The Changing Rural Geography of Scottish Lowlands (1700-1820):
A Study of Changes in Landscape and Economy, as Revealed for
Certain Regions by Contemporary Estate Plans and Papers, and
Examples of the Enduring Effects.

A Critical Selected Bibliography of Estate Plans.

Thesis

presented by

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CLYDESDALE.

Clydesdale is practically coincident with the county of Lanark, and comprises three distinct divisions or wards, corresponding to the upper section of the basin in the Southern Uplands, a middle section through which the Clyde flows in a rejuvenated trench, and the open lowlands of the lower section. Estate plans representative of each of these divisions have been examined, but the region selected for special study is middle and lower Clydesdale, the greater part of which was held in the eighteenth century by the ducal family of Hamilton. The Dukes of Hamilton, Brandon, and Chatelherault held widespread estates in Scotland, England, and France, and their residence at Hamilton, which was enlarged in 1705, and by the nineteenth century had become one of the largest buildings of its kind in Scotland, was a palace befitting such a powerful and wealthy family. (See Fig. IV, 1). The extensive Clydesdale estates belonging to the family, were administered during the eighteenth century by a considerable number of officials, and since detailed information is available about their activities and the development of the lands at that period, it has been decided to devote a section of the chapter to consideration of this, and to give as introduction an outline of the development of the region as a whole, during the eighteenth century.

Progress and Change in Eighteenth Century Clydesdale.

Clydesdale occupies a middle-west position in central Scotland
and had been crossed from time immemorial by well-trodden paths leading from Edinburgh to towns of the lower valley of the Clyde, and by way of Hamilton or Lanark to towns of Ayrshire. Wight in his Survey of Lanarkshire, made reference to the long-established practice of sending veal in creels on horseback to Edinburgh from the moors of Strathaven and Glassford, and it was along this route leading from Hamilton towards Ayrshire, that the earliest enclosures of the ducal estates—beyond the actual environs of Hamilton—were made. This road became in 1755 the first Turnpike to cross the region.

The first mail coach from London to Glasgow did not venture through Clydesdale until 1788, but before that date the growing importance of Glasgow was making itself felt at least as far up the river as Lanark. Produce, such as oatmeal from Lanark parish and fruit from Clydeside orchards, was sent to Glasgow during the first half of the eighteenth century, but of much greater consequence were the effects of the increasing prominence and prosperity of the port of Glasgow, which accelerated the industrial development of the basin. Impetus was given to the home industry of spinning and weaving wool and linen, and prior to the advent of the cotton industry in the seventies, textile workers, colliers and quarriers were coming into Clydesdale to settle in villages along the main roads. The part-time labour supply available for furthering works of land improvement, was augmented by periodic outflow from Glasgow of Irish and Highland immigrants who worked

Fig. IV. 2. Halcraig (1766), Carluke Parish.

Note section of meadow disjoined from the rest of the farm.
as day labourers on farms. Wealthy merchants from the city invested money in the purchase of small estates, and directed their business instincts towards improvements.

Naismith in his Survey of Clydesdale, remarked that the smaller estates could readily be recognised, by the superiority of their improvements, but this was doubtless due in part to close personal supervision by the laird.¹ The estate plans of Haleraig (See Fig. IV, 2) and of The Ross (See Folder - 13, Map) show two such small estates, which were almost completely enclosed by 1765. Entailed estates, which were not open to purchase, commonly compared unfavourably with estates held by wealthy industrialists, and provoked adverse comment. The writer of Lanark parish account declared that the bane of all improvements was an entailed estate.²

There was no fuel problem in middle and lower Clydesdale, which had more than its share of coal and limestone, and also extensive peat mosses. Limestone outcropped in greatest abundance along the rim of the coal basin, but lesser outcrops were well distributed. According to the Hamilton papers, lime was worked at Limekilnburn in Hamilton parish during the seventeenth century, and it was used extensively in all the central ward and parts of the Upper ward, throughout the eighteenth century. Great incentive was thus given to land improvement and the improvement of mosses, argillaceous Gair Limestone from Dalserf

¹ Naismith, General View of Clydesdale, 1793, p. 44.
² Old Statistical Account, Vol. 15, p. 3.
being sent as far as the moors of Lesmahagow, to aid the improvement of peat bogs. According to Wight, general allowances of lime were commonly given to tenants, and this was markedly the case on the Hamilton Estates. In a notebook dated 1765, reference is made to a tempting clause inserted in advertisements of farms to be let on lease, with the remark that "nothing will tempt the Tenants more to come up to the proposed Rent than a premium of lime, nor can any thing be more for the Duke's interest." (October 16th). A factor taken into account when rents in Lanarkshire were fixed, was nearness to lime. Outcrop coal mines were worked in the Avon gorge towards the end of the seventeenth century, and by the middle of the eighteenth century, workings were on a sufficiently large scale to be a lucrative source of income to the ducal family. In the seventeen-seventies, annual revenue from this rose from about £700 sterling to almost £900.

Although, generally speaking, Clydesdale is prone to heavy boulder clay soils, rainfall over thirty-five inches annually, and marked peneplanation, with the consequence that, before improvement, about forty-two thousand acres or almost a third of the middle ward, consisted of moss, there are marked differences in topography and climate which had considerable bearing on development during the eighteenth century. The most striking

1. "Hamilton Estates" refers to the ducal estates in Clydesdale.
contrast was to be found in the relative backwardness of the moorland rim which surrounds middle Clydesdale compared with the rest of the region. To the south, in Lesmahagow and Lanark parishes, the monotonous surface of the Upper Lowland Peneplane - commonly here about seven hundred feet - which floors much of the valley in Upper Clydesdale, is encountered. This surface, developed on an outcrop of basaltic lavas, is continued north-westwards to form the western rim of the basin, separating it from Ayrshire. Moorland at seven hundred feet is encountered in Hamilton and Glassford parishes, and the steep slopes of the ridge farm Dechmont Hill (602 feet) in Cambuslang parish (Drumsargate Barony) whose light stony soils contrast with the heavy clays of the lower carse lands. The moorland divide to the north-east of the Clyde, especially in the vicinity of Shotts, where average altitude is between eight hundred and nine hundred feet, is still singularly bleak and moorish, and its stubborn resistance to improvement gave rise to the ejaculation entered in Journal 1778 (Aug. 7). "I'm sorry to tell you that I could wish from my heart that his Grace were quit of his moorland Farms in exchange for Lowland farms." ¹ Although according to the Old Statistical Accounts, most of the lower parishes of Clydesdale were mainly enclosed by the end of the eighteenth century, enclosures were scarce on the high moorlands of Lanark, Lesmahagow and Glassford. In Lesmahagow, the old distinctions of croft and outfield were still being kept up at the end of the century, and

¹. It is not clear which officer made this remark.
(See Folder Map 24).
the old Scotch plough, quite unimproved, was almost universal.\textsuperscript{1} The minister of Glassford said that the spirit of improving had not yet reached the upper parts of his parish, and that the farmers read no books on agriculture, nor sought the company of those that might inspire.\textsuperscript{2}

Below the slopes edging the Upper Lowland Peneplane, the rocks of the coal basin have been eroded to levels of varying heights. A marked erosion surface south of Larkhall on which were to be found some of the farms of Dalserf Barony (Folder 19, Map), lies between four and five hundred feet. The level stretches on either side of the Clyde Trench, which to-day are relatively bare of trees and windswept, contrast strongly with the sheltered slopes and floor of the incised valley - which extends roughly from Lanark almost to Hamilton - where the growth is conspicuously luxuriant. Here the effects of shelter, loam soils, and a sunnier and more congenial climate than is found elsewhere in Clydesdale, were apparent in the eighteenth century. According to Naismith, orchards embosomed in woodland were found on the lower slopes of the Clyde valley from the Fall of Stonebyres to the mouth of the River Calder near Hamilton.\textsuperscript{3} The evidence of estate plans substantiate this statement.

Variations in slope, and the interspersion of patches of fluvi-glacial deposits with clay soils, gave considerable variety of soil type, and this was particularly marked on the

\begin{enumerate}
\item Old Statistical Account, Vol. 7, p. 427.
\item Ibid., p. 142.
\item Naismith, 1798, pp. 28 and 101.
\end{enumerate}
Fig. IV.3. Sketch made from the reconstructed plan of Borland Farm, Lesmahagow Parish. c.1770. The plan has been torn into fragments, and is crumpled and faded.
fringes of the upper moorland surface. Lying close to the
fermtoun of Borland in Lesmahagow parish, were to be found
patches of arable land, pasture, muir, moss and meadow. (See
Fig. IV, 3).¹

In this region, where there is considerable diversification
of landform and of climate — degree of slope being an important
factor — and where the financial benefits of the early indus-
trial period were not equally shared, no facile generalisation
can be made. The danger of using criteria such as the period
of general adoption of new crops, type of plough in use, or
amount of land unimproved, in the assessment of progress
achieved in a region, is also manifest.

It is evident from study of the Journals of the Hamilton
Estate, written in the fifties and sixties, that clover and
ryegrass, potatoes and wheat, were crops commonly cultivated
on the estate, the wheat being confined mainly to the lower
lands of Hamilton and Cambuslang parishes. In the sixties the
tenants of Cambuslang appear to have been practically paying
their rents from the sale of clover and ryegrass to Glasgow
merchants, and sown grasses were coming into general use in the
Upper Ward by the end of the century. At that time according
to Statistical Accounts turnips were beginning to be appreciated
in the Upper Ward and farms of the seven hundred foot surface,
but at least twenty years earlier the Hamilton Estate officials

¹. The plan (1770 or earlier) is in crumpled shreds, and
could not be photographed.
knew the value of the crop, although turnips were not generally
grown on the more fertile lands of lower Clydesdale. Naismith
accounted for this, by stating that the lands were too highly
rented for turnip husbandry to give a good enough return, and
with the growing demand of the industrial population for
potatoes, potatoes were substituted as being a more profitable
crop. Doubtless turnips were purchased from Glasgow dealers.

The use of the term "Scotch plough" is misleading, because
by the middle of the eighteenth century numerous versions of it,
some of them much improved, were in use. This is borne out by
the statement made by the minister of Lesmahagow parish, that
except in districts near the Clyde "The Scotch plough, nearly
in the same state as it has been for this century past, is almost
universally used." At the end of the century an improved
version of the Scots plough drawn by three or four horses was
that most commonly in use in Hamilton parish, although it was
said that different kinds of newly invented ploughs drawn by
two horses and worked by one man, were also in use. An undated
report of 1771 in one of the Hamilton Estate Journals, refers to
the purchase of new ploughs from a merchant at Leith, but
generally speaking, from Hamilton and Blantyre parishes to the
moorland rim, there seems to have been a preference for the
improved Scots plough. This may be attributed mainly to the

1. Naismith, 1798, p. 74.
4. Naismith, 1793, p. 76.
prevalence of heavy clay soils. Naismith explained that on "stiff land" the improved Scots plough was generally used for the first turning of fallow land, while Small's plough, with or without chain, was commonly used for subsequent ploughings.

Leases of nineteen years were usual at least in middle and lower Clydesdale by the end of the eighteenth century, and according to Naismith, where there were "extraordinary improvements" they might be granted for thirty-one years or longer. On sheep farms however, leases were commonly short, as apparently improvement of these had not begun by the end of the century. Certainly little improvement had been made on the Sheep Walk of Wilsontown by 1811, according to the plan (No. 41 in List of Plans). Long leases were customary on the Hamilton Estates by 1765, and during the seventies and eighties, the Duke of Hamilton settled weavers in the village of Larkhall, granting them leases of ninety-nine years.

According to the 1765 Rental of the Hamilton Estates, rents seem to have been paid purely in money, there being no mention of either carriages or services on the Duke's behalf. Naismith stated that by the end of the century, rents were mostly paid in money, although a few landlords still exacted some fowls. There was still some thirlage on the ducal lands and elsewhere, but Naismith remarked that this applied only to oats.

In the fifties, work was progressing on the new Turnpike

1. Naismith, 1798, p. 66.
2. Ibid., p. 66.
3. Ibid., p. 33.
roads, and John Burrell, was recommending that within three miles of projected roads, all types of labour whether town or country, rich or poor, high or low should be called out, note being made of the ploughs, carts and horses in each man's land, so that "composition money", if desired, might be fixed. 1

It would seem therefore that there was much to encourage the improving landlord or tenant, at least in the more favoured parts of eighteenth century Clydesdale. There was no scarcity of either fuel or lime, and perhaps as a consequence of this, there is no indication that tenants in any part of the middle or lower wards were burdened with a load of services and carriages. Industrialisation stimulated early construction of turnpike roads, brought wealth into the region and great numbers of people, who at first gave part-time labour on the land. Farmers began to cater for the growing urban markets, while conforming to the natural aptitudes of the region, so that during the eighteenth century, the agricultural economy began to follow the lines which are still prevalent to-day.

Naismith observed that from time immemorial milch cows and their young had been pastured on the flat marshy meadows of the lower lands of Middle Clydesdale, and attributed the fertile loams of the old croft lands to the enrichment of their dung 2. Mention is made in the Old Statistical Account of Stonehouse of the fact that dairying was so important and profitable,

1. 1753, pp. 119 and 120.
2. Naismith, 1798, pp. 95 & 96.
that the farmer generally could pay half, and in some parts, the whole of his rent, by the produce of the byre. Calves were fattened for veal, and usually fetched from one to four pounds sterling each.¹ In the latter half of the century the production of butter and cheese increased in the middle ward, especially in the high moorland farms, and in the upper ward. Reference is made in the parish account of Lanark to the laying out of old croft lands in pasture for milk cows, with consequent production of great quantities of butter and cheese. Under proper management the produce from each cow amounted to between four and six pounds sterling annually.²

Much of the enclosed land of different estates was let out in grass from year to year to graziers, who might give rent of more than ten pounds sterling per acre for pasture for their black cattle.³ There are references in the Hamilton papers to farms having been kept in pasture from 1770 to 1783,⁴ and there is a note to the effect that in 1782 the profits from grazing cattle on the Low and High Parks of the policies, amounted to a thousand and fifty-seven pounds sterling.⁵ Permanent flocks of sheep disappeared from most of the farms of the low-lying parishes when enclosure with ditch and hedge was begun, but by the end of the eighteenth century, the

2. Ibid., Vol. 15, p. 18.
4. 1783, pp. 55 & 56.
5. 1783, p. 94. (Low Parks - 564 acres. High Parks - 1162 acres).
present practice of wintering sheep was being adopted, as many as seventeen hundred or eighteen hundred being taken into the parish of Hamilton in a season. Increasing amounts of meat and mutton as well as butter and cheese were sent annually to Glasgow.

