to have been deserted in the 19th century with the move towards single-tenant farms, and where some sites have the same orientation and some buildings appear to be the same ones (at least in the lower part of their structures) as shown on the plans of 1769 (e.g. Figures 30-31 and 38-40). Other Lochtayside sites have some buildings surviving on the locations of 1769 clusters, but with different orientations, and other structures have disappeared completely. In Assynt, after the end of the 18th century and with the appearance of sheep in large numbers, some settlements were abandoned and not re-used, while others eventually developed into crofting townships. On the coastal sites occupation has usually been continuous since 1774 and remains are difficult to identify since ruins have often been used in the building of more recent structures and old buildings have been much altered. Occasionally, what seems to be a much older building has survived as a byre or store or some other form of outhouse, no doubt re-built to some extent, but appearing still to embody some earlier form of vernacular architecture (see photographs). The problem arises in trying to equate them with Home's buildings in terms of size and orientation, and again this depends on whether his symbols for houses are meant to be accurate in dimensions and location.

The remains themselves do not differ much in terms of construction: one dry-stone ruin, consisting perhaps of only two or three courses of foundations, looks very much like another; the building material would of course vary

according to local geology. One outstanding feature, however, is length. There appear to have been many more long buildings, whether or not sub-divided internally, on Lochtayside than in Assynt. This is based on field remains rather than on the representations on the plans, with their inherent uncertainty, so that the differences may not necessarily date exactly to the periods of the surveys, but perhaps show a general trend. The table at Appendix 26 shows some comparative building sizes. Measurements in Assynt were mainly of buildings in areas that had been later deserted - for example some inland settlement clusters or former colonised sheelings, but even where some remains survive in presently settled areas, they do not contradict the trend. There are several sites on Lochtayside where the idea of a tenant living in a long house or byre-dwelling with associated smaller buildings is supported by Farquharson's or McArthur's plans and by field remains. The pattern is less easy to see in Assynt, perhaps because many byres and dwellings were already separate by the time of the Survey, or because the elements of long house, outhouses, cotts and yards are less clearly portrayed on Home's plans.

10.6 Conclusions

There are obvious differences between the two regions, but it should also be observed that the information from the two Surveys varies in consistency and quality. On Lochtayside there are differences in the information supplied as between the two surveyors. Farquharson on the north side makes no mention of stock, says little about

crofters and cotters, and his symbols for buildings are sometimes solid black, sometimes in outline only, without explanation. He does occasionally refer to the division of holdings but ignores rentals and merkland figures. McArthur on the south side has more to say about crofters, pendiclers, cotters and their holdings; he lists the merklands of each farm and the ploughs as well as the number of animals per farm. His symbols, sizes and orientations of buildings seem to be more accurate than Farquharson but, unlike the latter, he does not make individual comments on the farms and the quality of their land nor does he give suggestions for improvement. Home, in Assynt, made no mention of outfield, although the sheelings appear to have been worked as outfield areas elsewhere. He lists no crofters or cotters, but they may have been among the many non-tenant families on the Assynt townships. The symbols for buildings on Home's plans are very small and it is difficult to know whether they were accurately placed and orientated. It is therefore difficult to make exact comparisons between the two regions and certain assumptions have had to be made.

Environmental differences seem to be the major point of contrast between the two regions and these are reflected in the agriculture and settlement patterns. Assynt was tilled almost entirely by the cas chrom, whereas the plough was the main implement on Lochtayside. The infield figures for Lochtayside seem straightforward enough, but those for Assynt are unrealistic when, in Home's own words, much of the land so classified was unworkable. In general, the great

fragmentation of shares in each township in Assynt (Appendix 13a) can only be a factor of an over-large population and the fragmentation of the land itself. The shielings of Lochtayside beyond the head dyke appear to have been still commonly held in 1769, while the 'sheelings' of Assynt had become particular, were divided among the tenants, and were split between grazing and arable functions. The move towards more joint-tenancy farms in Assynt between 1766 and 1775 was not parallelled on Lochtayside, where the population pressure was perhaps not so great. It can be said in summary that there was a greater density of population per areal unit in Assynt than on Lochtayside and that the Assynt population was concentrated in larger clusters, whereas the Lochtayside settlement cluster was a smaller unit but there were more of them on each farm.

Matching the documentary evidence with the field remains was not possible in many cases, because of changes in the past 200 years. This is one of the major problems of abstracting information from what was after all a 'still picture', represented by the two Surveys, from a period in which the settlement and agricultural patterns were not static. On Lochtayside the townships would soon be merging and there would be fewer tenants. In Assynt the pattern of one or two large concentrations of population on each township in 1774 was already changing as people moved to colonised sheelings, dispersing into smaller groupings. This in itself was temporary - the major change was already heralded by Captain Sutherland's interest in sheep in 1775.

CHAPTER ELEVEN

PRE-IMPROVEMENT AND PRE-CLEARANCE SETTLEMENTS IN THE SCOTTISH HIGHLANDS: SOME COMPARANDA

11.1 Lix, Glendochart, Perthshire

The lands of Lix in Glendochart lie about 3 miles west of the village of Killin and the western end of Loch Tay. Early mention of the land indicates that it was a small barony in late- to post-medieval times and Fairhurst (1969, 161) has suggested that an early form of the name, Lik, before the later Licks, Lycks, Leeks, Leaks and Lix, could represent a single unit which was later split into 3 divisions. The northern boundary of Lix is the River Dochart, and the lands run back southwards from the river for about 3 miles rising to the watershed with Loch Earn (Figure 86).

The Barony of Lix was the property of the Earls of Perth from 1684 to 1745, when it was declared a Forfeited Estate. It was acquired by the 3rd Earl of Breadalbane in 1766-7, when he also acquired the forfeited lands of Fernan on Lochtayside (see Chapter 4.4 above). The Commissioners for the Forfeited Estates had the Lix lands surveyed by William Cockburn in 1755 and part of his plan is shown at Figure 86. Fairhurst (1969, 169) quotes from details in the Forfeited Estates Papers on the economy of the time: "... their Corns never ripen except in a dry hot season; they sow some Potatoes and Flax Seed ... the Grain they sow is usually Oats and Bere and it is reckoned a good crop with them; with anything less than three Bolls of Oats yield one Boll of meal ... so that the only benefit they have is to get

Fodder for their Cattle in Winter". Flax was spun "... the produce of which and the sale of some Cattle is the only fund they have for making Money for Payment of their Rents and other uses". "The Houses are all built with Stone, and considering the Poverty of the Inhabitants, are tolerably good".

From the details noted on Cockburn's map, the holdings of each of the 8 tenants in 1755 was as follows:

Arable (numbered 14 on the plan)	6.34	acres
Meadow	1.1	acres
Moor (numbered 16 on the plan)	13.4	acres
Moor on the hill	82.95	acres
Total	103.79	acres

It is not known whether the land listed as 'arable' was entirely infield, outfield was not mentioned.

Roy's Military Survey of a few years earlier shows a 4-building cluster at 'E$^{r.}$ Leaks' almost exactly where Cockburn shows a cluster of the same size. The major problem in accepting the evidence of Cockburn's plan is that there were 8 tenants on East Lix in 1755 which, at a maximum of perhaps 6 per family, would indicate a population of about 40-50. But only one 4-building cluster was shown and this would hardly be enough to house the inhabitants. This might be explained in various ways: that Cockburn omitted at least one other cluster on East Lix (suggested by Fairhurst); that non-dwellings were not shown (this would still leave only 4 dwellings to house 8 tenants); that the buildings shown were, in fact, large enough (e.g. long and sub-divided) to house the number of tenants listed. It is difficult to

argue forcefully for any one of these possibilities. From the Lochtayside and Assynt Surveys it can be seen that some information appears to have been omitted by the surveyors (for instance some of the clusters depicted in Assynt by John Home are barely and often not large enough to shelter the numbers of tenants and non-tenants listed), so that there is perhaps some information lacking in Cockburn's plan. Roy's map agrees with Cockburn in location and number of buildings but no cluster, or even name, is shown by Roy for Mid Lix, although it existed and was recorded by Cockburn.