The preference for horses rather than oxen as draught animals, according to Naismith, was linked with the development of new roads. The lower lands of Middle Clydesdale were noted for their export of horses to other parts of Scotland, before the development of the Clydesdale breed in the early nineteenth century.

Liberal use of lime facilitated a striking increase of wheat production in the latter half of the eighteenth century, the Hamilton Journals recording good wheat being grown on farms standing as high as five hundred and fifty feet. (Stonehouse parish), There was a general decrease in acreage devoted to barley as wheat gained favour. It had been the favoured crop of the old croft lands, but was not so climatically suited to the region as oats.

According to Naismith, summer fallow was practised mainly on the lower grounds, presumably in the Middle Ward, but by the end of the century sown grasses were superseding peas and beans, and their use would gradually make summer fallow unnecessary.

Although it was occasionally stated in statistical accounts that the heavy clay soils of Clydesdale were not favourable to production of potatoes, the crop seems to have been grown, in all parts. "Every husbandman" in Lesmahagow parish planted potatoes, perhaps to half an acre a ploughgate, farmers in Stonehouse raised rather more - about ten or twelve bolls yearly, and "almost everyone" in Hamilton parish grew potatoes for food or fodder and often for sale. Hamilton tradesmen commonly rented plots at from four to eight pounds per acre and grew potatoes, which when ready for digging might sell at from twelve to eighteen pounds per acre. Lesmahagow parish account refers to small domestic quantities of flax being grown, and in Stonehouse parish it was customary for the farmer to sow a peck or a peck and a half of lint seed. The only reference to large quantities of flax being produced is made by Naismith, who stated that a good deal of flax was grown in Carnwath and East and West Monkland. At the end of the eighteenth century, about two hundred and fifty acres of the slopes and floor of the Clyde Trench, were devoted to the production of apples, pears and plums, gooseberries and currants, the yearly value of the fruit crop being about two thousand pounds sterling. Apple, pear and plum trees were grown in Dalserf parish in orchards, which the estate plans

4. Ibid., pp. 101 & 102.
show to be from one to two acres in size, and in hedgerows. Gooseberries, currants and other small fruits were sent to Glasgow and Paisley from this parish, the yearly value of the entire fruit crop sometimes being as much as four hundred pounds sterling.\textsuperscript{1} Hamilton, no longer noted for its fruit production, had its orchards during the eighteenth century, and there is a much quoted saying to the effect that a Hamilton man in the latter half of the century, might "cultivate his cabbage and smoke his cigar under his own apple tree in peace and quiet."\textsuperscript{2}

The progress of the enclosure movement in this region will be discussed later, but some of the repercussions of the movement may be touched upon at this point. The amount of rural depopulation is difficult to assess in the regions of industrial increment, but according to the statistical accounts, the larger towns and villages did gain at the expense of some of the rural population. Although farms of Stonehouse parish remained small, the country population diminished from six hundred in 1755 to four hundred and sixty-seven in 1795.\textsuperscript{3} The only two parish accounts which stressed depopulation are those of Hamilton and Shotts. In Hamilton parish, four or five "fine villages" were said to have dwindled in numbers during the course of the thirty years prior to the writing of the account, and land which formerly had supplied employment for three or four families, was said to

2. Origin unknown.
have come into the possession of one man. Rents being raised had bankrupt and driven out some tenants.\textsuperscript{1} It was said that the number of inhabitants of Shotts parish had been greatly diminished due to the enlargement of farms, that many farm cottages and even some steadings were in ruins, but that within the twelve years prior to the date of the account, thirty-five new cottages and three new farm steadings had been built.\textsuperscript{2} Depopulation due to enlargement of farms seems to have been more conspicuous and more universally deplored in the parishes of the Upper Ward. The author, for instance, of Libberton parish account spoke bitterly of the ruins of demolished cottages that were to be found in every corner of his parish, and of the dwindling in size of Libberton - a place of some note - to a few scattered huts.\textsuperscript{3}

The Hamilton Estate Journals give no indication of any deliberate policy of enlarging farms by the elimination of the small tenant, although this might come about by the ability of the more prosperous farmer to pay high rents for increasing amounts of land. Certainly there was an appreciation of the value of part-time tradesmen and a desire to settle them in smallholdings - a desire which according to the evidence of plans and contemporary accounts, was prevalent in the populous industrialised parts of Clydesdale. Naismith spoke of the tendency for the unmarried servant, lodged in the house to

2. Ibid., Vol. 15, p. 57.
replace the cottager, and attributed a new experience of scarcity of labourers partly to this, but said that some landowners were however letting out feu, usually along main roads and clustered into villages, for houses and small gardens to be possessed by part-time labourers. This may be seen well exemplified on the Dalzell Estate Plan (1774). Reference is made in the Appendix to Sir John Sinclair’s Report of 1814 to the success in Clydesdale and Aberdeenshire of smallholdings of from two to twenty acres let to farmers who depended partly on the produce of the holdings, partly on raising a young horse or a few cattle annually, partly on the management of a little dairy, and partly on job work.

An interesting contrast in attitudes is revealed in a report made on the condition of the Barony of Crawford and Crawfordjohn in the Upper Ward in 1771, at the request of the laird, by an officer of Hamilton Estates. The report commences with the observation that "the Present mode of letting as well as taking Farms in this part of the Country is By the Leting to one Farmer two, three, four or more Farms - By which practice the Tenant can afford to give more Rent because he saves the maintenance of 5, 10, 15, 20 etc. people that used to be maintained on these Farms. And it is a Fact the Landlord at present gets Higher Rents in this way than he did when the Farms were let Separately." There follows the admonition that land devoted wholly to pasture for cattle and sheep gives rise to a

1. Naismith, 1798, p. 54.
3. Journal, 1771, December 23rd. The Report is unsigned but may have been made by Mr. Burrell.
precarious economy dependent on a favourable market, and that such a system "flows from a Love to Business and indolence and a hatred to Cultivation and improvement. Because the latter can not be caryed into execution without Activity, Attention and the Bodyly Labour of many.... It being an uncontraverted maxim That the greater number of individuales any Landholder can plant upon his Ground, the more he will increase its Value..... Provided attention is given to Trade and Manufacture as well as to Agriculture and minerology." The development of woollen and linen manufacture was accordingly advocated, and the reassurance of tenants who feared the loss of their leases.\textsuperscript{1}

Naismith declared that there was great competition in Clydesdale for leases, which was raising rents and the avidity of landholders to a great pitch.\textsuperscript{2} By the end of the eighteenth century the best enclosed lands near the River Clyde might be rented as high as four pounds sterling per acre in Dalselr parish to eight pounds or more between Hamilton and Glasgow, but there was considerable variation in rent, and much of the poorer land brought no more than five shillings per acre.\textsuperscript{3}

Outstanding changes effected during the forty years from 1750 to 1790 in Cambuslang Parish have been listed in the Statistical Account for the parish and may be summarised as follows:\textsuperscript{4}

\begin{enumerate}
  \item It is interesting to note that on behalf of the laird the reporter records the purchase of 400,000 two-year old Scots Firs, which were to come by sea from Aberdeen.
  \item Naismith, 1798, p. 68.
  \item Ibid., Vol. 5, pp. 252 & 253.
\end{enumerate}
1. Every farm had croft and field land.
2. Most runrig. Only a few enclosures round mansions.
5. Narrow and rough roads. Few small carts.
6. No acres.
7. No wheat bread, sugar and tea, consumed but by a few wealthy and fashionable people.
8. Little butcher-meat consumed; no fat cattle killed save for gentlemen, and some of the greatest farmers.

IV, 13.

1750
1790

1. No longer croft and field.
2. All farms divided and some subdivided with thorn hedges.
3. No baulks to be seen.
4. Straight ridges - proper swell and unequal in breadth.
5. Good roads passable at all times. About 170 large carts.
6. About 650 acres of wheat, hay made of clover and rye-grass.
7. Wheat bread eaten by all, sugar and tea taken occasionally by many.
8. A great deal of butcher-meat consumed; about a hundred fat cattle killed yearly for farmers, tradesmen and manufacturers.

The Estate Plans of Clyde style.

Estate plans covering a considerable part of Clydesdale, and representative of each of the prominent types of landform, have been examined. Although generally speaking, the collection is not noteworthy for excellence of execution, or state of preservation, its considerable value lies in the fact that a large proportion of the plans show the landscape either completely unenclosed or at early and tentative stages of enclosure.
Seventeen estates are represented, and although the Hamilton Estate collection, numerically and because of accompanying rentals and other documentary information, is the most significant, there is scarcely a plan which does not have some intrinsic interest. It has been noted in the introduction that unfortunately there has not been time to examine the large collection of rentals and other papers which accompanies the plans of the Douglas Estate.

Observation of the Hamilton Estate Rentals discloses the fact that the collection of plans dated between 1765 and 1770 is incomplete, and references are made in the Journals to plans which have not been discovered. The plans of this Survey undertaken by William Douglas were found in chests amongst hundreds of eighteenth, nineteenth and early twentieth century plans, some of them hidden in tight rolls containing an assortment of plans, so that a few may have been missed. A number of the plans were torn, faded, and in such poor condition that work had to proceed slowly, with the use of a magnifying glass, and photographing was not practicable. The earliest plan discovered was a plan showing alterations and additions to the Policies, dated 1708. Reference in a Journal of 1765 is made to "Watt's plan of 1730," but no plans of that date were seen. Subsequent to the Survey of 1765-70, another survey was made at the end of the eighteenth century and in the first decade of the nineteenth century to show the progress of enclosure and the new disposition of farms. The plans of this survey are black and white utilitarian...
drawings showing steadings, enclosures and boundaries. In the second decade of the nineteenth century another and more comprehensive survey was undertaken by various surveyors and plans produced at this time are the only ones that have been found for Shotts Barony, and for part of the Barony of Drumsargate (Cambuslang). Unfortunately the bundle of early plans proved so heavy and cumbersome, that it was not possible to carry samples of the later plans to Edinburgh for examination, although notes were taken of data shown on some of them.

Whenever it was considered that the amount of detail shown on a plan or its interest value, justified its inclusion on the 2½ inch tracing sheets, an attempt has been made to do so. It must be observed however that Ordnance Survey maps on that scale do not yet exist for the region south of Douglas, and therefore for plans of the Upper Ward as well as for one or two scattered plans which lie outwith the region covered by the sheets, and on the fringes of Clydesdale, reference will be made merely to photostats. When two or more plans for the same district have been examined, the data shown on the earliest plan has been entered on the tracing sheets. It has been decided to begin with a preliminary review of the data shown on the tracings, so that the reader may become familiar with the disposition of baronies and of individual farm plans.

Adjustment of Farm Patterns and Settlement Sites.

Account will be taken first of the disposition of farms, mosses, settlement sites and roads as shown on the plans, without
consideration of indications of change and development.

(a) **Clydesdale - Northern Sheet**. (Folder 18) and **Southern Sheet** *(Folder 19).*

**Northern Sheet.** Hamilton stands close to the junction of the River Avon with the Clyde, and all the lands shown on the left bank of the river with the exception of The Ross (1765) beside the junction of Clyde and Avon, the small Eddlewood Estate (1829) and Earnock Muir (1826), belonged to the ducal estate. (Plans from 1708 to 1772). On the right bank Park of Bothwell, a section of Motherwell Lands and 'Bet's Mairlin' belonged to the Hamilton family, but the largest estate shown is that of Dalziel, which lay between the River Calder and the Clyde. (1774). Between Dalziell Estate and Woodhall (1809) is the estate of Jerviston. (1792). Farm boundaries are not shown clearly on the plan of Woodhall or on that of the Barony of Overton (1830, but based on a plan of 1811). The Plan of Bothwell Policies (1787) was found amongst the Douglas Estate plans.

**Southern Sheet.** All the plans shown on the left bank pertain to the Hamilton Estate (about 1770), and on the right bank are the two small estates of Mauldslie (1835) and Halclerig (1766).

Both sheets show a relatively straightforward disposition of apparently unified farms, with little obvious interjection of farmland, but it is known that some of the large farms of over three hundred acres were possessed by a number of tenants.
whose possessions might lie in a kind of interjected rundale.¹

A few instances of interjection will be observed presently on farmland lying above five hundred feet, and it appears to have been common for isolated patches of meadow or haugh land lying near to the River Clyde to have been possessed by lairds or tenants of lands nearby. Thus three isolated acres of meadow land were possessed by the laird of Halcraig in 1766 (See Fig. IV, 2), a small patch of meadow was said to be part of Bothwell Castle Policy, and the tenant of Carshogle Farm in Dalziell Estate possessed a section of the haugh on the opposite side of the Clyde from his farm.

The first class of farms to be discussed is that which fronted the River Clyde, or a tributary stream. Although the farm of Park of Bothwell (North Sheet, right bank) did not actually reach to the River Clyde, it well exemplifies this class, having the strip shape most strikingly shown in farms lining the tributary streams, and the large acreage (267) typical of the Clydeside farm from Cambuslang parish to Crossford at the junction of the River Nethan with the Clyde, above which place, the valley floor begins to narrow and slopes to steepen. Bothwell Park had a share of the haugh meadow land, and the fermtoun stood, as the steading stands to-day, on the edge of the terrace overlooking the flood-plain. Much of the low-lying land near Hamilton was occupied by the policies of Hamilton Palace, The Ross, and Dalziell House, and it is on the

¹. Hamilton Journals. This will be discussed later.
bank opposite to Dalziell House that the continuous line of
large farms begins, that stretches from Allanton Farm to 1 upstream
Overton Farm near Crossford. According to the Hamilton Rental
of 1773, the farms pertaining to the estate, and their acreages
were as follows:-

<table>
<thead>
<tr>
<th>Farm</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allanton</td>
<td>254</td>
</tr>
<tr>
<td>Merryton</td>
<td>576</td>
</tr>
<tr>
<td>East and West Highlees</td>
<td>296</td>
</tr>
<tr>
<td>Skellyton</td>
<td>430</td>
</tr>
<tr>
<td>Cornsilloch</td>
<td>300</td>
</tr>
<tr>
<td>Dalpatrick</td>
<td>302</td>
</tr>
<tr>
<td>Overton and Clydesmill</td>
<td>314</td>
</tr>
</tbody>
</table>

The settlements of each of the first five on the list were
situated on the crest of the terrace overlooking the flood-plain,
while Dalpatrick and Overton fermtouns stood on the inner edge
of the flood-plain, amidst orchards. According to the Tables
of Contents shown on the plans, not one of these farms contained
any moss or moorland, and Easter Highlees alone had more than
ten acres of land not termed arable. 1 The photostat of Easter
and Wester Highlees (Folder, 26 - Photostat) shows compact
arable land, unenclosed and yet fairly regularly disposed, the
rigs usually following the direction of slope. These large and
favoured farms might have considerable fermtouns, the lay-out of
which gives the impression that they were shared by substantial
tenants. (See Folder, 21 - Map). The road which proceeded from

1. Figures were not available for Skellyton or Cornsilloch.
Skellyton coal pits towards Hamilton by Merryton and Allanton, has disappeared, but part of the route taken by it is followed by modern field boundaries. 1

Lining the River Nethan in Lesmahagow parish (South of the Southern Sheet), is a row of strip farms, each of which, with the exception of North Over Auchtigemel, had a share of the steep slopes of the incised valley down to the water edge. None of the farms was larger than a hundred and fifty acres, although the rundale of South with North Over Auchtigemel gives the impression that these two farms had recently formed a unit of about a hundred and seventy acres. Most of the steadings or fermtouns stood on the crest of the valley slopes, at an altitude of about six hundred feet. The 1814 Plan of the Barony of Lesmahagow shows the strip formation in more pronounced fashion, the new boundaries drawn in pencil on the earlier plan having been adopted. 2 (See Folder, 22).

Another line of farms may be seen extending along the west side of Dalserf Barony, beside Cander Water, from Canarside' in the north to 'Canar Water' in the south, the steadings being placed usually on the brow of the slope overlooking Cander Water. Most of these farms, all but one of which are still in existence, were considerably less than a hundred acres in size.

The Estate of Jerviston (Northern Sheet - 1792) shows five small possessions each less than twenty acres in size on the banks of the River Calder. These may have been given to tenants

1. Merryton Farm is associated with the development of the Clydesdale breed.
2. Kerse's Auchtigemel has subsequently vanished.
dispossessed from the older fermtouns. The plan of Overton Barony (1830 based on plan of 1811) shows the now familiar development of smallholdings connected with fruit-farming in the Clyde Trench. (S.E. of 18)

In the second category, are plans showing farms on lands near Hamilton, with a pronounced slope. Hamilton Palace stood on the inner edge of the flood-plain, and from the entrance gates to the Policy, the ground rises steeply and almost continuously southwestwards until the seven hundred foot surface is reached. It is apparent that until enclosure began, farms of between a hundred and two hundred acres, and often of less than a hundred acres, were usual. The large farm of Bent and Neither Holanbush (244 acres) which was ninety per cent enclosed in 1770, had obviously been formed by consolidation of a number of possessions, and the photostat of Hamilton Barony (Folder 27) shows that this had also been the case with the large farms of Boghead (378 acres) and Cornhills (317 acres), although these farms lay partly on the moorland surface. The photostat shows the Barony in a transitional stage, but it is apparent that the farms of the lower slopes were mainly small, with modest steadings or fermtouns, and that Blackbog Farm lay rundle with the lands of Carscallan. A remarkable proportion of arable land is shown on the higher unenclosed lands, the rigs again following the direction of slope, and some fields being divided in two by a long head rig.

1. Jerviston was completely enclosed in 1792.
Fig. IV.4. Windswept trees on the five hundred foot surface, close to Cander Moss.
The plans of the interfluvial Dalziell Estate defy classification, varying as they do from the enormous farm of Motherwell in the north-west, to farms of between a hundred and two hundred acres in the south-east, where also are some smallholdings which will be discussed later.

On the interfluvial erosion surface standing between five and six hundred feet, which separates the Clyde Trench from the Cander Valley in Dalserf parish (Southern Sheet and Fig. IV, 4) was to be found what may be termed a radial type of farm. Five of the seven farms of Draffen radiated in segments out from the large fermtoun, which stood centrally placed amidst six hundred and eighty-four acres of farmland. (See Folder 21, and 28 - Photostat). Roads, some of which have disappeared, may be seen branching in all directions from the loan of this village-like settlement, one to Cander Moss, one to join the main road to Hamilton, two to Corra Mill, one in the direction of Dalserf and another towards Lesmahagow. By this method it may be seen that sections of croft and outfield land might be shared by the tenants, although two of the farms lay on the fringes of the farmland and the tenants of these did not appear to share the central croft acres. According to the Table of Contents, forty acres only of this arable farm were devoted to woodland or pasture. The name 'Southfield', shared by the two adjacent strip farms suggests that this ancient possession of the Hamilton family may at one time have been even larger.

To the north-west of Draffen, the farms of Muirhead (74 acres),
ROADS

SKETCH of ROADS

Leading from Shotts to Forreid.
Through the Lands of Popperhill.

Drawn by R. Black.
1824

Modern Roads and Settlements.

Roads and Settlements no longer in existence.

A scale of chains 10 feet each.

Shotts

Poppleshall

North Newland

South Newland
Disappearance of old kirk roads, and construction of new roads along the line of march dikes.
Green Hill (146 acres), Brumfield (149 acres) and Loch Head (143 acres), may be seen radiating from Canar Moss Common (at that time 70 acres), in which each of these farms claimed a share. If at one time Burnhead (69 acres) had been combined with Muirhead, there would then have been four farms, each linked with the Moss, and each between a hundred and forty and a hundred and fifty acres in extent. The 1814 plan of Dalserf Barony (Folder, 20) shows a new disposition of these farms, which by that time had been laid out more compactly, without regard to Canar Moss.

The district of Dalserf and Lesmahagow exemplifies well, change in the network of roads with changing economy. Numbers of the pre-enclosure roads, aligned towards the local mosses of Canar and Thripwood, towards the barony mill of Corra, and from remote farms of the Hamilton Estate, (for example Hallhill in Lesmahagow) towards Hamilton, were destined to disappear. It may be seen that the settlements of Brumfield, Green Hill and Burnhead farms were situated close to an old road leading to Hamilton. Figure IV, 5 shows old and new roads and settlements in the district of Papperthills near Shotts (Sheet 26/86 86/65), and exemplifies well the disappearance of old 'kirk' roads with enclosure, and the construction of new roads along the line of march dikes.

Another example of farmland extending towards a common moss may be seen on the plan of the Lands of Rodgerton (Northern sheet -

1. P. 54 Rental 1773. The 1773 Rental shows that at that time Burnhead and Muirhead were combined.
north-west corner, and Folder 29 - Photostat). At least two of
the three possessions shown on this plan tapered towards the
Tunnoch Moss, which stood on the smooth summit of a hill 675
feet high. This plan shows a scattering of rocky pasture with
whins and land termed 'meadow'. The plan of Drumsargate Barony
(1817), (See Folder, 23 - Map) shows that farms in this upland
district of Cambuslang parish were less than a hundred and fifty
acres in size, and illustrates another type of radial disposition
of farms. North and South Flemington and the three Letterick
Farms may be seen, lying in radial fashion on the slopes of
Dechmont Hill. The farm of Coates (352 acres) was typical of
the large arable and fattening farms to be found at the end of
the eighteenth century on the haughs and lowlands of the lower
Clyde, and it may be observed that the seven farms totalling
465 acres, which also lay close to the Clyde, were subdivisions
of the farm referred to in the 1773 Rental as Hallside (524 acres).

The interesting plan of the Barony of Covington (1776) may
be taken as a final illustration of radial lay-out of farmland.
(See Folder 30 - photostat, and Sheets 26/94 and 26/93). It is
apparent that the rather complicated pattern of farms, some of
which were lying interjected in 1776, developed from an original
three-fold wedge-shaped division, each segment tapering from the
lowland near the Clyde, over the eminence of Harelawcairn
(summit 1050, feet) towards the moss shown, and numbered '94'.
The two major settlements were situated on the lowland near the
Clyde, the northern group of steadings being on a low terrace,
and there was a secondary development of smaller settlements on the slopes, which will be considered later. The road leading towards the moss, passing north of Harelawcairn, has disappeared.

Plans of farms lying on the moorland rim surrounding Middle Clydesdale may be seen represented on the Northern Sheet. (High Muirhouses (130 acres), Laigh Muirhouses (147 acres), Earnock Muir (acreage unknown) and the upper farms of Hamilton Barony - which with regard to land-use were not typical), and on the Southern Sheet (Bogside (103 acres), Borland (acreage unknown) and Auchtool (170 acres)). Inset in the Southern Sheet is the plan showing the farms of Drumclog (236 and 211 acres) and Snabb (119 acres) in upper Avondale. Examination of these plans revealed a noticeable increase in the proportion of outfield to infield, of pasture and meadow to arable land, when compared with the farm plans previously considered. Most of the farms lay on undulating rather than level land, with the consequence that patches of what was termed "bent and misk pasture" were more prevalent than stretches of marsh or meadow. Fermtouns or steadings frequently were situated near a spring and rivulet which gave rise to a stretch of reedy misk pasture. (See Folder 25, High and Laigh Muirhouses). It may be seen that these farms were generally over a hundred acres in size, and some such as Borland (in Lesmahagow parish), comprised a few hundred acres. (Borland fermtoun shown on Folder 21 - Map).

It cannot be said that the moorland farms conformed to any definable pattern, although they were typically compact in shape.
Those farms, however, which were adjacent to a common muir exhibited the typical strip formation, having a narrow frontage on the commonty. Auchtool (Southern Sheet, Lesmahagow) had a frontage on the Broken Cross Commonty, and some of the strip farms which lined the southern boundary of the Commonty may be seen on the photostat of the Estate of Douglas (Folder, 31). On the south side of Douglas Water, narrow strip farms, and the Lands of Douglas Town may be seen stretching up toward the common hill pasture.

Large rectangular-shaped farms, were typical of the moorlands of Shotts, and blocks of the farms lay interjected with lands not belonging to the Hamilton Estate. 1 According to an abstract of 1813, six of the ten farms shown, amounted each to over five hundred acres, and at that time roughly half of the acreage was arable land, which lay in scattered patches amidst sodden meadow and moorish pasture. A higher proportion of arable land was found in the small possessions, formed by the subdivision of Moffat Hills Farm. (North-west corner of the Sheet). It may be noted that a number of peripheral possessions or pendicles are no longer in existence.

The findings of this survey may conveniently be classified in the following summary : -

1. See Folder 24 - Map. Barony of Bothwellmuir, 1813.
iv. Merryton steading, on the edge of a terrace overlooking the Clyde.

Fig. IV.6. Merryton steading, on the edge of a terrace overlooking the Clyde.

Fig. IV.7. Farm of the moorland rim at seven hundred feet.
Farm Pattern Types.

1. **Strip Farms.** (a) Strips fronting a river, assuring shared distribution of the types of land encountered in the valley cross-section.
   Examples - Farms of Clydeside, Nethan-Water and Cander Water.

   (b) Strips lying at right angles to the boundary of a considerable moss or common, assuring a frontage and consequent share in the common for a number of farms.
   Example - Farms adjacent to Broken Cross Common, Lesmahagow.

2. **Radial Type.** (a) Wedge-shaped farms radiating from a moss of restricted extent, such as that to be found on the summit of a hill.
   Examples - Farms surrounding Canar Moss, Tunnoch Moss, and the Moss of Conington Barony.

   (b) Farms grouped radially round the slopes of a hill whose summit presumably at one time provided common pasture.
   Example - Farms on the Slopes of Dechmont Hill.

   (c) Farms radiating from a considerable fermtoun.
   Example - Draffen.

3. **Compact Farms.** (a) Farms lying on high moorland surfaces.
   Examples - Farms of Earnock Muir, High and Leigh Muirhouses and Drumclog.

   (b) Rectangular farms of Shotts moorland.

   (c) Consolidated farms on marked slopes.

Farm Acreage.

1. **Large Farms of over 500 Acres.**

   (a) Farms of haughs and lowlands adjacent to the Clyde.
   Examples - Hallside, Motherwell, Merryton. (See Fig. IV, 6).

   (b) Farms of erosion surfaces of middle Clydesdale.
   Example - Draffen.

   (c) Poor moorland farms - Examples - Barony of Bothwellmuir.
2. Farms between 200 and 500 Acres.

(a) Farms of the Clyde Lowlands and Trench. Examples - All the Hamilton Estate farms in the Trench, except East and West Highlees.

(b) Enclosed and consolidated farmland on slopes above Hamilton. Example - Bent and Neither Holanbush.

(c) Farms of the moorland rim at seven hundred feet (other than Shotts). Examples - Drumlog, Borland, Boghead. (See Fig. IV, 7).