The rentals and tenants of East Lix over several decades are shown in the adjoining table, and the numbers of inhabitants seem fairly steady until the end of the 18th century. The period represented was one of considerable change, with the disappearance of runrig, consolidation of holdings and an increasing population (see Chapter 3.3 above). Fairhurst's excavations on East Lix yielded enough information to produce the plans shown at Figures 87 and 88. The site of Cockburn's 4-building cluster of 1755 could apparently not be traced, although the siting of it seems to have been close to Cluster IV on East Lix (EL/IV on Figure 87) and it may have been incorporated into that cluster. The insubstantial materials used in building may have had something to do with the lack of remains, and Fairhurst suggested that this was also the reason for the absence of even earlier remains. An alternative possibility was suggested by Dodgshon (1980, 62), in which the splitting of Lix into East, Mid and West altered the disposition of settlement so that the

East Lix, Tenants and Rentals, 1744-1822

	1744	1755	1765	1780	1794	1810	1822
No. of Tenants	8	8	8	9	8	11	8
Crofters, Cotters			1		2		7 +
Merks	4	4	4	4	4		
Shares	equal	equal	equal	7 @ 1/8 2 @ 1/16	equal	varied	varied
£ S D Sterling	£10"13"4d.		£11	£31"8"11½d.	£42		£125"17/-

+ all women, paying 7/- to 9/- each

sites excavated by Fairhurst may not have coincided with the older location of the cluster when it was a single integrated settlement. The settlement pattern which emerged from the excavations and ground survey was not a single pattern, a 'still picture' frozen in time in the sense of Rosal (11.2 below) before the Clearances, but rather a cultural landscape consisting of different elements of the chronological development of more than 80 years, suggested by the table of tenants and rentals.

By 1780, the rents on East Lix had trebled and Fairhurst suggests (1969, 173) that it was still held in run-rig at this period. Between 1794 and 1810 there appears to have been an increase in the number of tenants and inhabitants. The joint-tenancy farm was replaced by 11 'small holdings' and this period is allegedly represented by the rectilinear dykes, small enclosures and byre-dwellings shown on Figure 87. After this there was an increase in the number of non-tenants paying a nominal rent, mainly spinsters and widows, resulting perhaps in a number of cott-houses appearing among the larger buildings (e.g. EL/IB and F, EL/II, etc.). This, according to Fairhurst, led again to the clustering of settlement that had been dispersed from the old 'clachan' form at the time of the formation of the 'small holdings'. The remains on the ground, with some slight alterations, appear to represent this period and may, as Fairhurst states, "...be typical of a period not much longer than a single generation".

These results of fieldwork, excavation and documentary research show how problematic attempts to reconstruct earlier cultural landscapes can be. Applying some of the East Lix findings to Lochtayside, for example, suggests that, on some locations of 1769 settlements, subsequent developments may have substantially altered the layouts shown by Farquharson and McArthur although the actual sites were still used. Elsewhere, desertion of sites within a few decades of the Survey has left ruins which can be reasonably matched with the 1769 plans.

The ruins surveyed and excavated at East Lix seem little different from most Lochtayside and even Assynt remains, something which could be said for many Highland settlements over a period of about 100 years. The excavations have not increased our knowledge of chronology to any great extent, perhaps because once building in stone had been adopted over most of the Highlands, building styles remained little changed, apart from the development of mortared walls, as late as the early 20th century - even to the extent of using old techniques such as cruck-supported roofs when they were no longer necessary. The excavations were valuable in uncovering the interiors of many buildings (see photographs and Figure 88), showing that many 'long houses' were in fact sub-divided and that central hearths (Plate 101) rather than gable-end fireplaces were in some regions common to a late date. The information that some of the larger buildings were sub-divided could not be obtained from field-work alone, and the detail can be seen in Figure 88 which

would be blurred in any representation by solid black rectangles as in Figure 87 or, for example in Farquharson's symbols on north Lochtayside townships. Other details include the scatter of circular rick foundations (Figure 88 and Plate 102) in the vicinity of buildings B-C-D in group EL/III. A pair of garnetiferous mice-schist quern stones on the floor of Building D, a byre-dwelling in group EL/I (Plate 100) is an example of the probable late use of querns in the area, although their use is known much later in the century from other regions, particularly the Hebrides.

The extensions with fireplaces added to some longer houses on Lochtayside (the property of the same landowner) could also have been post-1800 developments.

In summary, the East Lix settlement pattern might be described as follows:-

1755. 1 cluster - 8 tenants, 4 buildings, 2 yards } from what may be incomplete evidence.

1790-1822. 5 clusters (8 tenants, 2 crofters 11 tenants 8 tenants, 7 crofters)

EL/I	8 buildings, 4 yards	Total 24 buildings, 9 yards
EL/II	2 buildings	
EL/III	8 buildings, 2 yards	
EL/IV	4 buildings, 2 yards	
EL/V	2 buildings, 1 yard	

11.2 Rosal, Strathnaver, Sutherland

The name of this site is recorded as early as 1269 (Fairhurst, 1968) when it was given as 'Rossewall'. On Timothy Pont's map of 'Strath-navernia' in Blaeu's Atlas, the data for which was collected around 1600, it is shown as 'Rossoll', and in the Sutherland Retours for 4th January,

1616, it is listed as 'Roisuall'. Although there is evidence in the form of hut circles and a souterrain for early occupation of the site, there are no definite remains for the 500 years from the 13th to 18th centuries except for part of the handle and body of a brownish-green glazed vessel, probably late medieval in date, found during excavation near the entrance to the souterrain or earth house (Corcoran, 1968, 117).

The surviving remains, apart from souterrain and hut circles, belong to a late date, probably in the second decade of the 19th century, when the site was cleared. John Henderson, in his General View of the Agriculture of the County of Sutherland (1815), listed all the townships in Strathnaver in 1806 (Figure 89). Rosal was noted as having 13 families and about 50 acres of arable. Among the Sutherland Estate Papers is a plan of the'Heights of Strathnaver', dated 1811; it shows Rosal ('Rosshill') and the surrounding area and includes within the township boundary the smaller settlements of Dalharrold, Dalmallart, Achadh an Phresh and Auchenrach (Figure 90); Rosal is listed as having 46.5 Scots acres of arable, 39.25 acres within the 'ring dyke', (infield and outfield are not distinguished), 34.8 acres of grass and 6.5 acres of 'shealings'. Fairhurst noted how the number of settlements listed from late medieval times, Pont's map, Roy's Military Survey and Henderson's list for 1806 increased through time and he suggested: "Several of the new names appearing on both Pont's and Roy's map are apparently old shieling names, e.g. Dionach Caraidh, 'Stronchergarry', Achargory, and from their location others might be added ...

It seems only reasonable to suggest that the number of settlements in Strath Naver had been extended since the Middle Ages mainly by the colonisation of shieling grounds and that this process was greatly accelerated in the later eighteenth century" (Fairhurst, 1968, 141). As in Assynt, these areas of detached grazing had been made fertile by dunging and trampling over decades and were potential arable and settlement sites. The settlements and shieling at Achadh an Phresh and Auchanrach, on the northern boundary of the Rosal/Dalharrold area (Figure 90) probably represent a stage in the process of islands of cultivation in the moorland merging to form townships the size of Rosal and Dalharrold.

The pattern of settlement and farming revealed by fieldwork, ground survey and excavation (Figures 91 and 92) resembles the plan of 1811, but not completely. It is worth quoting Fairhurst verbatim here, because of the implication of his words for other surveys of the later 18th and early 19th century. "The number of buildings (shown on the 1811 plan) is considerably less than half the number recognisable on the ground, mainly it would appear, because most of the small outbuildings and kilns had been omitted ... It is to be noted, too, that the spacing and orientation of the buildings on the plan is often inaccurate and a precise identification is not always possible. On the whole, a rather careless approach to the survey of the buildings is indicated, perhaps because they were all relatively

impermanent, perhaps because the surveyor knew that evictions were imminent. Changes, too, could have occurred in the short interval between the survey and the evictions. It must be remarked, however, that a study of the buildings pattern from the plan alone would have been decidedly misleading" (Fairhurst, 1968, 153).

The plan of Rosal produced from the survey (Figure 91) shows 15-16 long houses or byre-dwellings, 26 outhouses, 22 yards and 7 kilns. If there were 13 families, as recorded by Henderson (1815) for 1806, then this means that the number of byre-dwellings would tally quite closely with the number of families or tenants, particularly since Fairhurst suggests that 2-3 of the byre-dwellings might have been disused before the site was deserted. The buildings were distributed within the 'ring dyke' (Plate 103) in 3 rough groupings - North, South-west and South-east, with a single outlying long-house in the extreme north-east (Figure 91). The buildings were in general peripheral to the rigs of the arable land.

By contrast, only 22-25 buildings were shown on the 1811 plan, suggesting the possibility that certain structures were not recorded by the surveyor (cf. W. Cockburn's plan of East Lix in 11.1 above).

There was insufficient tumbled material to indicate any great height for the dry-stone walls of the buildings and they may have been stone-built for only c. 2¼ feet (0.7 metres), as a base for turf walls (Plate 104). Henderson (1815, 45) noted "... the houses of the smaller tenantry,

which they and their cattle inhabit together, are very mean and wretched. The walls are of mud (provincially feal) and the roof made water-tight with divots or thin sods, supported by couples and side timbers of birch or fir, made in the form of a semi-circle, having a few holes in the top of the roof to let out the smoke from a fire upon the hearth in the middle of the building, surrounded by the tenant, his wife and children. As the smoke diffuses through the whole of the building, the cattle who are tied by bindings made of birch wythes to stakes in the walls at one end of the house, reap the benefit of the warmth. In some cases the walls are built with a tier of stone betwixt each tier of feal, and in some the first three feet high of the walls and gables are built with stone, and the remainder of feal and sods". This seems to be a quite accurate description of the houses at Rosal, and the view is augmented by the remarks of Sir John Sinclair, in his General View of the Agriculture of the Northern Counties and Islands of Scotland (1793): "The estates furnish some wood, with which, and the swarded surface of the ground, cut into the form of large bricks, they make houses and offices for themselves, covering them with the same swarded turf, cut thinner and resembling slates in their form. Once in three years, all the earthy part of these houses is thrown on the dunghill, and new houses built again of the same materials. The cattle commonly occupy one end of the house during the winter season. Some holes in the walls and roofs serve for windows and chimneys. An iron pot, for boiling their food, constitutes their principal furniture. Nothing can exceed the wretched appearance of these habitations".

Fairhurst (1968, 144) tried to identify smaller groupings or 'complexes' within the general Rosal layout. He suggested that in the northern area a complex might contain a long house, a separate yard, one or more outhouses and a kiln at no great distance, whereas, in the southern part of the township, a yard seemed to be the focus for several buildings, and there were some isolated long houses. About 11 or 12 of these complexes were identified. Complex A (Figure 92) had a long house or byre-dwelling, 92 ft. x 19 ft. (28 m x 5.8 m), a barn, 41 ft. x 18½ ft. (12.5 m x 5.6 m), an outhouse, 36 ft. x 16½ ft. (11 m x 5 m), a yard, a storage pit and a kiln (not shown).

The surveyor of the 1811 plan, Benjamin Meredith, noted that the main source of income was the rearing of black cattle, but horses sheep and goats were also kept, and that the more industrious of the menfolk migrated south during the spring and summer months to supplement their resources. The food of the inhabitants was probably much like that mentioned by Henderson (1815, 120): "The inhabitants near the coast-side live principally upon fish, potatoes, milk and oat or barley-cakes. Those in the interior or more Highland part, feed upon mutton, butter, cheese, milk and cream, with oat or barley-meal cakes during the summer months.. In winter the more opulent subsist upon potatoes, beef, mutton and milk; but the poorer class live upon potatoes and milk, and at times a little oat or barley cakes".

A number of china potsherds were recovered from the long house in Complex A during excavation. Most appear to date from the end of the 18th and the first decade or so of the 19th century. They were probably manufactured, as poor copies of finer English wares, in the kilns of the Glasgow or Forth areas, and brought north by packmen or returning migratory workers.

The pattern of settlement at Rosal can be dated by the evictions of 1814-18 which left the area devoid of human occupation. No further developments took place in what became an area of sheep run and the remains have preserved a picture, with some missing features, of a cultural landscape adapted to the Strathnaver environment of the opening decades of the 19th century.

11.3 Kilphedir, Strath of Kildonan, Sutherland

The Strath of Kildonan begins in the vicinity of the small settlement of Kildonan and runs in an ESE direction to the sea at Helmsdale. From Kildonan, "... the hills close in on the Helmsdale River until ... there is only a narrow ribbon of low ground at the bottom of a steep sided glen, widening a little where a side burn enters" (Fairhurst, 1964). The glen rises more steeply on its southern side so that the greater density of settlement has always been on the northern, south-facing, slope (Figure 95). The words "always been" are deliberate here, as the strath has a great density of remains of cairns, stone rows, stone circles, cup-marked stones and, more particularly, early

settlement remains in the form of brochs, souterrains, hut circles and ancient field patterns, both in the main valley and spreading up into tributary glens (Figures 95 and 96).

One area which has been investigated in recent years is that around Kilphedir, where the south-flowing Allt Cille Pheadair joins the Helmsdale River (Figures 93 and 95). At this point the level land is no more than about 450 yards or 400 metres wide. The settlements tend to be on a terrace about 120 to 150 feet (35 to 45 m) above sea level, behind which the land rises more steeply. As in Strathnaver, the valley was surveyed around 1811-1812 as a preliminary to clearance for sheep, which took place 1813-1820. The plan of the Kilphedir area is shown at Figure 93. There are no figures for population, and the types of land, although having acreages written on them, are not clearly distinguished. The arable is represented by clear, unshaded areas on the original plan, apart from which there was only 'Pasture', or 'Brushwood Pasture'. The large piece of arable east of the settlement at Eldrable (Figure 93) had written on it 'Field wt. Bauks' on the original plan, suggesting separated rigs. The settlements, with their land areas below the head dyke, were:

Settlement	Land (Scots acres)	Buildings
Kilfetter	Arable 7.88 Pasture 19.3	6 + mill + 2 yards
Chorick	Arable 7.63	5 + 2 yards
Salscraggie	Arable 7.48 Pasture 2.9	5 + 3 yards
Grudsterry	Arable 5.6 Pasture 4.88	3 + 1 yard 2 + 1 yard 2 + 1 yard
Eldrable	Arable 20.1 Pasture 20.79	10 + 2 yards 5 + 2 yards

The 2 extra clusters listed for Grudsterry are to the east of the main cluster and not shown on Figure 93; the extra cluster on Eldrable is to the south-west of the main cluster and not shown on Figure 93. The size of the symbols on the plan might suggest 2 long houses on Kilfetter (Kilphedir), one on Chorick, one on Salscraggie, 3 on Grudsterry and 4 on Eldrable. The cluster at Chorick was surveyed and planned in 1962 (Figure 94) and it gives a slightly different picture. The possible 'long house' shown on the 1811-12 plan running W-E on the western side of the cluster can now be seen to be shorter in length than the N-S running building at its eastern end. This longer building (about 80 feet or 24 m) could, of course, have had a section added after the survey, as the sub-divisions at the northern end suggest. The kiln recorded in 1962 was not shown in the 1811-12 survey, but it may have been normal to ignore these structures. The ruins on the western edge of the cluster were also not shown on the early plan, but they may have already been ruinous when that survey was carried out. Apart from these

differences, the comparison between the two plans is remarkably close in location and orientation of buildings and yard. Chorick may not have been a separate township (the lack of pasture supports this) but rather another cluster on the same farm as 'Kilfetter', separated from it by the Kilphedir Burn. The foundations of the buildings are not unlike those at Rosal, and Henderson's description of house construction might also apply to Kilphedir. The cluster size varies from 2 to 10 buildings and in this the pattern resembles more that of Lochtayside than Assynt or Rosal. The settlement clusters along the strath here were located where smaller streams come down to the Helmsdale River, and Kilfetter would appear to have been a 'mill town'. Little more can be said about the agriculture, but perhaps the note of a field with 'bauks' (baulks) is an indication that run-rig was still operating.