3. Farms of less than 200 Acres.

(a) Farms lying on pronounced slopes. Examples - Thornhill, Chapel, Blackbog, etc. (Hamilton Barony) Rodgertons Farms of Greenlees and Turnlaw (Cambuslang).

(b) Strip farms lining the valleys of tributary streams. Examples: Farms of the River Nethan and Cander Water valleys.

4. Farms of less than 50 Acres.

(a) Smallholdings fronting a tributary valley. Example - Holdings of Jerviston Estate by the River Calder.


(c) Moorland intakes of Dalziell Estate - Craig Nook, Over Johnston, Meadow Head.

Changes in the Extent of Farmland.

Although it has been stated that in the eighteenth century about a third of the Middle Ward consisted of moss, it is evident that on the better lands of Middle and Lower Clydesdale in the possession of the Ducal Family, mosses were negligible, and had been restricted in size for long enough to give rise to radial development of farmland. There still were considerable common

1. See Chapter IV, p. 4
muirs, however, attached to the larger estates, and the Dalziell Estate plan (1774) affords an interesting example of intakes of land and the development of small single tenancies from the Common Muir. These are mentioned in the classification above (Farms of less than 50 acres (c)). The later plan of the Estate, dated 1824 showed newly-consolidated intakes called High and Low Muirhouses (spelt also High and Low Murrays) and a new farm of Over Johnston beside the older farm of Lower and Upper Johnston. This development demonstrates the inadvisability of assuming that a cluster of farms bearing the same name necessarily originated as a single unit, or that the farms were related in any manner to each other.

Much of the moss and moorland of the level surfaces standing at seven hundred feet and at higher altitudes in the Upper Ward, proved intractable to those who attempted reclamation. Wight gave an example of the tenant of the farm of Harperfield at the junction of Douglas Water with the Clyde, reclaiming laboriously twenty-eight acres of moorland, at a cost of a hundred and sixty-one pounds sterling, and finding at the end that his improved land was worth only eight shillings an acre.  The present laird of Birkhill close to Broken Cross Moor, declares with feeling that the reclamation of his marginal land is not a paying concern. Forty-five acres of his land which pays a rent merely of forty-five pounds, requires practically the full-time services of a drystane-dyker, skilled in land drainage and reclamation, who is

paid at the rate of six pounds per week. This expert spends much of his time supervising drains laid deep in fields which may have as much as eight feet of superficial peat. Reclamation of the verges of the Broken Cross Moor, or at least appropriation of them, did go on in the eighteenth century, because, according to a document in the possession of Dr. Smith of Birkhill, when the Duke of Hamilton had the Moor perambulated in 1734, it amounted to seventeen hundred acres, but when it came to be divided in 1808, it had dwindled to six hundred and twenty-eight acres. According to the author of the Lesmahagow parish account the slopes of the hills surrounding this moorland surface, showed marks of extensive tillage at some former time. The marks of rigs were to be seen on land which at that time was overgrown with bent, heath, and mosses. If the photostat of Covington Barony (Folder 30) be compared with the modern map (Sheet 26/94) it will be seen that the eighteenth century limit of cultivation reached almost to the summit of Harelaw cairn (1050 feet), whereas rough pasture now begins at eight hundred feet, above Wellbrae. Along the foot of the slope of Harelaw cairn (about 750 feet) a continuous line marking the upper limit of a number of fields may denote an old head dyke, and along it are strung the settlements of Meadowflat, Cummerlandhead, Wellbrae and Hole. The foundation of these settlements may have marked a stage in the extension of cultivated farmland.

1. Page 80 of an Account of the Estate.
On the high moorlands in the West of Middle Clydesdale, between Strathaven and Barnock Muir, Wight observed many little houses and feus showing the marks of feeble improvement, with some trees growing and small enclosures next to the houses. These, he said, belonged to feuers established there before the spirit of improvement commenced, who regarded themselves as "a sort of gentleman, and have continued, father and son, in an indolent state ... are above labouring with their own hands, and who train their children to work for them, and for no others," with the consequence that they could barely feed and clothe themselves. A note dated March 21, in the Hamilton Estate Journal for 1766 contains a reference to tenants paying rent for two-yearly feus of houses and yards, or houses and butts of land in Muirhouses. Barneck Moor which in 1826, according to the plan (Clydesdale - Northern Sheet), held a central steading and a peripheral cottage, had at one time been divided into fourteen crofts. It would thus appear that before the enclosure era, small tenants were being settled in feus on the edge of the high moorland above Hamilton, a district which proved amenable to reclamation, and which to-day lies mainly in permanent pasture. It is difficult to tell whether any significance may be attached to this development, whether it was indicative of increasing population before the industrial era, or of the acquisition of

2. Presumably the farms of High and Leigh Muirhouses.
3. Statement made by the farmer, who was interested in the history of his farm.
increasing amounts of land by the more substantial tenants, because few documents prior to 1750 have been seen, and little can be gleaned from the plans, of the course of evolution of the runrig system.

**Apportionment of Land in Eighteenth Century Clydesdale.**

A plan dated about 1770 shows land lying runrig in Hamilton haugh, but this was possessed by artificers of the town, and it is unlikely that there was any periodic reallocation of rigs. (See Folder - 40). Although it is known that some of the farm-land on the Hamilton Estates lay interjected, it almost certainly lay in fixed possession because there was no approximation to the old co-operative or equalitarian spirit of runrig. Rentals for 1773 (See Folder, 39) and earlier, reveal that rents were paid purely in sterling money, although the lists showing "Present Yearly Rent" bear marks of conversion from Scots currency, and the rents paid by the various tenants sharing the lands of a farm, varied widely. Examples may be taken from statements concerning Drumsargate Barony (Cambuslang) to illustrate the state of affairs existing at least within that barony, in the sixties. The following entry occurs in the Journal for 1765, (4th October). "Having settled with Mr. Douglas the Method of laying out the Different Tenements of Lettrick and Fleemington; ...... Have also this day begun upon the plan the Division of Halside And finding 4 Convenient Farmsteads without the Town and 4 good Steddings

1. There are one or two references to payments in meal with sterling equivalents.
2. That is William Douglas, the Surveyor.
within the Town, Therefore determines to divide this large good farm into 8 Tenements. There being about 520 acres in the whole. And that Mr. Douglas shall point out the Farms of Robt Scott Expiring with Crop 1767, of John Donald whose Tack expires with Crop 1776, and of John Turnbull and James Lindsay, whose Tacks both expire with Crop 1780 - letting know the true quantities Each of their farms consist of marking the same upon the plan." Thus four only of the eight tenants lived within the fermtoun and each was in possession of a lease for his possession, the duration of which, if all were similar to those of John Turnbull and James Lindsay, must have been for a period exceeding fifteen years. The unequal portions possessed by five of the tenants are mentioned in an entry dated February 3, 1766:

<table>
<thead>
<tr>
<th>No. of Acres</th>
<th>at</th>
<th>Present Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>7/-</td>
<td>£4. 18. 5½/</td>
</tr>
<tr>
<td>17</td>
<td>8/6</td>
<td>7. 5. 4½/</td>
</tr>
<tr>
<td>58, 76</td>
<td>6/6</td>
<td>19. 3. 5¾/</td>
</tr>
<tr>
<td>91, 3</td>
<td>4/-</td>
<td>18. 8. 1</td>
</tr>
<tr>
<td>61, 8</td>
<td>6/-</td>
<td>18. 15. 1½/</td>
</tr>
</tbody>
</table>

(4/₅, 8/₅ etc. refers to twelfths. A Scots pound was 1/₁₂ of an English pound).

It may be seen that not only did the tenants possess unequal portions, but they also paid rents at differing rates per acre. It is interesting to note an observation made by the factor about the attitude of the tenants' predecessors: (Feb. 1 1766). "According
to Appointment, met with the Tenants of Halside upon the Ground
Where we Traversed pitted and deliberately considered every
Soil in Each Man's possession; And finds their predecessors
have been at great pains in giving every man his Share of Each
field what they thought good or bad or Indifferent; their even
dividing Riggs, being a Demonstration of this." Apparently
the fixation of unequal portions of the farmland had led to a
weakening of the old spirit of neighbourly co-operation, which
might have facilitated the adoption of a more enlightened dis-
position of the farmland in 1765. The lack of uniformity in the
date of expiration of leases, caused difficulties when a new
disposition of farmland was desired, and the following is
recorded, with exasperation, in an entry dated January 20th
1766: "According to Appointment Mr. Boyes and I went down to
Halside where we met with the Whole Tenants of that Town in order
to try Lindsay and Turnbull (whose Tacks does not expire till
1780) if they wouldn't Chuse to have their lands Reduced from
Runrigg to One Body, And to the Surprize of us and any person
knowing the least of Husbandry, They Obstinatly refused at any
Rate to lay their grounds together, but that they Should lye
Runrigg and Rundale as they got them. This at once Blew in
the Air our whole Scheme of Improvement." Some of the tenants
in the adjacent farm of Flemington apparently were equally
obstructive, and prevented one of their number from coming
forward to arrange for a redisposition of his lands, by making
"Threats against him Ever Since he Agreed to the Excambion."
Perusal of the Hamilton Journals makes it quite evident that when the officers in charge of Improvements spoke of the farms of Draffen, Merryton, or of any other large unit, they thought of them as individual farms, and treated with the tenants as independent individuals. The enclosure and consolidation of these farms was rather a matter of convenience and suitability than of principle. It will be seen that the opinions and wishes of tenants with regard to enclosure were given consideration, so that the lands of a farm might be quite unequally divided. It is interesting to note that on one occasion when the tenants desired equal division of a farm, it was agreed that a neutral farmer should determine the division, after which, lots were to be cast for choice. (1765, 5th November).

Some of the old terms such as ploughgate, horsegang, and mailing, continued in official estate usage, but it is difficult to know how much significance was attached to them. The number of ploughgates into which the farm of Flemington was reputed "of old" to have been divided, was taken into consideration when the apportionment of the farm between two tenants was envisaged, but according to this old reckoning - the information having been furnished to the writer of the Journal by a man named Murdykes - one of the two tenants in the eighteen-seventies was in possession of six ploughgates, and the other of two.¹ A more equitable division was proposed. On the other hand, entirely new ploughgates

¹ 20th and 24th Jan. 1775. This is the only reference observed to the number of "old" ploughgates in a farm.
A Plan of the Lands Agreeable to the Disposition granted by James Kiddel to James Miller of South...

Surveyed by William Haynes 1777.

Fig. IV. 7A. Mervat, New Monkland. 1777. Consolidated rig mailings.
might be created. When the division of the farm of Motherwell came under consideration, it was proposed to divide the four hundred acres of the farm into three ploughgates, each of a hundred and thirty acres in size. (1768, May 19). Thus it may be that by the middle of the eighteenth century, the ploughgate was significant principally as a basis for estimation of annual charges, in the Middle and Lower Wards. It is thought that runrig terms applied to division of land in the lands of Lesmahagow and parts of the Upper Ward had more active meaning, at least till the end of the eighteenth century. At that time a ploughgate was still a recognisable unit in Lesmahagow, and four horses were for the most part yoked to a plough. Thus a reference to the "Duke's five Horsegang of Land" on the plan of Borland in Lesmahagow (c 1770) may indeed have indicated the lands of five co-tenants. The term 'mailing' usually referred to a small possession, such as those shown on the plan of South Myvet (New Monkland, 1777, See Fig. IV, 7a.), but "Malins" referred to in the Hamilton Journals were as large as eighty or ninety acres. (e.g. 1765, 4th Dec.).

It is clear therefore that the principle of giving "every man his Share of Each field" no longer governed the attitude of either factor or tenant, and the era of movable runrig had passed. It is doubtful whether, in this region of Middle Clydesdale which was exporting horses in the latter half of the eighteenth century,

1. Verification of this has been found in examination of plans and rentals of the Douglas Estates.
co-operative tilling of land continued to any extent, except among part-time tradesmen, and although some regard was had for the old traditional units and terms, whether runrig custom did in effect persist. Although the portions of large farms might still lie runrig or rundale they were held on individual lease and consisted of single possessions of varying size. Plans and rentals show that large farms such as Draffen, might lie in consolidated blocks, for which substantial rents might be paid before improvements began, and that numbers of smaller farms were independent units and single tenancies. One tenant sometimes was in possession of more than one farm, or of a number of portions of one of the larger farms, and although it will be seen that the attitude of the Estate Officers might be autocratic, especially towards people of lesser importance, transactions between officials and the more consequential tenants were generally conducted in a business-like and friendly manner.

Since no payments in kind were made, and there is no obvious relationship in the amounts of money rent paid by the co-tenants of farms, it is impossible to trace the development of the existing order from any earlier equalitarian division. William Douglas's plans (c 1770) do not show individual possessions named, and rigs were indicated merely diagrammatically. It is however possible to see on a number of plans, clear evidence of a process of farm splitting and subdivision which had been

1. Rental 1773. See Hamilton Barony, for examples.
proceeding in this region before the enclosure movement began, and which presupposed a certain degree of consolidation of farmland.

The farm of Drumclog in the parish of Avondale was divided, with some arithmetical inaccuracy, into Drumclog $\frac{2}{3}$ - 236 acres and Drumclog $\frac{1}{3}$ - 211 acres, the older settlement being the smaller farm. (See Folder, 25). The tracing made from the estate plan shows that the newer settlement retained possession of a house and yard in High Drumclog, and a claim to two-thirds of the common loan. The division must have been one of quality rather than quantity, because Drumclog in 1770 had 146 acres of arable land and meadow to 55 acres of similar land in High Drumclog. The 1773 Rental (Avendale Barony) listed the smaller farm as Drumclog (209 acres, one tenant, £16 rent) and on the second sheet mentioned "part of Drumclog" (235 acres, no tenant mentioned, £22 rent), thus taking cognizance of the fact that the smaller farm was the original settlement. The offshoot steading has disappeared. In this instance the boundary line between the two farms ran through the original fermtoun, so that the establishment of Drumclog newer steading may have occurred after the division. The straight lines of division separating West from East Highlees and North from South Southfield appear to have been drawn through the yards of the secondary settlement, as though it had been established before division took place, but this must be purely conjecture. A strip of common loan or muir in which the fermtoun was situated might facilitate division and the retention
Ag. IV. Eastsidewood, Carnwath Parish. 1755.