In this part of the Strath of Kildonan there was no evidence for penetration of 18th/19th settlements into the tributary valleys. This was quite the reverse of the prehistoric pattern, as can be seen from the large numbers of hut circles and enclosures farther up the Allt Cille Pheadair and its tributaries (Figure 95). Just as the late 18th - early 19th century settlements are closely associated with the level land along the floor of the strath, these early sites are located at higher levels, rarely as low as the later settlements and up to about 1000 feet (305 m) above sea level. It is of course possible that this apparently mutually exclusive distribution pattern is purely

the result of the destruction of the remains of earlier settlements by the later cultivation of valley floors. A group of hut circles, with old field boundaries and clearance cairns, was excavated in 1963 (Fairhurst and Taylor, 1971). The pattern revealed (Figure 96) was one of small arable areas dotted with clearance cairns, which suggested some kind of spade or digging stick (a predecessor of the cas chrom?) cultivation rather than any kind of plough. A range of radiocarbon dates has been obtained from charcoal from two of the huts, suggesting different periods of occupation and rebuilding: 420 ± 40 bc, 265 ± 60 bc, 150 ± 80 bc, 150 ± 50 bc, 114 ± 55 bc, 95 ± 65 bc, 28 ± 60 ad, 42 ± 60 ad. The region is an example of many sites in the Highlands where late 18th or early 19th century deserted settlement remains are near, or downhill from, sites of prehistoric occupation. Rosal's hut circles are an example of this. But although there is documentary evidence for the existence of the place-names in medieval times, there are no remains which can be ascribed with any certainty to the period between the Iron Age and the 18th century. This leaves unanswered the question of the relationship through time of the hut circles, field systems and broch on the sides of the Kilphedir Burn with the remains on the valley floor below (Figure 95).

11.4 Easter Glentarken, Lochearnside, Perthshire

Glentarken is part of an area mentioned in documents from the Middle Ages onwards. In the 16th century it became the property of the Campbells of Lawers, a cadet line of the

Campbells of Glenorchy/Breadalbane (see 4.2 and 4.4 above).

In the Great Seal for 4th June, 1540 (RMS 2159) is recorded:

> "Rex confirmavit Jacobo Campbell de Lawaris ... terras de Fordew, Glentarcane, Balmuk, in dominio de Stratherne, vic. Perth".

In 1650 (Perthshire Retours 595):

> "Patricius Campbell ... in terris de Glentarken et Darrie in senescall-atu de Stratherne. - A.E.50s. N.E. £10.

Here the rental is shown as the 'old extent' (A.E.) and the 'new extent' (N.E.). By 1683 the lands were part of the Barony of Edinample (Perthshire Retours 926):

> "Joannes Campbell de Ednample, haeres Joannis Campbell de Ednample, patris, in .. mercatis terrarum de Ardbeichlorne, et... mercatis terrarum de Darrie: -A.E. £4. N.E. £16. Terris de Glen-tarkine in dominio de Stratherne:- E. £16. 13s.4d. feudifirmae:- libratis terratum antiqui extentus in Balquhidder nuncupatis Glenample, Edinample cum molendino ejusdem ... et piscationibus de Locherne, in dominio de Balquhidder ... unitis in baroniam de Ednample".

"Darrie" and "Ardbeichlorne" (modern Derry and Ardveich) were the lands to the west of Glentarken on the north side of Loch Earn. Edinample Castle, the seat of the barony, was near the western end of Loch Earn on the south side. The fishings on Loch Earn were included in the titles. It is interesting to see Strathearn referred to at one time as a seneschalry, stewardship or stewartry.

By the mid-18th century, Glentarken was part of the Perth Estates, forfeited or annexed after the '45. In the Forfeited Estates papers in Register House, Edinburgh

(Wills, 1973), there are some statistics of the inhabitants for 1755-56:

Farm	Tenants	Cottars	Males	Females	Total
Wester Glentarken	12	4	32	32	64
Easter Glentarken	6	6	18	31	49

On Wester Glentarken there were 18 people 'who spin' and on Easter Glentarken 20. On Wester Glentarken 42% of the inhabitants spoke English and on Easter Glentarken about the same. Despite a population of 113 for Glentarken at this period, Roy's Military Survey map surprisingly shows only one cluster of 5-6 oblongs on the eastern side of the Glentarken Burn and nothing on Wester Glentarken.

By the beginning of the 19th century the lands were again part of the Perth and Stobhall Estates. In the Estate Office of the present Drummond Castle Estates in Muthill are two large books of plans titled: Atlas of the Estate of Perth, 'the property of the Honourable Mr and Mrs Drummond Burrell'. The survey was carried out by James Knox in 1810. The plan (Plate 105), redrawn as Figure 97, is from this Atlas, where it was labelled "Plan of the farms of Easter and Wester Glentarken with the Pendicle of House of Wood" (see photograph). The scale of the original is 1" = 8 Scots chains (1:7115). The Atlas had figures for the types of land (in Scots acres) in each farm:

	Arable	Pasture	Bog	Muir	Wood	Total
W.Glentarken	70.75	111.43	-	1216.63	22.14	
Cluster A	1.16					
Cluster B	0.83					1422.94
E.Glentarken	52.70	111.29	7.64	1610.91	45.46	
Cluster A	0.46					
Cluster B	0.40					
Cluster C	0.32					1829.18
House of Wood Pendicle						
	7.67	-	-	-	0.21	
House	0.15					8.03
						3260.15

The clusters are shown here because Knox listed under 'Arable' the "Houses, Yards and Areas" (cf. Assynt). Under this heading the large Wester Glentarken settlement has by far the largest area.

The number of buildings per cluster were:

W. Glentarken - Cluster A - 25 buildings, 6 yards (1.16 acres)

" - Cluster B - 10 buildings, 1 yard (0.83 acres)

E. Glentarken - Cluster A - 6 buildings + mill, 3 yards (0.46 acres)

" - Cluster B - 4 buildings, 2 yards (0.40 acres)

" - Cluster C - 5 buildings, 2 yards (0.32 acres)

It is not easy to pick out possible long houses from Knox's plan of Wester Glentarken (Figure 97), particularly because of the crowding together of buildings, but there are possibly 7. On Easter Glentarken there appear to be 2 in Cluster A, 1 in Cluster B and 2 in Cluster C. Any attempt to correlate

this number of possible long houses or byre-dwellings with numbers of tenants would be unwise. It did not tally, for instance, on Lochtayside and, in any case, the number of tenants listed for Wester Glentarken for 1755-56 in the Forfeited Estates papers was 12 + 4 cotter families and the trend was for population increase towards the end of the 18th century. The 35 buildings on Wester Glentarken A-B in 1810, not all of which were necessarily dwellings, must have housed more than the 64 inhabitants recorded for 1755-56, and if the trend on Lochtayside and elsewhere holds also for this region then the number of cottar or cotter families must have increased by the early 19th century. In the same way, the 15 buildings on Easter Glentarken must have housed a somewhat larger population than the 49 of 1755-56. If the 'Easter/Wester' names are a result of 'town-splitting' (see 6.1 above) then this must have happened between the Retours reference to 'Glentarkine' in 1683, mentioned above, and the listing of Easter and Wester towns in 1755-56.

The cluster pattern on Easter Glentarken in 1810 was similar to many townships on Lochtayside 40 years earlier and the lochside situation increases the similarity. The settlement on Wester Glentarken was more like the large single clusters recorded by John Home in Assynt in 1774. The large concentration on Wester Glentarkan does have some resemblance to the cluster on Croftantayan (see 6.2 above) with its 27 buildings for only 6 tenants. The next largest on Lochtayside had 16 buildings. It is difficult to explain this density of settlement on Wester Glentarken, just across

the burn from the 3 smallish clusters on Easter Glentarken. Perhaps it was partly a 'cottery' or cotter-town where the cotters or crofters for the whole of Glentarken resided. This might also be the explanation for the concentration at Croftantayan, on Lochtayside.