A Plan of the Lands of Eastsidewood in the Shire of L. AVERK, parish of Carnwath

The property of James, Baron of East Coop. from Black, presoner of Eastsidewood, a surety, in behalf of Co. Bills

Requiring the Ex. Coop. to an appointment of the Surveyor. Session also Drawn & the Contents of the several kinds of ground

Calculated by J. Averk.

References

- John Averk, son of James, Baron of East Coop.
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1. Scale of Census 24, Sots 100 only

1. Scale of Census 24, Sots 100 only
of the two steadings in the old fermtoun. This may be seen on the diagram showing the town of East and West Turnlaw (Cambuslang 1765), and on the photostat of Eastsidewood in Carnwath parish (1755) (See Fig. IV, 8). It is evident that 'Pool's' and 'John Black's' "sides of the Town" of Eastsidewood had been clearly demarcated for some time prior to the Court of Session settlement in 1755.

After the fermtoun of Rodgerton had been split and the steadings of East and West Rodgerton were established at a short distance from each other, "John Hamilton's Lands of Rodgerton" and his steading were interposed between the two possessions and steadings. (See Folder 25 and 29). It may be that this tenant or his forbears had belonged to Rodgerton, but his lands were not considered part of Rodgerton by the Hamilton Estate officials, who deplored the need for effecting an ex-cambion with him, besides eliminating a number of the roads, that cut up the farmland, before the farms could be properly enclosed and laid out. (1768, 27th May). Certainly 'John Hamilton's' possession fitted into the radial pattern of the other two farms, and Kerse's Auchtigemel (Folder 25 Foot of sheet) if a settlement subsequent to Neither and Over Auchtigemel, fitted similarly into the strip pattern of the Nethan Valley farms. It may be noted that the lands of South and North Over Auchtigemel still lay interposed to a slight degree in 1770, and the line of division may be seen running through a yard of the fermtoun, as though recently drawn. By 1814 the two farms had been united, and
to-day there is no trace of Kerse's Aughtigemel.

It may thus be seen that where clear instances of subdivision of farmland had occurred, prior to the enclosure era, that there was a tendency to split the land roughly into halves, sometimes by straight line division, or to divide it proportionally according to quality of the soil. Subdivisions and interposed possessions usually conformed to the local farm pattern.

The lands under consideration in Clydesdale are too widespread and too diverse in nature to permit general discussion of the size of ploughgates in the time of co-operative runrig, but in connection with the examples of subdivision of farms which have been mentioned, it is of interest to note Naismith's comment that ploughgates formerly contained from seventy to a hundred and twenty acres of arable land, and for the most part one ploughgate made one farm, which was sometimes divided between two farmers. Sometimes small tenements equal to not more than a fourth or a horsegang were annexed to the ploughgate. A subtenant occupied a house on each of these. 1

1. Naismith, 1798, p. 57.

Blantyre Old Statistical Account (Vol. 2, p. 217) affirmed that the size of the ploughgate in that parish was about 80 acres, and that was similar to the calculated size of the ploughgate of Flemington (Cambuslang parish), which was between 73 and 84 acres. (20th and 24th Jan. 1775). It may be noted that some lands in Douglas parish were still referred to as ten pound or twenty pound lands (See Folder, 31) in the latter half of the eighteenth century, and reference was made in the Process of Division of the Run-Rigg Lands and Commonyt of the Ten Pound Land of Kirkton of Douglas (1779) to the common having been "time out of mind", divided into soums. When documents pertaining to the development of the lands of Ross and of Myvet (New Monkland) were examined, it was discovered that measurement had commonly been in terms of merklands, pound, shilling and penny lands. (Sasine of 1817 regarding the "Half merkland of Loanhead of Mayvet" and copy of a disposition dated 1731 relating to the lands of Raploch in Dalserf, seen at The Ross Mansion.
When the ducal officials came to enclose and lay out farms, their attitude was generally most accommodating, and we have seen for instance, that the eight 'tenements' of Hallside were allowed to remain as eight farms, and the Plan of Drumsargate Barony (Folder 23) shows seven of the farms neatly subdivided into rectangular blocks. The same attitude might be seen in the allocation of small farms. Thus with reference to the farm of Blacklie (near Shotts, 75 acres) the comment was made "There being two Cottagers in Blacklie I have divided it into About 39 acres to the south and about 36 acres to the north." On the other hand, when one of the larger farms fell completely out of lease, the entire farm might be let to a substantial farmer who desired possession of it. Thus when the farm of Draffen (675 acres) was advertised in 1783, as being to let, it was stated that it might be let in one farm or two or four farms. (1783, p. 56).

To expedite improvement of moorland farms, they were sometimes apportioned amongst a number of tenants. The writer of the 1765-66 Journal declared his intention of letting no more land to any man than he could stock, labour and improve, and in that year the farm of Moffathills (Shotts, 502 acres) which had previously been let to one tenant, was divided into seven holdings, varying in size from twenty-four to sixty-five acres. These possessions may be seen on the sheet showing the Barony of Bothwellmuir. (Folder 24).

1. The eighth part - Hallside Farm - was not inserted in the plan.
2. 18th October, 1765. Note the unusually large possessions for 'cottager'
3. 10th April, 1766 and 9th October, 1765.
In the south-east corner of that sheet, 'colonisation' of the moorland outfields of Wester and Easter Muirhead may be seen, the units in this instance being larger.  

It was common in the seventeen-seventies for sections of the 'field' land of large farms to be let on lease, and these became regular-shaped compact farms in the new manner of disposition. A number of possessions of fifty acres or less, either disappeared or were enlarged, and some of the farms of five hundred acres or more decreased considerably in size. The farm of Simpsonland for instance, in Hamilton Barony has increased from 37 acres to 160 acres, and Merryton Farm has decreased from 578 acres to 360 acres. Apparently the old principle of rig apportionment died hard, because examples have been found on plans dated between 1838 and 1850 of the division of large fields into regular strips, which were referred to as rigs, and measured in Scots acres. In 1838 sixty-four acres of Riccarton Park (part of the High Parks of Hamilton) were let in tillage to eight tenants. The divisions were unenclosed rectangular strips, the largest single acreage being seven acres. In 1843 regular-shaped 'rigs' in Burnblea Mid Park, were sold by roup — possibly to colliers — the two acres being divided into nine strips. In 1850, fifteen lots of rigs, the largest being 3.2 acres Scots, were sold by roup, at up to £7. 15/- per acre.

1. Note the new steading of Pauldhead standing in outfield land.
Enclosure.

The progress of the enclosure movement in parts of Clydesdale may be seen on the Index Map (See Folder-38). Hamilton Policies were enclosed and regularly laid out in 1708, and by 1770, ninety per cent of the farm of Bent and Neither Holanbush, on the slopes above Hamilton, was enclosed and regularly laid out, while about thirty per cent of the Barony of Hamilton was covered by an enclosure grid. Large enclosures were rare on other parts of the estate at that time. In the seventeensixties, the small estates of Haloraig and The Ross were enclosed in an efficient manner. (See Fig. IV, 2), and by 1774 sixty per cent of Dalziell Estate was laid out in fairly large regular enclosures, a number being in the vicinity of twenty acres. Plans drawn at the end of the eighteenth century of the Hamilton Estate, show that with the marked exception of the parish of Shotts, most of the farms were completely enclosed by that time. The general enclosure of the Douglas Estate lands was merely in the early stages at the beginning of the nineteenth century, and although the farm of Glespen Mains (Crawfordjohn - See Introduction, Fig. I, ) was almost completely enclosed in 1801 there is a striking contrast between methods of enclosure employed on that estate and the Douglas Estate, and those employed on the lower lands of Clydesdale.

The photostat of Hamilton Barony (Folder 27), shows a rectangular grid of ditch and hedge enclosures laid out beside,
and at right angles to, the turnpike road, some of the angles at the corners of enclosures, being rounded with trees, in the fashion approved by Maxwell. Neither yard of settlement nor irregularity of stream was permitted to interfere with the symmetry of the design. The rectangular enclosures of Halcraig (Fig. IV 2.), some separated by strips of planting, contrast markedly with the irregular and somewhat unusual enclosure pattern of Glespen Mains. Near the steading of Glespen were small enclosures within larger ones, and the remaining enclosures were of varying sizes, irregularly laid out, individual enclosures containing an assortment of arable land and meadow, pasture, marsh or woodland.

Some of the plans of the Douglas Estate show enclosure proceeding in a rather haphazard manner, and some show the persistence of runrig custom. The plan of Dunsyston shows partial enclosures awaiting the improvement of moss before completion. The plan of the lands of Belston, drawn about 1770 shows that estate quite unenclosed. The two subsequent plans show the beginnings of regular enclosure on Belston Farm, but a most untidy division proceeding on Belston Mains (previously Bellston Place). This may have been caused by the planting of trees before enclosure commenced. The plan of Raw Farm (1809 - See Folder 36 - photostat) shows enclosure proceeding on the fields near the settlement, the impression being given that the older and more

1. Shotts, 1799. (See Folder 32 - Photostat).
2. Carluke c 700 ft. altitude. 1770, 1813 and 1814. (See Folder - 33, 34, 35 - Photostats).
valuable croft lands close to the fermtoun were instinctively divided into smaller fields than the former outfield land. The 1769 plan of the Estate of Douglas (Folder 31) shows the farm of Uddington, lying in an unenclosed condition, while the plan of the farm drawn in 1804 shows a number of long narrow enclosures, formed perhaps by the lateral consolidation of straightened rigs. The tenants of the farm were allotted enclosures distributed throughout the farm in the old runrig fashion.

It may thus be seen that the early enclosure grids reflected the attitude and degree of enlightenment of the landowner or surveyor, responsible for operations, and doubtless many of the enclosures were short-lived. Even where enclosure proceeded in a workman-like manner, changing conditions might cause alteration in the size of enclosure — as they still do. Thus on the Dalziell Estate, where encouragement was given to smallholders, many of the large enclosures shown on the plan of 1774 had been subdivided into tiny fields of from one to five acres by 1824 when the second plan was drawn. Further detail about the enclosure of the Hamilton Estate will be found in the next section.

The Improvement of the Hamilton Estates in Clydesdale.

During the eighteenth century, the Hamilton Estates in Scotland were vast and widespread, and their management was entrusted to competent officers, who were themselves, people of

1. This is not a particularly good example of a process of division which might be seen in many district, including parts of the Lothians.
considerable consequence. The Dukes of Hamilton were members of the Edinburgh Society of Improvers, but during the period after 1766, when large-scale improvement of the estates commenced, most of the estate affairs were administered by "Tutors" appointed during the minorities of two dukes. The Seventh Duke of Hamilton died in 1769, aged fifteen, and Douglas, the eighth Duke, succeeded him at the age of thirteen. Chamberlains, factors, advisers, surveyors, and landgrieves contributed towards efficient organization, and there appears to have been considerable liaison between officers in different parts of Scotland. Frequent mention was made in the Journals, of a Baron Mure, who apparently had his headquarters in Edinburgh, and held superior office to the Hamilton factor, Mr. Boyes. Thus contact was maintained with eastern counties, and according to the Journals, "east-country men" might be employed on the perambulation of farms prior to division, farm equipment might be procured from Edinburgh or Leith, and grass-seeds sent from Edinburgh or Bo'ness. It was moreover common for cattle from the Arran Estate to be sent to the Clyde haughs for fattening, or for sheep from the higher lands of Ayrshire or Clydesdale to be wintered on farms near Hamilton.

The estate officials took an active part in the direction and management of enclosure and land improvement, and the work of tenants and day labourers was well supervised. William Aiton, a Hamilton gentleman who had a grievance against the estate officials,
declared that the Factor and Landgrieve at Hamilton "lived merry lives at an expense far above their known salaries, and yet acquired wealth", but admitted that the Duke's tenants "generally had good bargains, and if they acted cautiously, were not by any means hardly dealt with." Reference to a year's Tavern Bill of £39. 19. 2½ sterling "for Communing and Bargaining with the Tenants and others," implies amicable transaction of business.

The Progress of Enclosure and Improvements.