A closer look at the field remains in Cluster C on Easter Glentarken produced the plan at Figure 98. As is very obvious, the remains on the ground greatly outnumber the buildings shown on Knox's 1810 plan. On the first 1:10,560 (6") O.S. map of the 1860's, only 2 buildings are shown, in outline, and therefore presumably ruined or deserted. This means that the 1860's surveyors did not include all remains on the ground and perhaps ignored all but upstanding walls. It also suggests that Knox did not include all buildings on his plans and that he may have recorded only dwellings. There were 3 long houses or byre-dwellings in Cluster C - A, B and K, but K is very ruinous and less distinct than the other two. A is 102.5 feet in length (31.25 m), B is 106.5 feet in length (32.5 m) and K is 67.25 feet in length (20.5 m). All 12 buildings were between 14.75 feet (4.5 m) and 19 feet (5.8 m) in width. There are remains of 2 kilns in a very ruinous state about 110 yards (100 m) north-east of long house A. Both A and B appear to have been extended, A at the eastern and B at the southern end. There is a very obvious byre drain in the eastern part of the longer section of A. In front of the western doorway is a cobbled area from which there is a step down on the southern edge of about 1 metre. The effluent from

the byre-end of A presumably emerged under this cobbled platform. A cobbled platform at the southern end of building D may have been used for stacking peats. The structures E and I/J are unusual. I and J appear to be 2 buildings built against each other, but the L-shaped E seems to be a single structure with a possible partition and out-shot. The buildings shown by Knox in Cluster C are undoubtedly L, A and B," with probably F and H. Why these should have been shown and not the others is impossible to say, apart from these 5 structures possibly having been dwellings and the others not. It might be suggested that the other 7 buildings were constructed after 1810, but this would imply that they had also been deserted and ruined within 50 years while some of the older buildings had survived in a condition to be shown on the first 6" O.S. map. If only dwellings were depicted on Knox's plan then the large concentration on Wester Glentarken, including outhouses, should have left an even greater number of ruins on the ground, but this is not the case. The remains on Wester Glentarken agree reasonably well with the number of buildings on Knox's plan. Why there should have been this great agglomeration of settlement on Wester Glentarken (the division into 2 clusters is purely arbitrary) while Easter Glentarken had only 3 smaller 'normal' clusters is difficult to explain solely on the evidence of the plans.

The buildings examined in Cluster C on Easter Glentarken are not much different from those on Lochtayside, some of which undoubtedly date from 1769. None of the Cluster C remains exhibit gable-end fireplaces - a feature missing

from the Rosal buildings as late as 1814. The long houses (A, B, K) are very narrow (17 to 18 feet or 5.0 to 5.5 m wide) and this has been suggested as an archaic feature (Gailey, 1962a). It may be that on Easter Glentarken there were older buildings which had survived for decades (with some rebuilding), particularly the larger long houses or byre-dwellings, and that in the period of unprecedented growth in the late 18th and early 19th century these clusters had been expanded to accommodate the rapidly increasing population.

The difficulty in matching the early plans to modern field remains is common to all the sites discussed and must surely qualify any acceptance of evidence from 18th - 19th century land surveys. The situation at Rosal in Strathnaver was unusual because of the impending clearances, but Fairhurst's comments (1964) should be seen as a caveat for other regions: "The relatively small scale plans of Strath Naver portrayed the building pattern only in very general terms, and this casual treatment, while it may be ineptitude, seems to call for further explanation. The dwellings were, we know, both unsubstantial and liable to be replaced at short intervals (this holds good for most areas at this time): possibly "B.M." (the surveyor, probably Benjamin Meredith) knew perfectly well that his plans were intended for use in the Clearances ... Until more detailed studies have been made of Scottish Estate plans, it would be as well to remember that the surveyors may not have paid too much attention to accuracy in portraying a building pattern which they knew was about to be superseded".

11.5 Some Comparative Building Sizes and Forms

From the sites mentioned in this chapter, and from Lochtayside and Assynt, it has been possible to compile a table of comparative building sizes for 5 areas. The buildings on Lochtayside, in Assynt and at Easter Glentarken were measured by the writer in the field; the measurements for East Lix and Rosal have been taken from Fairhurst (1968, 1969). All the measurements in the table (Appendix 26) are external. Fairhurst notes for East Lix (1969, 175) "Dimensions of buildings are internal unless otherwise stated. Overall size of most of the structures may be obtained roughly by adding 7 ft". This has been done for length and width for East Lix and for Rossal. Elsewhere, some walls are only 2 to 2.5 feet thick.

It should be said immediately that this cannot be a contemporary regional comparison, since chronology varies so much. Rosal has least chronological variation, since the site was cleared in 1814, but Fairhurst suggested that a few of the buildings were probably already disused at this time. Lochtayside buildings should be dated within the range 1769 + 100 years, Assynt 1774 + 100 years and Glentarken 1810 + 70 years. East Lix probably involves changes over a period of 1755 + 80 years.

The most obvious feature of all the buildings measured is their narrowness. Of those measured, all but 8 are between 10 and 20 feet (3 and 6 metres) wide. The Rosal and East Lix buildings are mostly between 15 and 20 feet (4.5 and 6 metres) wide. Subtracting an average of 5 feet

(1.5 metres) for external measurements, this gives an internal width range of from 5 to 15 feet (1.5 to 4.5 metres) with a few small outhouses falling below this minimum.

Discussing house sizes in Argyllshire, Gailey (1952a, 6-7) noted: "Measurements made in ruined settlements in Argyllshire show that late eighteenth and nineteenth century houses fall into two clear dimensional groups. There are houses with widths in the range eight to eleven feet and these are associated with structures having lengths in the range ten to twenty feet, though a house may consist of more than one apartment, giving a total length up to forty feet (all measurements are internal)".

"Settlements in the second dimensional group include houses with widths between twelve and sixteen feet, apartment lengths falling in the ranges ten to eighteen feet and twenty to thirty-five feet. In this group, total house lengths may be as little as forty to forty-five feet (for instance a two-roomed house), but they not infrequently attain lengths anywhere in the range of fifty to one hundred and five feet. Two ruined settlements are of vital importance, both in South Knapdale. At Achadh na h-Airde and at Breac Bharr wider houses demonstrably overlie narrower ones, thus supporting the idea of a relatively earlier date for narrower houses ...".

There are many long and narrow buildings in the selection in Appendix 26. Many must have been sub-divided internally, although this is not always easy to discern.

among scattered ruins, but the two longest buildings on Easter Glentarken, Cluster C (Figure 98) certainly seem to have secondary extensions, and there are some buildings in each region covered where remains of internal walls could be traced (various photographs). At Rosal, Fairhurst (1968, 143-144) identified a number of houses up to 108 feet (33 metres) in length with no apparent internal divisions between byre and living area, but occasionally a small extra compartment had been added to the ends of some of these (e.g. the long house in Figure 92 and Plate 104). There is something archaic about the narrowness of these houses, 9 to 12 feet (2.7 to 3.6 metres) wide internally, but this may have been due to the instability of walls of turf and dry-stone construction.

Ruins with dimensions of 50 feet (15 metres) in length and over may be interpreted as houses, long houses or byre-dwellings, whether evidence survives for internal sub-division or not (e.g. Fairhurst, 1969, 167). Remains of smaller houses, cottages, barns, separate byres and other outhouses are usually less than 50 feet in length. Cruck-slots and even parts of the crucks themselves have been recorded at a few sites (various Plates), their existence depending very much on the height of the surviving walls. Regional variation in the length of the lower cruck member and its height above floor level is again difficult to demonstrate from the little surviving evidence. In some settlements the bottom end of the cruck stood on the surface of the ground (this seems to have been the case at Rosal), or was actually

set into the ground, as with the building at Lochcarron, Wester Ross, described by Donald Sage (Sage, 1889, 10-11, quoted here in Appendix 28). Elsewhere the cruck bottoms may have been grounded on a single stone or have ended as much as 3-4 feet above floor level, but this is much less likely to be based on regional tradition than on the type of wood available, the condition of the soil, and whether the walls were built of turf, dry stone, or were mortared. Some crucks may not have been actually set into the walls, but rather built against the wall face. The possibility that a standard distance existed between cruck couples (along the length of the wall) has been discussed by Walton (1957) and he noted a distance of about 6 to 9 feet (1.8 to 2.7 metres) between crucks in different parts of Scotland, and references to 'two-coupled' and 'three-coupled' houses.

The cruck-couple in the Highlands is seen as a necessary load-bearing support for a roof where the walls were of turf, turf and stone, or some form of turf or clay with wickerwork. But it would also have been necessary in some totally dry-stone built houses, depending on the type and form of stones available - the obvious difference between the flagstones of Caithness and the fluvio-glacial boulders of some parts of Sutherland is an example. Some dry-stone walls were possibly less stable than well-built turf walls. Some of the remains of dry-stone built houses shown among the photographs appended here have cruck-slots or vestiges of the crucks themselves surviving.

The use of crucks in stone walls is seen by Gailey (loc. cit.) as a relict feature: "... The survival of the cruck in well-built stone houses is anachronistic. The cruck is associated with a house form where the side walls are unable to absorb the full outward thrust of the roof. In Scotland we find the cruck in stone houses, the walls of which are fully capable of absorbing the thrust from a normally coupled roof resting directly on the wall-heads, as is the case in most Irish stone-built houses, and also in Highland stone houses built during the later nineteenth century. The survival of cruck-slots or crup-slots, in stone houses in ruined settlements in the parishes of South Knapdale, Inverarary and Ardnamurchan, and in Glenlochay in Perthshire, is to be regarded as a regressive feature, a manifestation of cultural and technical time-lag".

Elsewhere (1962b, 170) Gailey uses a comment by John Smith in his General View of the Agriculture of the County of Argyll (1813, 16-18) to support the notion that crucks in stone-built walls were an anachronism: "The couple side consists sometimes of one piece, with a natural bend, sometimes of two pieces, fixed together at the eaves. The feet are built up in the walls, which is apt to shake them. If the walls were of stone and lime, the couple-soles might as well rest on top of them, over a flag, like those of slate or tile roofs. This mode, which is less troublesome and expensive, has been lately followed in several instances in Kintyre". Smith is, in fact, suggesting that crucks in lime-mortared walls were superfluous and that still leaves

the possibility that some dry-stone built walls required cruck-supported roofs for stability. The important factor here may be the local environment and the availability of suitable building stone.

On the anachronism of cruck couples in seemingly well-built stone walls Dunbar (1966, 228) has also commented: "At first sight it seems puzzling that timber-framed structures should ever have been provided with such substantial walls, for it would appear to have been more economic either to have employed a cruck framework in conjunction with walls of turf or wattle, or to have dispensed with crucks altogether in favour of a stone- or clay-walled building with a coupled-rafter roof. Reluctance to abandon a time-honoured method of construction supplies a partial explanation of this apparently contradictory state of affairs, while it is also worth remembering that an existing cruck framework may be older than its surrounding walls, and that stone or clay may have been substituted for less durable materials during some previous rebuilding operation".

CHAPTER TWELVE

CONCLUSIONS

In a paper on the nature of settlement geography, T.G. Jordan (1966, 27) stated that the concern of settlement geography should be "... the study of the form of the cultural landscape, involving its orderly description and attempted explanation". These are laudable aims, and they suggest a sequence of approach and recording of information along fairly systematic lines, some of which have been attempted here. There is always a danger, however, that in seeking 'orderly description' the actual complexity of the cultural landscape might be reduced to a false simplicity. This problem is encountered in attempting to distinguish regional variations in Highland settlement patterns in a period of great and rapid change. The overall picture is complicated by the differences and inconsistencies in available estate plans and their chronological range; by the variety, discontinuity and differing state of survival of remains in the field; by the ephemeral nature of building materials at quite late dates in some regions; by different local physical environments; by socio-economic factors such as the decision of chiefs, lairds or landowners, systems of tenure, methods of working the land, and by the great influence of tradition.

12.1 Settlement Groupings

One major generalisation that can be made about Highland rural settlement before improvement, rationalisation or clearance, is that the settlement form was usually a non-

village cluster or clachan (in the sense of Fairhurst and Gailey) whose main function was to shelter the tenants, sub-tenants, crofters or cotters of a township with their animals and farming tools; one or more of these clusters were scattered across a township.

The patterns shown at Figure 99 represent a selection from the regions studied in detail in Chapters 4 to 11. There is a degree of similarity among the patterns 99A, D, E and F (North Lochtayside, 1769; E. Glentarken, 1810; E. Lix, c. 1790-1822; Kilphedir, c. 1810-15), despite the differences in date of the various plans or other documentary evidence. At first glance this might appear to be purely environmental, Perthshire as against Sutherland. But 99F (Kilphedir) is also a Sutherland region, although the Strath of Kildonan more nearly resembles a Central Highlands glen than it does the northern and western areas of Sutherland. Assynt and Rosal (Figure 99B and C) require separate consideration since they represent different environments and peculiar combinations of socio-economic factors. Assynt, particularly in the over-populated coastal townships and because of great fragmentation of the physical and economic landscape, had normally only one large settlement cluster per farm (in 20 out of 29 farms studied in detail), located in one corner of the township, with the stances of the houses and the yards included in the infield acreages. Rosal had its settlement and the major part of its economic land within what Fairhurst has described as a 'ring-dyke', separating it from the waste, moorland, rough grazing and shielings. The settlement

grouping within this boundary is very loose and scattered, and the division into 3 clusters is purely arbitrary.

From the samples shown at Figure 99 and the figures in Appendix 27, it might be a useful working hypothesis to regard the township with two or three small clusters of settlement as the 'norm', and anything departing from this pattern to be seen as the result of more special or isolated combinations of circumstances. This generalisation will inevitably be altered with further research.

The sizes of settlement clusters based on various sources of information over a period of 70-80 years are shown in Appendix 27. Average cluster sizes can only be meaningful where a sufficiently large number have been studied, and this really holds good only for Lochtayside (Appendix 5), Assynt (Appendix 18) and parts of Argyllshire (Gailey, 1961), but there is a suggestion of a cluster size of 5-6 buildings on average, particularly when areas with unusually large clusters are omitted, such as coastal Assynt, Rosal, W. Glentarken and Glen Strathfarrar. The extremes of any range of settlement-cluster sizes are interesting in themselves and should not be forgotten in the process of averaging. The numbers of buildings per cluster in Assynt (Appendix 18), for example, range from 25 at Clashnessie to 2 at Batachrianan. On a map of Glen Strathfarrar, Inverness-shire in 1758, by Peter May, 13 settlement clusters with an average of 13 buildings in each have been identified (Mather, 1970), but the extremes are 1 building on Upper Moyley and 59 buildings on Culligran! The element of uncertainty in producing

settlement statistics from 18th/early 19th century estate plans will always exist. The questions of how many buildings or even clusters were missed by the land surveyors and why they were omitted will probably never be satisfactorily answered.

Even Roy's Map is subject to criticism. Gailey (1961) reviewed its accuracy in particular areas, concluding that the representation of settlement was diagrammatic and that the number of sites shown was often incorrect - usually too few. This seems to have been the case in inland Assynt which was, however, a very difficult terrain. It was noted, however, that the grouping size averaged out over large areas and Gailey (1961, 257) suggested that there may have been a 'tacit recognition' of an average settlement size over particular areas, for instance from 3.5 buildings per group in southern Argyll to a maximum of about 5.5 in north and north-west Argyll.