According to the accounts of local historians, the policies surrounding the mansion house of the ducal family were negligible until the seventeenth century. During that century the "pleasure grounds" were enlarged and laid out, necessarily at the expense of the Nethertoun and Hietoun of Hamilton, both of which originally lay between the mansion and the River Clyde (See Fig. IV, - ). The plan of 1708 shows a considerable acreage devoted to ornamental woodland, belvederes, orchards and deer park, and the later plan of c. 1770 shows that by that time, one or two only of the Nethertoun feus remained, and the Hietoun was retreating from the precincts of the Palace. (See Folder - 18). There are references in the Journals to workmen removing paving stones from the street of the Hietoun, but although much clearance had been achieved by the middle of the eighteenth century, the


2. 1766, Feb. 3.
Fig. IV.11. The section of the Policy Wall which faces the old town, consists mainly of the bricked-up facades of houses.
south haugh between the Palace and the Clyde, was still possessed runrig by numerous citizens, merchants and artificers of Hamilton. (See Folder 40 - Photostat). A strip might be rented for a year at a rent of from £4 to £8, chiefly for the purpose of growing potatoes, or providing fodder for livestock. Wight declared that Hamilton Haughs paid high rents, but were in very bad order, being over-run with weeds. "Mechanics and manufacturers of Hamilton possess the land because they can't live without a cow or a horse, and pay but part of the rent out of the land." Women lace workers helped to pay the rent of these acres. The construction of a new road and bridge across the Clyde in the seventies facilitated the enclosure of the land north of the road within the policies, although it may be noted that "His Grace" approved a serpentine rather than straight route for the road, partly because it "cut and disfigured no property of any person within the Haugh". From that time onwards there was a steady elimination of the haugh rigs, and one of the last stages may be seen on the tracing made from a map dated 1814. (See Fig. IV, 10 and 11). Hamilton however was conscious of its traditional rights and occasionally resisted strenuously ducal attempts at encroachment. In 1833 it was one of the few Scottish burghs whose Townslands were still intact, and Johnston in his "History of the Working Classes" noted that at that time, Hamilton still had its common muir, public bleaching green, sixty acres of land, and

3. 1778, June 2.
markets.\textsuperscript{1}

The plans of the Hamilton Estate drawn by William Douglas between 1765 and 1770, show that some of the farms near Hamilton were completely or almost completely enclosed by that time while most of the farms at some distance from the town lay completely unenclosed. There is a statement in the Journal for 1765 (Nov. 17th) to the effect that £961 sterling of advanced rent had by that time been achieved on the Estate at Hamilton, although the writer of the 1774 Journal recorded that the improvements of the Estate began in 1766. It is evident that the estate policy with regard to enclosure and improvements, was sufficiently well defined and the necessary organization sufficiently advanced, for the commencement of large-scale operations in 1766. In 1765, (Nov. 17th), Robert Rutherford was appointed overseer of outworks and of the Nursery, with responsibility for carrying into execution all the improvements about Hamilton.\textsuperscript{2} Robert Clark a "bred gardner" was appointed to be his foreman. About 1765, Mr. John Burrell was employed to advise on the best means of improving individual farms, and Mr. William Douglas was appointed Estate Surveyor and Draughtsman. Attention was given to Mr. Burrell's advice, but it was not always followed. He did, for instance, strongly urge that farms out of lease "may be lett for ane Augmentation of yearly rent And not by Grassum or fine. And that they may be

2. His salary was £12 st. 6½ bolls meal and a free house.
lett by private Bargain and not by roup. The Grassum and roup being obnoxious and injurious to both proprietor and Tenant, they being two Strong barrs Against all manner of improvements." Large farms especially, continued to be widely advertised when out of lease.

It has been stated in the previous section that long leases were customary on the Hamilton Estate by 1765, and different dates of expiry of tacks on shared farms, sometimes hindered enclosure and improvement. Apparently at that time many of the tenants were prejudiced against enclosing. An entry in the Journal for 1774 records "when we began the improvements of the Estate in the Year 1766....the generality of the Tenants were so inveterate against inclosing that they many times offered to give more for their Farm open than inclosed. Whereas at this time there shall not be found half a Dozen of Tenants in the Dukedom that will take a Farm without inclosing."

Survey and Valuation of the Hamilton Estate for Improvements.

The survey undertaken by William Douglas was supplemented by a considerable amount of work done in the field by the writer of the Journals who may have been John Burrell or an assistant factor. References are made in the Journals to the various factors taken into consideration when the value of a farm was assessed, and to the difficulty of making thorough investigation of soils. The following excerpt is dated May 19th, 1768.
"At the Desire of the Tutors have this Day begun the Survey of His Grace's Unentailed Estate, in order to investigate the true Value of Each farm, As they are now set, And as they presently lye in an unimproved State, as well as what they may be rented at for the first Lease of Nine Years, after being inclosed Drained and subdevided. And having with the Greatest Care and assiduity perambulated, Traversed and Diged pits for finding out the Different Soils and their Depth, and having with Due attention noticed all the Different Declivitys, Their Distance from Market Towns, and Their Medium heights above the sea in order to Determine the Suns power of Reflection, which is the true Course and the first mover of Vegitation." A portable barometer was used to fix the altitude of farms, the writer declaring that his room in Hamilton Palace stood twelve yards above the sea. 1 The actual height of his room must have been over eighty feet. With the aid of this barometer the writer classified farms according to position within three "layers of the Atmosphere", taking account also of variations of slope. The highest part of West Greenlees Hill was for instance found to be "180 Yards above the sea which I say is at the top of the 2nd and Entering the 3rd storry of the Atmosphere". 2 Rents were certainly lowered with increasing altitude, but no ruling for this has been discovered.

A list of farms was given, with detailed information and

1. 1768, 9th May.
2. 1768, May 27th.
advice, the account of each farm concluding with the following type of table. Valuation was based on an estimate of the possible value of each type of soil:

Motherwell Farm.

<table>
<thead>
<tr>
<th>Expiry</th>
<th>Acres</th>
<th>Present Rent</th>
<th>Improved Rent</th>
<th>Advanced Rent</th>
<th>Computed Expense of Inclosure</th>
<th>No.</th>
<th>Real Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1775</td>
<td>400</td>
<td>£100</td>
<td>£444.12.6</td>
<td>£344.12.6</td>
<td>£270</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

On one occasion it was admitted that an excessive rent had been charged during an "improving lease." On 12th May, 1768, in connection with an unnamed farm it was stated that all the tenant still in possession could be brought to, was an offer of 15/6d per acre for the remaining years of the lease "in place of 20/- the Baron and I first set on that Farm. I must own that tho this offer is so much below our Lett, that it is nothing below its true value. The most of the staple soil being a Blowing Sand. The only thing that raised its price with the Baron and me at first was its situation and vicinity to the Town of Strathavon, which I find is not so much to be regarded."

Plans of Division.

After the plan of division had been drawn for each farm, Mr. Douglas, his assistant, and the writer of the Journals who

1. The Baron was probably Baron Mure.
may have been Mr. Burrell, actually staked out and numbered the enclosures on the ground, sometimes marking out the foundations of stone dikes by digging pits, or in Glanis terminology, by loxpitting. These officials watched the early stages of the actual enclosure, whether by ditch and hedge or by dike, estimating the time and expense involved. When work was laborious and progress slow in the initial stages, the type of enclosure might be changed.

There was no hard and fast ruling about the size of enclosures, nor at first about the number of them. On May 22nd-23rd, 1768, it was decided that all arable farms should be subdivided into multiples of three, to facilitate the ploughing of one third per year in a nine year lease, which should allow a complete rotation. The division of Motherwell Farm, recently mentioned, conformed to that stipulation. "this Farm be Inclosed and subdivided into three ploughgates 133 Acres a piece, and Each of these into 9 inclosures near 15 Acres a piece, being 27 inclosures in whole, with a Restriction of Never having more than 9 Inclosures in Grain, and 18 in Grass."

Farms to be let mainly for pasture sometimes were divided into very large parks. Riccarton Farm, for example, was to be divided in 1765 into parks of from forty to sixty-six acres, Skellyton, a Clydeside strip farm of 340 acres, with slopes suitable for fattening cattle, was to be divided into enclosures of from twenty to forty acres, while Merryton (380 acres at the
time of division) with a greater proportion of land suited to arable farming, was to be divided into enclosures of from ten to twenty acres in size. The average size of enclosure stipulated for the smaller farms was twelve acres, and occasionally with regard to the enclosure of a farm the injunction was given that no enclosure should be above fifteen acres and none less than nine acres.

Choice of Type of Enclosure.

The expense of enclosing varied with the size of enclosure and the type of fence or dike constructed, and the consideration of expense was in some instances, instrumental in determining whether land was to be used primarily for pasture, or as arable land. In 1765 John Burrell made the following decision about the division of Turnlaw Farm, which lies on the lower slopes of the Dechmont Ridge: "Turnlaw one half thereof, Finds 1. By its Soil and Situation it is much fitter for a Sheep pasture than the plow Finds 2. By its Contiguity to Dechmont Something may be saved in the Inclosing, And that the whole 119 Acres may be Inclosed the same way with Dechmont for £80....If it Remains as it is And be lett for the Same Course of husbandry it should give 6/- per Acre And if inclosed by ditch and hedge, Remaining in the same course, it should give 8/6d per Acre, And if Inclosed by a Stone wall for a sheep park it should give 11/- per acre. As the inclosing this farm in the common way by ditch and hedge Subdivided into the medium of 12 Acre inclosures takes £8 more
than by going round the same with a stone wall, we must determine the Improvement in favour of the later."

Thus, although the stone dike be the more expensive structure, it became cheaper when employed for sheep pasture, than the greater extent of ditch and hedge needed for smaller arable enclosures. In an abstract of 1765, the cost of a fall of ditch and hedge was stated to be 1/6d, compared with 5/- for a fall of stone dyke.

Detailed descriptions were given of various types of ditch and hedge enclosure constructed, and dikes varied from solid turf dikes six feet high, to stone dikes five feet high, coped with turf. A ducal opinion is recorded in the Journal for 1768 (Sep. 7), that it would be better to employ a special weeder and dresser for the hedges than to rely on the efforts of the tenants. This advice appears to have been followed, because subsequent entries record the employment of day labourers to tend the hedges, and the liability of tenants to half the cost of their upkeep. Thorns for the hedges were obtained from nurseries at Hamilton, from Holmfoot on the Clyde Trench, or from other estates outwith Clydesdale, but occasional complaint was made about penury of thorns. Apparently the estate officials realized that hedges did not thrive well on the farms of Shotts parish, but were unwilling to admit the fact. On May 9th 1768, the comment was made that the fences of Shotts farms were standing well "which confirms me in my last construction of Fences for such grounds. But must in justice reflect at the Hedges not being planted, and will accept of no Excuse but want of Thorns."
Improvements personally supervised by Estate officials.

The straightening and improvement of rigs was financed by the Duke, and superintended by estate officials, but no account has been found of the actual process. Wight stated that the factor on the Douglas Estate at Douglas had experienced "the loss of leveling and straightening high crooked ridges, which is difficult at any rate and not to be attempted but very slowly in a moist climate." On May 11th, 1768, a tenant on the Hamilton Estate was censured for having "taken on him to alter the Course of the Ridges that cost the Duke so much Expence in straighting."

The construction of farmsteads and cottages was also the concern of the Duke and his officials, although the tenant might contribute a certain proportion of the total cost. In one instance for which full particulars were given, namely the construction of a house at Shotts, the tenant was responsible for the payment of the workmens' wages. He contributed £39.11 of the total cost of £138. 5, for a house forty-five feet by twenty feet in plan and sixteen feet high. With reference to the Barony of Kinneil, near Bo'ness, the following significant entry is found in the Journal for 1775, p. 63. "I had Yesterday thought of Reparing Richd Thomsons Houses in the Old way with Thatch and Divot and Home Wood, But as in a little time A Single Divot will not be got on the Whole Barony of Kinneil Am now

2. June, 11, 1777.
Resolved to give it Foreign Timber and a Tyle Cover." It is unlikely that such improvements would be confined to the Barony of Kinneil, and it is interesting to note the use of seasoned timber under an effective roof. There are references to the construction of houses for colliers on Hamilton Estate, and these had walls composed of alternate layers of stone and turf, mid-walls of stone and lime, and tile roofs. Six cottages of this type were constructed for £40. 17. sterling, total cost.

Estate officials were responsible for the woodland and plantations of the estate, and the following excerpt gives an impression of the vigilance exercised over them: "In making this long course of a Ride, observes, that it will be necessary for J. Henderson to get a Galloway warden to ride through the High Parks and all the Belts and Clumps of Planting together with making observations on the Tenants Houses and fences within the Barony of Hamilton at least once a week, and without the Barony of Hamilton as often as possible." Although, from 1765 onwards the Journals contain frequent references to the purchase of trees for the Hamilton Estates in Clydesdale, little information is given about the extent and nature of the afforestation. In 1766 the writer of the Journal declared that he spent part of a day "going thro the Nurseries about Edn" (Edinburgh) in Search of young Firs and Elms, And finds the Trustees for the Annex'd Estates before hand with me." Besides soft wood trees, considerable

2. Journal, 1783, September.
numbers of mixed hardwood trees were planted, elms, oaks, birches, and rowans being frequently mentioned. Alder wood was frequently used for making railings to protect hedges.\textsuperscript{1}

Overseers were responsible for the sowing of grass-seeds on land in possession of tenants. On one occasion two tenants were discovered ploughing up land which had been for four years in grass, and were required to pay for the grass-seed sown by the overseers.\textsuperscript{2}

In January 1775, the tenants of the parish of Hamilton were "got together" and informed "that as the Duke had already lost a great deal by Sowing of Grass seeds upon their unprepared and Bad dres'd land, they behoved now to follow the Directions of Geo. McKenzie and Robt Rutherford with Regard to their plowing Harrowing Rolling and Sowing And bridleharrowing after Rolling and Sowing, All which they faithfully promised to do."\textsuperscript{3} White and red clover and ryegrass seed were to be sown, and immediately after the hay was cut in 1776, the lands were to be dressed with lime.\textsuperscript{4}

The estate officials realized that some of the poorer and higher lands of the Baronies of Bothwellmuir (Shotts) and Drumsargate (Cambuslang) were better suited to permanent pasture than to the arable farming, that for long had been practised on them.

1. Further information about woodland rights and stipulations is given in lease conditions quoted on p. 65 et seq.
2. 1775, p. 30.
4. Timothy grass was mentioned in 1768, in connection with an opinion given by the writer of the Journal on an estate in the Merse, belonging to a London gentleman. 1768, May 3rd.
Reference was made, for instance, to 133 acres of the Hill of Dechmont which had unsuitably been under "the torture of the plow". Ground let for pasture was well supervised, apparently with some justification. On May 9th, 1768, the narrator on his way between Hamilton and Shotts "Found the Inconvenience of Setting pasture Grounds longer than Christmas, By finding these Grounds lade down in such a manner that a Grass field was not to be seen on any part of it; And it Could be No otherwise as the Tacksman had still his whole Stock, besides part of the Stock of all his Neighbours going upon it."