The ruins in the Highland landscape represent in many areas the end product of what was undoubtedly the continued use of the same locations over a long period of time, but through more than one style of building and using different materials. Fairhurst has suggested for Lix that none of the buildings excavated and surveyed by him on East Lix agreed with the location and numbers of those shown on Cockburn's 1755 plan. This should not be surprising, since the 1755 cluster might have been built of non-durable materials and the remains studied are of a later and final phase of development in that area. This situation must exist in

many other regions. But it must also be stressed that there are townships where ruined settlements have survived in locations as shown on 18th/19th century plans. To quote only one example from the sites mentioned in Chapters 6 and 9, the township of Newton in the glen running south from Ardeonaig on South Lochtayside. In 1769 there were only 2 tenants and 2 small clusters of 3 buildings each (Figures 37-40, 42, 43; Plates 40-43). Measurement of ruined foundations on the ground showed the same general size, location and orientation as on John Macarthur's 1769 plan. The long house of Cluster A has only a couple of courses of the foundations surviving (Plate 42), but one of the two other buildings has walls surviving to gable height. This has obviously been rebuilt or kept in repair as a shelter for young animals, etc., but the wall bases and general size are in keeping with the 18th century plan. This and the other Cluster B plus the neighbouring farm of Suckoch are the only sites on Lochtayside where the surveyor has shown houses in a sort of 3-dimensional drawing (Figures 42-43). If these were in any way meant to represent 'better' houses of the time, then they have fared no better than other buildings in the area in the intervening 200 years. There are other farms where ruined settlements have survived in locations shown on early plans but where, a few hundred metres distant, clusters also represented have disappeared without trace. This emphasises the need to recognise that if, for whatever reason, a cluster had to be deliberately moved and rebuilt elsewhere, the materials and building

techniques used (even dry-stone building) could have been such as to leave nothing for the modern field worker.

Where early maps or estate plans show sites which have left no modern traces, there is obviously a need for more subtle survey methods. Future research might involve the intensive investigation of small areas with geophysical or soil analysis techniques. The potential value of soil phosphate analysis (Proudfoot, 1976) has recently been demonstrated on a late prehistoric or early historic settlement and field-system site at Old Kinord in Aberdeenshire (Edwards, 1983), with the possibility of differentiating between areas of settlement and of agricultural activity on the basis of soil phosphate concentration.

Excavation has so far been attempted only at Lix and Rosal, but with no great success in revealing anything earlier than the second half of the 18th century. The only excavation of a clachan or settlement cluster previous to the Lix excavations was that at Murphystown, Co. Down (Buchanan et al., 1958, 1959; Proudfoot, 1959). The surface structures were mainly 19th century in date but the excavations revealed remains of walls and foundation trenches unrelated to, and orientated quite differently from, those of existing buildings, indicating that the 19th century layout of clachans was not necessarily the original layout. Patches of ash and charcoal and sherds of pottery in the floor of a barn suggest that it may have at one time been a dwelling. Older pottery from pits appear to indicate an earlier, perhaps pre-18th century, occupation. Small, unpublished excavations in the

floors of buildings in the settlement that is now Auchindrain Museum of Country Life have revealed traces of earlier floors under the present ones and slight but obvious changes in alignment and internal sub-division.

No attempt has been made in the present study to trace the earliest origins of these Highland settlement clusters, but sufficient historical documents have been quoted to show that the names, if not the contemporary remains, of many of them survived through centuries. It is interesting to see how many sites have remains of much earlier occupation close by: the remains of a dun or broch ('Old Castle Down' on John Home's plan, Figure 58a) at Clashnessie; the broch (Home's 'Old Castle'), tumuli and other finds at Clachtoll (Figure 65 and Plates 75 and 76); the souterrain and hut circles at Rosal (Figure 91); the possible 'ring fort' at Mid Lix (Figure 87 and Fairhurst, 1969, 181); but above all the Iron Age settlements, field systems, souterrains and broch at Kilphedir (Figures 95 and 96). There are few prehistoric sites along Lochtayside, compared with the density in Strathtay, east of Kenmore (Stevenson, 1975). This difference is not easy to explain, but there may have been fewer sites originally on Lochtayside and many of these might have been destroyed by agricultural activity. The apparently missing material remains of sites whose names certainly occurred in documents through at least the later medieval period may have to be sought by more intensive survey and excavation techniques in these regions which

have ruins of very early and very late periods of occupation in close proximity.

12.2 Houses and Buildings

"A highland town, as before mentioned, is composed of a few huts for dwellings, with barns and stables, and both the latter are of a more diminutive size than the former, all irregularly placed, some one way, some another, and at any distance look like so many heaps of dirt" (Burt, 1754).

The appearance of buildings built of turf or of wattle and daub might have suggested dirt heaps to someone more used to stone-built structures. Certainly the illustration accompanying Burt's description (Plate 108) suggests something other than stone. The artist was not very professional, having obvious difficulties with perspective, but the building materials appear to be turf or turf and wattling of some type. The house shapes appear to be a mixture of straight gable-ends and rounded ends, with a very shallow roof in the foreground, and with smoke-holes apparently lined with wooden staves passing through the roofs. Elsewhere (as quoted at the beginning of 6.3 above) Burt noted obvious stone ruins from which the timbers had been removed. In this case the suggestion would seem to be that the inhabitants had rebuilt elsewhere and needed the timbers, especially shaped couples, a scarce commodity in some parts of the Highlands. The taking away of timbers had often caused trouble in Highland townships. The Court Book of the Barony of Skene records for the 2nd November, 1625:

> "The said day, the bailze heiring of gryt trubill and discord betwin the laird and his tenantis anent the waytaking of doris at thair removing, for remeid in tyme cuming thairof, with consent of the haill tenantis, the bailze decernit and ordanit that, in all tyme cuming, that na removand tenant tak not away na doris from thair biging except inner doris, and giff thay pruiff ony doris to be thair awin, the laird is ordanit be the bailze to pey thame for the samyn".

The reference here is to doors, but structural timbers were also taken away at the times of removal.

The descriptions of buildings by Burt and other travellers in the Highlands (Appendix 28) more often suggest perishable materials than stone walls, so that there can be little evidence of these surviving on the ground to the present unless the superstructures were on stone foundations. There is no doubt that buildings of perishable materials and even early dry-stone structures must have frequently fallen into disrepair. In some areas the sites were abandoned and re-building took place at other locations with fresh materials, in others the very building stones may also have been removed to the new site, leaving nothing behind. Re-allocation of house stances could also mean re-shaping of settlement clusters. Elsewhere, e.g. Assynt, particularly on coastal townships, because of restrictions on land available for houses, the same sites may have been used constantly for generations of building and re-building, with more durable materials only in the later stages. Gailey (1962b) has noted at least two sites in Knapdale where broader stone-built houses overlay narrow stone-built houses.

There have been warnings in recent years about over-estimating the dates of ruined settlements. N.G. Allen (1979) has suggested that some remains have been given a greater antiquity than they deserve because of the use of ancient building techniques and materials down to recent times. An example of this late survival, but with knowledge of the true date, can be seen at Rosal (11.2 above), where turf walls on dry-stone foundations, very narrow interiors and roofs supported on cruck couples springing from ground level were in use into the second decade of the 19th century. Another example of the endurance of older building traditions is on the former township of Cuiltrannich on North Lochtay-side (Chapter 6.3, Figures 30-31, Plates 20 to 29). The 1769 plan shows 3 clusters and one of these (Cluster B), has 2 buildings remaining of the original 6. One of these (Building A) was occupied into the present century and the site and orientation have not changed. The original byre-dwelling was about 44 feet long by 19 feet wide (13.5 m x 5.8 m) later extended to about 97 feet (29.5 m) in length. Cruck-couples supported the roof up to the time of abandon-ment - not essential in the latterly mortared stone-built walls. There is good evidence here of continuity, and perhaps almost 200 years of continuity, in the same location, with some alterations but also with retention of archaic structural elements well past the time of their functional necessity. The same can be said for other areas, where houses were undoubtedly rebuilt or renovated from time to

time on the same lower courses. Positions remained unchanged although some buildings were extended and gable-end fire-places inserted. Other buildings may have had the crucks sawn off at wall head level and the cruck-supported roof replaced by a roof resting on the strengthened walls. Crucks were retained to a late date and even in buildings where they no longer exist their former presence is sometimes indicated by the filled-in slots or by a broken- or sawn-off cruck stump.

As mentioned above, there are many verbal descriptions of houses and building materials for the 18th century, but few drawings or other illustrations. Burt's illustration of Highland buildings is shown at Plate 108. There is a description of farmhouses in Wester Ross in a report to the Board of Trustees for Fisheries and Manufactures in Scotland in 1754: "The side walls are made of stakes stuck into the ground, which are wattled with the branches of trees, outside of which is a wall of turf, with divots turfed over it like slates. The roof is supported with coupled trees fixed in the ground. These are wattled with small wood, over which divots are laid, and then it is thatched with straw, stubble or ferns". This could be the type of building shown by Burt, and it certainly agrees with his description (Appendix 28) of thin slices of turf (divot) used as tiling. It is almost certainly the structure of 'An Inn in Ross-shire' (Plate 109). Pennant's illustration of the exterior of a cottage on Islay (Plate 110) makes it appear to be large and solidly built of stone, but other descriptions suggest

that this could hardly have been the case and the drawing might in fact be of a mainly turf-built structure. The smoke-holes in the roof would be consistent with a hip-ended building whereas this has straight gable ends. The interior (Plate 111) is interesting for the furnishings, but the roof is far too shallow for the weight it obviously had to bear.

In the Tour in Scotland and Voyage to the Hebrides, Pennant's illustrator was Moses Griffith. The answers to some of the questions raised by the drawings of buildings in this book might lie in a closer examination of Griffith's original drawings, but there is also the possibility that some sites were described to him at second hand. Pennant's description of the 'Sheelins in Jura' (Plate 112) was of "... a grotesque group; some were oblong, many conic, and so low that entrance is forbidden, without creeping through the little opening, which has no other door than a faggot of birch twigs, placed there occasionally: they are constructed of branches of trees, covered with sods; the furniture a bed of heath, placed on a bank of sod; two blankets and a rug; some dairy vessels, and above, certain pendant shelves made of basket work, to hold the cheese, the produce of the Summer" (Pennant, 1790, I, 246). The structures in the Jura drawing are interesting because of the resemblance of the 'beehive' shapes to buildings sketched on his plans of Assynt farms by John Home (Figures 88-84), discussed above in Chapter 9.3. The 'wigwam' shapes were compared by Walton (1959) to the conical huts of charcoal burners in England (Plate 113) and he quoted the description of the construction

of such a hut in High Furness, Lancashire, in the 19th century, by H.S. Cowper:

> "First, three poles or young trees about 9½ or 10½ feet long and 4 inches thick at the thick end are set up as a tripod (Plate 113), the tops being fastened together by a withy. Then the intervening space is filled in with lighter poles, of which the ends, resting on the ground, form a circle just outside the ends of the three larger poles. The light poles overlap each other to some degree at the apex, but have slight intervals between them where they rest on the ground. There is also a gap left in one side for an entrance and this is filled in above with smaller poles. Finally, large flat sods are cut from the common, and commencing at the bottom these are laid on the poles overlapping each other like tiles until the top of the hut is reached ... These huts are provided neither with windows nor fireplace, the door forming the only aperture. In the one shown ... the internal dimensions are 7 feet 9 inches high, 11 feet wide, and its external height is close on 10 feet. The door is 3 feet 8 inches high, 2½ feet wide at the bottom, and 1½ feet at the top".
>
> (Walton, 1959, 61)

Such illustrations and descriptions of ephemeral structures are invaluable reminders of the missing elements among the field remains of settlements of the past two or three hundred years.

In the surviving remains of buildings constructed of more permanent materials there is often not enough to suggest the form of the upper walls or of the roof. The straight-gabled roof obviously came early to some parts of the Highlands. They are certainly prominent in the sketches on John Home's

1774 plans of Assynt (Figures 82-84), but he also shows other buildings of unusual shape and non-stone construction which may have been outhouses or even sheelings. With most early sites reduced to foundation level or only a few courses of walling surviving, it is difficult to know where houses were hip-roofed (Plates 106 and 107). The presence of non-gable hearths and cruck remains should be a good indication of the hip-roofed building, but the retention of 'anachronistic' features is a warning against uncritical acceptance of the evidence.

Some of the remains in Perthshire and Sutherland could therefore be said to be typical of the Highlands as a whole insofar as they represent the final vestiges of settlement evolution over a long period, but ending at different points on the time-scale 1750-1850 because of improvements, rationalisation of holdings and clearances for sheep. Many seem to offer evidence of only the last phase of occupation before abandonment, other sites may have remains of more than one period - not easily recognised without excavation. The socio-economic system which produced the physical remains had altered greatly through time. There were undeniable Celtic elements, but these had been modified by whatever degree of feudalisation had occurred, by clan custom and by local usage. The picture is further blurred by the late adoption and retention of ideas and techniques which had already disappeared from other regions of the British Isles and by the necessity for adjustment to what was in many areas a difficult environment.

12.3 Some General Conclusions

1. That the process of settlement growth, colonisation, splitting, expansion, contraction, building and rebuilding was continuous on many Highland townships until terminated by improvement or clearance.
2. That site-name continuity can be shown by some forms of documentary evidence such as the Great Seal, tenant lists, Hearth Tax Rolls, rentals, court books and others, whereas estate plans usually show only one phase, and often a late phase, of historical development.
3. That remains do survive which can be matched with 18th century plans, including buildings which may have been partly rebuilt with mortar and extended in length, but which stand on the same site and have the same orientation as those shown on the plans; but in many areas there are clusters, recorded in early plans, of which no trace remains, even where building in stone had begun.
4. That many 18th/early 19th century land surveyors showed only some of the existing buildings on estate plans and that their recorded information varies widely in consistency and quality.
5. That only by examining remains in the field in association with plans and maps can a realistic assessment be made of the quality of the cartographical evidence.

6. That colonisation of shieling areas for arable and, eventually, settlement, had been proceeding since at least medieval times, but was greatly accelerated in some areas, such as Assynt, by population growth and land scarcity after the mid-18th century.

7. That because of the overall population growth, the non-tenant groups (crofters but more particularly cotters) on many Highland townships were increasing at a rapid rate in the late 18th/early 19th century, forming a sometimes illegal, unofficial and, in terms of records, almost invisible sub-stratum of the agricultural population.

8. That differences in economy and settlement between Lochtayside and Assynt in 1769-74 seem to have been due mainly to environment and population pressure. Assynt was tilled almost entirely by cas chrom, whereas the plough was the main implement on Lochtayside. Due to a rocky and fragmented landscape, the quality of infield in Assynt was much poorer than on Lochtayside. Assynt was colonising sheeling areas for arable and settlement but this process was not evident on Lochtayside. Some Assynt farms had no tenants as such, but rather groups of occupants, of the status of perhaps cotters or servants, who looked after the grazings. The development from single- to joint-tenancy farms in Assynt between 1766 and 1775 was not paralleled on Lochtayside where population pressure on the land was perhaps not so great and where single-tenant holdings (e.g. Appendix 8) were beginning to develop. There was a greater density of

population per areal unit in Assynt than on Lochtayside and the Assynt population was concentrated in large, usually single clusters, whereas the Lochtayside settlement cluster was a smaller unit with two or three scattered across each township.

9. That despite extremes of physical environment, human factors have been strong in the development of settlement forms, particularly in the retention of 'archaic' features.
10. That in its so far limited application, archaeological excavation has not produced much evidence of pre-18th century occupation of the sites examined, but has shown its value in revealing much more evidence of construction, reconstruction, superimposition, re-alignment, function and re-use of buildings in the late 18th/19th century than could be obtained by normal fieldwork.

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farm and only one settlement cluster. Tomour had only one isolated building, no clusters at all, but this was a large grazing farm joined to Suckoch under one tenant and probably an exception at the time.

A considerable variation can also be noted in the size of clusters:

North Side

A sample of 25 farm townships with 79 clusters containing 479 buildings, plus 126 yards. Also 16 isolated buildings and 4 isolated yards.

3.16 clusters per farm

6 buildings per cluster

19.8 buildings per farm (including isolated buildings)

1.6 yards per cluster

5.2 yards per farm (including isolated yards)

South Side

A sample of 29 farm townships with 54 clusters containing 297 buildings, plus 77 yards. Also 31 isolated buildings and 4 isolated yards.

1.86 clusters per farm

5.5 buildings per cluster

11.3 buildings per farm (including isolated buildings)

1.42 yards per cluster

2.79 yards per farm (including isolated yards)

North and South Lochtayside

A total sample of 54 farm townships with 133 clusters containing 776 buildings, plus 203 yards. Also 47 isolated buildings and 8 isolated yards.