**Hamilton Estate Policy with regard to Tenants.**

The attitude adopted towards tenants appears to have been a compromise between consideration for their opinions and desires, and regard for efficiency and maximum financial return. The officials were prepared to consult tenants about their views on enclosure, provided the tenants could pay the requisite rent. Thus, although normally the tenant had to conform to a given plan of farm divisions, consideration was frequently shown for the wishes of an incoming tenant, as regards the size of his farm, and size and number of enclosures. On 17th Oct. 1765 the officials decided to take the opinion of a tenant with regard to the number of enclosures on his farm, and with reference to the enclosure of a few farms. An injunction was given in an entry of 7th Dec. 1765 "That none of the Subdivision be made till we have

the advice of the Tenant that is to occupy them." If, however, the offers for a farm did not satisfy the officials, it was commonly divided into lots and let by roup for pasture.

When a number of tenants fell behind in their payments of rent, a plea was entered in the Journal (1775, p. 39) that the Estate Commissioners should not "crush the Spirit that cost so much pains and trouble to promot; but on the Contrary to Indulge and encourage all those that have follow'd the System of Husbandry pointed out to them, As this may have the effect in a few years to change His Grace's lands in Clydesdale, from the very worst to the very best." On the other hand, the attitude adopted towards negligent or unsuccessful tenants who eventually were served with "hornings" or warnings of eviction, and to employees, might be autocratic and inexorable. A strict watch was kept to prevent tenants served with hornings from smuggling any part of their grain, and dykers ditchers and road-makers were kept under constant supervision, the writer of the Journals rising early sometimes, to verify that wage claims made by such people were indeed justified. Even overseers who had been careless, might be ordered to appear at the Estate Office in Hamilton once a week to report on their activities. 1

**Conditions of Tenure.**

Lease conditions framed at various periods between 1765 and 1783 show that the estate policy on this subject was fairly fluid,

varied from district to district, and changed with the progress of improvements. Some examples of lease stipulations may be quoted, in summarised form:

**Conditions proposed by John Burrell in 1765.**

(a) The duke to be obliged to inclose within an agreed time, or the tenant to do so within the same time, according to a plan. If the latter, allowance to be made out of the rent, as valued by a skilled man appointed by the duke.

(b) The tenants to weed and dress the hedges at least twice a year for the first 4 years, and scour the ditches once a year within that time. Thereafter to keep in good condition or pay the expense of the upkeep.

(c) Suggested compromise with the tenants of Allanton, Merryton, Skellyton, Lettrick, Flemington and Hallside whose tacks have not yet expired. Two umpires, one from each side to determine a yearly sum to be paid to the tenant if he gives up his tack: Any who wish may have a lump sum at renunciation in lieu of annuity: Any who wish to retain possession may have their land valued by two neutral skilled men one chosen by either side, and a new division made, any difference being paid by the relevant party.

(d) That the tenants of Hamilton, Cambuslang and Dalserf Baronies shall

1. plough only one third of their possessions.
2. never take up ground without lime or some other manure.
3. never take more than 3 crops running, one of which a black one.
4. that all grounds be richly laid down with clover and rye grass seeds with the third crop after taking up, by which course of husbandry the tenant must for ever have 3 good crops of grain and six good crops of grass alternately - If tenants default they shall be liable for double rent for the ground otherwise cropped.
5. As the present grounds to be let "are in none of the best condition" in order to bring the lands up to the proposed rent as soon as possible, that Mr. Boyes the factor shall be authorised to treat with the offerers, either to give "ane ease" for the first two or three years of the Tack or to give a complement of a certain quantity of lime at the Craig free of any expense to the Tenant but the carriage.
Conditions of Lease for the Lands of Arran, 10th April, 1766.

(a) The let to be for 19 years or 13 years "if we can"

(b) "That we shall narrowly enquire into the circumstances of every offerer, And to give a lett of no more to any man than he can stock, labour and improve; making a total irritancy of the lease if they sublett one single square yeard of ground of any kind to any man".

(f) That as much as possible shall be taken into each farm above the High dyke; And that a total division shall be made of the common pasturage; And Every Farm to get a Share lying most contiguous; with quantity & quality, in proportion to their respective rents"

Note made on 22nd or 23rd May, 1768.

Articles approved by Baron Mure.

(a) That amongst our general clauses for the new tacks the Tenant shall be liable to the sum of £5 Stg for each acre he plows above one third yearly, and that Besides the Current Rent.

(b) That all arable Farms shall be subdivided either into 3, 6 or 9.

(c) That all lets for the future shall either be for 9 (or 10 years - poor writing) But rather for 9 as by the restriction of ploughing only one third it makes a complete rotation.

Conditions for Nineteen years leases to be granted on His Grace the Duke of Hamilton's Estate 13th Sep, 1733.

(a) Commencement and termination to be at Martinmas.

(b) The tenant enters only to the arable land at Martinmas, and to the Houses, Grass and pasturage at Whitsunday thereafter.

(c) Payment of rent to be at Whitsunday and Martinmas.

(d) If failure to pay rent, then to pay 1/5 part of each terms Rent of liquidate penalty along with the usual rent.

(e) Houses to be inventoried and valued at commencement and handed over in as good condition, or repairs to be charged to tenant.

(f) Similar conditions to (e) with regard to upkeep of fences.

(g) If tenant wishes to make more fences, the Duke shall furnish Thorns provided the lines are marked out and the Thorns had to be manured at direction of Overseer, and said fences to be upheld as in (e).
(h) The tenant to labour and manure the said lands regularly "in a sufficient farmer-like manner" and not to have more than a third in tillage unless easy access to foreign Dung, the same to be purchased and laid on so as at end of the Lease, there shall be 1/3 of the said arable lands in 4 year old ley, another third in two year old ley, and the remaining third in grain, grass seeds to be sown with this last crop. The tenant to harrow or roll the same after the grass seeds are sown without any claim of allowance. When any third of arable land has run the course of tillage the tenant to lay down and sow with grass seeds, at his own expense, (or have it done, still at his expense) Not to take up or plough any ley ground without properly dunging or liming or otherwise manuring.

(i) The tenant to be obliged to pay £3 stg. for each acre he shall manage contrary to above stipulations "And he shall cause eat and consume the fodder upon the grounds yearly for gooding thereof, and have no liberty to carry off or dispose upon the same or any part of the Dung that may be upon the Lands the last year of the Lease, and which shall remain thereon as his Grace's property, without any allowance to be made the tenant therefore"

(j) The tenant to be obliged to carry his whole grindable victual (seed and ? - word illegible) corn excepted to the relevant mill for grinding, to pay requisite mulltures, and perform usual services to the said mill and dam, and shall observe the Acts & Statutes of His Grace’s Baron Courts and pay the officer of the Barony, conform to use and wont, and shall keep and maintain upon his own charges for His Grace - Hounds or Whelps as oft as desired during the lease.

(k) His Grace to have the right if necessary to straighten and exchange such parts of the grounds as necessary - on tenant receiving deductions from his rent for any damages he may sustain through the said straightening or exchange.

(l) Duke to have all rights of coal, lime and metals, and of working them, and to make roads, ways and passages there through, upon allowance to be given the tenant either by the Duke or his Tacksmen - so much per acre of the grounds to be occupied by these workings.

(m) The Duke to be at liberty to let 99 years leases of as many acres for building upon as is most fit for that purpose, the tenants having deduction at the rate of so much per acre.

(n) The Duke to have complete rights over woodland - copsewood, belts, clumps and other plantations - to dress, replant and cut, and this without any claim of damages on that account, the tenant being always liable for the damages done to the said woods or other plantations by cattle or other ways according to Law.
John Burrell's proposed conditions framed in 1765, allowed the tenant a certain amount of options, and show a reasonable and progressive attitude. They reflect the natural desire for renunciation of unexpired tacks on the larger shared farms so that improvements might commence uniformly, but show that the tenant might retain his possession, newly disposed, if he so desired. At this time it was common for even substantial arrears to be discharged completely, on renunciation of a tack. An enlightened system of husbandry was stipulated, at least for the baronies close to Hamilton, and allowances were to be made from the rent for a few years, or a certain amount of lime given, in recognition of the unimproved condition of the land.

It is of interest to note in the Arran regulations (1766) the desire to shorten leases during the early stages of enclosure and improvements. Clause (b) of these regulations is reminiscent of the advice offered by Maxwell of Arkland, Secretary of the Edinburgh Society of Improvers. Common pasturages were divided on the Hamilton lands in the same manner as that described in Clause (f) of the Arran conditions.

The lease for nineteen years had been established by 1783 when a new set of conditions was framed. Some of these were stringent, and it is apparent that the tenant was having to meet an increasing proportion of expenses. The wellbeing of the land and of the Duke's plantations were amply safeguarded, even in the case of woodland, at the risk of detriment to the tenant's
interests. Although tenants were apparently to be thirled to particular mills, it is known that before 1783, permission was granted for those who wished "to compound for their multure sequels and mill services." The leases of ninety-nine years, mentioned in (m) referred to the feu, usually of less than five acres that were granted to tradesmen.

Rent.

The estate officials were generally reasonably patient with regard to rent payments. For example, on June 6th, 1768, the tenants had been punctually warned, and the narrator "Attended them at my own House from Morning till Night and Collected to the Extent of £263. 17. 3. Some came with Triffels and others with Excuses, Both of which I gave the same Answer that I should have a little patience on condition I found them Willing and Deligent."

A general maxim which apparently was quoted to tenants, was "That whatever Rent can be Raised by pasture in Arable Land, no man need be afraid to farm it at the same Rent, with the liberty of the plow." This presumably applied to pasture land let under lease to tenants, and not to grounds let from year to year to graziers, and was doubtless an incentive to the intensification of cultivation of outfield land. By the year 1744, each of the Baronies was considerably in arrear with rent, to a total amount of £10,142 sterling. The principal reason given

for this was that the tenants "had followed my advice in resting their Croft land. And in labouring manuring and cultivating their Outfield lands, The crops 1771, 72 & 73 were unfavourable & the 74 was Tollerable tho' not above one half of what may be expected after the Croft land is taken up." A scheme was worked out in detail whereby the arrears might be paid in six instalments between 1774 and 1776, so that the tenants might have a reasonable time allowance. This proposal was presented to the "Commissioners" with the comment "This will be the fairest tryal ever was made on the Tenants, as it will push the Active and industrious & be a Galling Spur to the lazy and indolent; it will show the goodness and lenity of the Commissioners by leaving no excuse to the Tenant, who may happen to be turned out, for neglect, indolence and dissipation." The crux of the matter seems to have been that the tenants were falling heavily into arrears of rent, not so much as a result of the resting of their croft lands, as of the excessive "Improved Rents" which they had to meet. When the 'improved rent' of a farm was estimated after survey for enclosure, it was usually at least twice the amount of the existing rent, and commonly was much more than that. The example of Motherwell Farm has been quoted (see pageiv), and in that instance, the improved rent was to be £444 sterling, an advance of £344 on the existing rent. The farm was let at Martinmas 1775 to two tenants, one of which was to pay £230 per annum, and the other £70 per annum, the first tenant paying a fraction above twenty shillings per acre for his land. It is
not surprising to find the following entry in the Journal for 1778. "At this period (1775) these Lands were quite run out... Mr. Gillespie is of opinion that if the high rent is expected from the beginning, the Tenants must become Bankrupt and that the Land will not bring that rent from another. He therefore proposes that an abatement of rent should be allowed them of £120 St. for each of the first three years which he thinks may enable them to hand dress their fields and pay the high rent afterwards - Mr. Burrell said this could not be done without your permission."\(^1\) It is interesting to note Wight's comment made two years after the leases of Motherwell had been granted.\(^2\) He declared that the wheat, pease, barley and oats grown by one of the tenants were a surprise to all who had known the former wretchedness of the farm, that enclosing was proceeding briskly, and grass-seeds were being sown. Thus at least one of the tenants was industrious and it was to the advantage of the estate to grant an abatement. This example illustrates well the intricacies of the management of a large estate, the hierarchy of officials concerned in such matters, and the danger of concluding that those who stipulated excessive rents were devoid of a modicum of tolerance and discretion.

The Execution of Improvements.

Workmen were employed on many of the multitudinous labours of improvement, and were paid either by the day, or according to

1. Journal, 1778, 7th August.
work achieved. No accounts or receipts similar to those available for Glamis Estate have been discovered, but sundry references in the Journals give an impression of the diverse works undertaken by the day labourers, and of the wages paid to them. Specimen examples are quoted below:

**Works of Demolition or Construction.**

1778 23 May  Payment to man for taking down 11 roods 5 yards of old houses next to the Palace, at 5/- per rood, and for taking up the pavement carefully, at 4/6d per rood  -  £2. 15. 6.

1778 16 May  Levelling an old march dike at 1/6d per chain.

1778 16 May  Wages paid to a mason for constructing a shed and milkhouse at 21/- per rood.

1778 7th Sep. 90 chains of road-making and laying paid at the rate of 35/- per chain.

1778  p. 23  Payment at the rate of 6/- per chain for making a ditch.

1778  p. 26  Payment of a man and his assistant at the combined rate of 22 pence per day, for planting hedges.

1775  Jan. 30  Payment of £110 sterling to two ditchers.

1774  Dec. 27  Payment of £38 sterling for construction of faced dykes round clumps of planting.

**Work on Farms or Plantations.**

1778  May 21st  Payment of workmen at the rate of 9d or 10d per day for driving a plough.

1778  May 23  Payment of a labourer for herding sheep belonging to a tenant until the fences of his enclosures should be sufficient  £2. 11. 4d.

1778  June 3  Payment at the rate of 10/- per acre for cutting, gathering and burning broom.

1778  p. 56  Payment at the rate of 20/- per acre for hauling up whins.
Fig. IV.12. Site of the limeworks at Limekilnburn.
1778 May 16 Payment at the rate of 10d per day, to labourers filling carts and spreading earth.

" Payment at the rate of 10d per day for cleaning hedges and scouring ditches.

1778 June 3 Offer by one of the Duke's foresters to thin young oak plantations, and peel off the bark for 3d per stone or 2/- per boll of bark.

1777 Nov. 22 Employment of a man to cut wood at the rate of 1,000 merks per annum, and make stabs and rails from it.

1777 Dec. 29 Payment of £4. 3 to a labourer for planting trees at the rate of 12d per hundred.

Workmen were also employed on such diverse occupations as marking black cattle, carrying compost and spreading it, carrying hay for Dragoons stationed in Hamilton, filling the Duke's Ice-house, and stacking and riddling lime kilns (at 7/6d. per Kiln, May 29, 1778). The customary rate of payment of a day labourer varied from 9d. to 1/- per day, during the seventies.

Exploitation and Use of Lime.

Limestone was worked at Limekilnburn during the seventeenth century, for the use of the Duke, and was still being worked there in 1786, though in a most irregular manner.¹ (See Fig. IV, 12). The principal limestone quarry at this time was the Boghead Lime Craig, and with reference to it the following entry occurs on May 29th, 1753 "There being Sale for Lime and Raw Limestones only for six months of the year And as his Grace has for these several years past kept a man constantly

¹ Limekilnburn and Boghead may be seen on the photostat of Hamilton Barony (Folder - 27).
Attending the Burning and Loading of lime for his own use, I can find no reason why that man mayn't do both, he being capable of Keeping a Clean Book at the Same time, its requisite he should be a man that has had experience in Buying and Selling of lime As well as having Experience of the Greatest Honesty — Seeing partiality have often been complain'd of at this Lime Market, that the Country so much depends upon. A taxman of Boghead was accordingly appointed. Apparently he had difficulty in maintaining his monopoly, because it was alleged that some of the tenants, with permission to work limestone occurring on their grounds, merely for their own use, "Clandestinely sell lime to the eminent disadvantage of his Grace and his Taxman of Boghead," some even taking upon themselves to sell to the Taxman. In 1767 (17 Dec) John Burrell declared that the gross produce of the Boghead Kilns was £802, and the rent £30, in place of the £7 a year which it had been when he found it. The sales in 1765 from Boghead amounted to 279 Kilns or 23,012 loads at 6d, and 150 loads of raw stones at 3d, totalling £627. 3. 9. Roads from different directions converged on Boghead, and it is known that in 1783, lime from the Craig was transported considerable distances to farms in Cambuslang and Dalsziell parishes.

On 17th November, 1765, a recommendation was entered "in the strongest terms to search for and set a working all the Lime Craigs of the Duke's ground". At that time every endeavour was made to

1. Entries 1756, 1st and 3rd September.
acquire for the use of the Duke all the limestone as well as coal that lay within or close to his possessions in Clydesdale. An entry of 3rd October, 1765, records that 24 hutch of coal at 5d per hutch were needed for one kiln of limestone. (p. 55). Lime was calculated in kilns or in cartloads, and not in bolls, as was the case in Strathmore, but it certainly was cheap. In 1778 a kiln of lime at Boghead cost 50/-, and a cart of lime, carried some two or three miles from the Craig cost 1/3d. 1

A common cart was stated to contain 16 cubic feet. 2 In 1783, dung from Glasgow cost the tenant of Greenlees Farm in Cambuslang parish 3/6d per cart while he could procure lime for 8/- per chalder. He naturally favoured the latter. 3 Since a boll is a sixteenth of a chalder the cost of the lime to the tenant was 6d per boll. It may be that the 28,012 loads at 6d. sold from Boghead in 1765 referred in fact to bolls.

It is certain that tenants were given every facility and inducement to use lime on their lands, and there was no lack of fertilisers, whether of lime or of animal manure. Husbandry had for long been weighted on the side of animal husbandry, and both tradesmen and colliers contributed the manure of their animals when required by the estate officials to do so.

Conclusion.

Although the Hamilton Estates lay mainly unenclosed in

1765, the progress achieved in the vicinity of Hamilton shows that the spirit of improvement had been alive for some time. When large-scale improvements were undertaken in 1766, they were organized by a host of qualified officials, acting under the guidance of Commissioners who directed the affairs of all the Scottish estates belonging to the Dukedom. John Burrell, the chief adviser for the Hamilton Estates, enjoyed such a reputation that his "opinion" on estates in various parts of Scotland was requested. Well might substantial tenants be attracted to estates backed by great reserves of capital, administered by able officers, and endowed with so many facilities for works of improvement. Here were supplies of coal and lime, no onerous services but rather a plentiful labour supply, a relatively good road system and ready markets. Unimproved farms offered opportunity for advancement, but on the other hand if the ducal officials were efficient organizers, they were also exacting in their rent demands. It is reasonable to suppose that many of the improving tenants were not incomers, but farmers who had achieved a considerable degree of independence, and who found dairy-farming, fattening, horse-rearing, or fruit-growing a lucrative source of income. A number of present-day farmers on the Hamilton lands have the same surname as the tenants of their respective farms in the eighteenth century.

It has been recorded that within eight years of the commencement of general enclosure, not half a dozen tenants in
the Dukedome would take a farm without enclosing. Certainly
the obstructiveness on the part of tenants which sometimes
was found in the early stages of enclosure proceeded rather
from prejudice and a lack of the co-operative spirit, than
from any community spirit or fear of being dispossessed of
land. To the officials, runrig implied no more than a trouble-
some intermixing of possessions, and the terms of runrig had
lost most of their old significance. The attitude of com-
promise in dealings with tenants already noted, operated in
the acquiescence of officials in maintaining pre-enclosure
possessions provided the tenants would consolidate them, and in
the wide advertisement especially of the larger farms once they
had fallen out of lease, with consequent rouping of them to the
highest bidders. The officials recognized no obligations to
the code of runrig, and yet they showed a spirit of fairness
in their apportionment of farms which may have been grounded in
old traditions. It has been remarked that the Hamilton factor
was rouping 'rigs' in the eighteen-fifties.

It is undoubted that, especially in a region of tenacious
clays, such as Clydesdale, where the labour of straightening and
re-forming ridges involved considerable expense, a wealthy land-
owner with competent officers and overseers could effect speedy
and substantial improvement in a manner that no tenant could
emulate, simply by his own efforts, and only wealthy merchants,
owning small estates could equal.
CHAPTER V.

CONTRASTS AND COMPARISONS.

The low-lying Howe of Angus, the pronounced basin of the Clyde, and the Estate of Penicuik lying athwart the Upper and Lower Lowland Peneplains, do not lend themselves easily to regional comparison. The lands of the seven hundred foot surface surrounding Middle Clydesdale, however, approximate in their physical setting to the greater part of Penicuik Estate, and the lowlands and haughs of Clydesdale are comparable at least in altitude with much of Strathmore, although with significant differences in climate and soil texture. The soils of the greater part of Strathmore, developed on sandstone, are warmer and more friable than the cold tenacious clays so prevalent in Clydesdale, where much of the boulder clay is derived from carboniferous strata, and rainfall is considerably heavier than that of Strathmore. Thus although landowners and farmers in both these regions during the eighteenth century were "finding their account" in fattening cattle, Strathmore was also exporting wheat, barley and oats, whereas the Clydesdale farmers were turning increasingly to dairy-farming, and to the production of grasses, potatoes, and oats for sale in Glasgow.

The estate plans of lands in the Upper Lowland Peneplane, whether in Midlothian or in Clydesdale, show conspicuously large
portions of moorland, outfield, and strips of poorly drained land, while with the exception of the vicinity of policies, trees were virtually absent. John Ainslie's plans of Penicuik Estate, for all their beauty of execution, show the close relationship that was still existing on the more elevated farms at the end of the century, between the pattern of cultivation and the intricate dissection of the glaciated landscape. Considerable stretches of moorland still remained in the farmland of Strathmore in the eighteenth century, but the moors and mosses of the lower lands of Clydesdale had dwindled to insignificance, with the exception of burgh or village common muirs.

Strathmore, which by its nature is a more homogeneous region than Clydesdale, demonstrates forcefully the operation of regional factors in shaping its landscape and economy. During the later Middle Ages, the attractiveness of the region to highlanders of neighbouring glens, and others, and the early development of the linen industry, gave rise to a fluctuating but predominantly increasing population, so that in the latter days of runrig economy, pressure of population was everywhere in evidence. Many farms were overloaded with tenants and cottars, and although there had been fluctuations in the extent of cultivated land, progressive intakes of large sections of moorland had taken place in the seventeenth century and continued throughout the eighteenth century. The runrig system had lost equilibrium and broken down, and many farm
possessions were not only fixed and unequally distributed, but also consolidated into independent units. Small farms and holdings predominated, but on the other hand, the relatively high degree of productivity achieved from the land, while yet in an unimproved condition, had fostered the growth of a class of substantial landowners and tenant farmers. The intermingling of very large farms with small possessions, and the attachment of cott-towns to the larger farms, whose size often was commensurate with the size of the farm, bear witness to the necessary dependence of the greater on the lesser, due to the shortage of fuel which began to be felt in the seventeenth century, and became acute during the eighteenth century. The time, labour and expense involved in procuring fuel, whether coal or peat, retarded the progress of improvements, and the situation was aggravated by the late development of an efficient road system in this region of predominantly rural bias. To offset these disadvantages during the improving era, where the advantages of inherent fertility, supplies of marl, powerful and wealthy landlords and tenants, and a landscape which had evolved considerably from runrig and rundale disposition. Improvements were first discerned in the most fertile districts and those with local supplies of fertiliser.

Contrasts, physical and climatic, caused differential development of the landscape in Clydesdale, and in place of the continuous and conspicuous increase of population observed
in Strathmore, came the sudden influx of industrial or semi-industrial population in the eighteenth century, with the opening up of the basin to industry and commerce - to the districts that already bore the densest rural populations. The estate plans show that before this invasion, the fertile lowlands adjacent to the Clyde, as far upstream as Crossford, and the lower erosion surfaces, were divided into large farms, whose settlements approximated to villages, and which had a remarkably high proportion of arable land. Smaller unit farms on slopes leading to the Upper Lowland Peneplane had more moderate fermtoons, while settlements on the seven hundred foot surface pertaining to large moorland farms, might be quite large, but were widely distributed. There was little room for extension of farmland on the lower lands, and yet colonisation of the higher moorlands by smallholders had not been outstanding prior to the eighteenth century.

Clydesdale had no apparent fuel problem, and where there was not abundance of peat, there was coal, which began to be available in the early eighteenth century. Certain outstanding contrasts observable between Strathmore and Clydesdale may be attributed to some extent to this difference. Whereas it was customary throughout the eighteenth century for tenants in Strathmore to be obliged to perform stipulated carriages, and give at least kane poultry and spindles of yarn as part payment in kind of the rent, no references to payments in kind have been seen in any Lanarkshire Rental, and neither

1. The earliest rental seen was for a year in the 1750s. (Ross Estate).
compulsory carriages nor services were once mentioned in the Hamilton Journals (1753-1790). Clydesdale farmers appear to have achieved by mid-eighteenth century considerable freedom from the onerous feudal services so much deplored in Strathmore in the last years of the century.\footnote{1} According to frequent accounts of the condition of barony mills on the Hamilton Estates, a number of these were in bad condition when the improvement of the estates commenced and had little or no sucken, so that many tenants at that time would have no obligations to perform save a money payment of rent to the laird.

It may be recollected that Roger attributed the presence of large numbers of cottars or 'servants' even on small farms of the House of Angus to the necessity for ensuring adequate supplies of fuel.\footnote{2} Whether because no such need arose in Clydesdale, or because rural population was not so dense as in Strathmore, cot-towns similar to those of Angus were not to be found in Clydesdale, and with the exception of farms in Shotts parish, even isolated crofts or cot-dwellings were rare. The people who flocked into Lanarkshire in the eighteenth century were not absorbed into the farmlands, but rationally were settled in feus along main roads, although they might give part-time help to neighbouring farmers. It has been remarked that even tenants with shared possessions in large farms had achieved considerable independence from each other

\footnote{1} This applies to Middle and Lower Clydesdale.\footnote{2} Chapter III, p. 44.
by the eighteenth century and might have consolidated possessions, while some farms in Clydesdale had been split cleanly into two by that time, each share in the possession of one tenant, and a number of farms of less than a hundred and fifty acres were independent units in the possession of one tenant. Thus a considerable degree of independence had been achieved in Clydesdale, as in Strathmore, but without reliance on subtenants or cottars.

When improvements began in Middle and Lower Clydesdale, they were facilitated by these advantages which Strathmore lacked, namely abundant and cheap supplies of coal and lime, and turnpike roads which were under construction in the fifties. Whereas a boll or 72 stones of coal cost from 8/- to 12/- in the Howe of Angus, the writer of the Statistical Account for Hamilton declared that at the end of the century coal from neighbouring parishes was delivered for 5/- per ton and thirty years previously had not cost half that amount.  

A boll of lime in the Howe of Angus cost from 1/6d. to 3/-, whereas the equivalent of that could be obtained in the parishes near Hamilton for 6d. The disadvantage of prevalent heavy clay soil which made straightening and improving ridges a laborious and costly process, could be overcome by large and wealthy landowners, or by Glasgow merchants who acquired wealth and invested it in the improvement of small estates.

For all the facilities for improvement available to the Hamilton Estate officials, the "moorland farms" of the estate

stubbornly resisted improvement, and the farms of Shotts lay in a backward condition in 1814. It has been pointed out that at the end of the eighteenth century, according to Statistical Accounts and the evidence of estate plans, the lands of the Upper Lowland Peneplane retained old practices and terms that had died out on the lower lands, and lagged demonstrably behind better favoured lands in the manner and amount of progress achieved towards the new order. Even the intrepid Baron, Sir John Clerk, for all his energetic and ambitious efforts, made very slow progress towards the improvement of his Estate of Penicuik. He was confronted with the same difficulties as the present laird of Birkhill Estate, near Lesmahagow, who has discovered that "it is very hard to improve marginal land on marginal rents." He managed to effect some enclosure and improvements on the lower lands standing between five hundred and six hundred feet, but made little impression on the moorlands of the higher surface, with the exception of the neighbourhood of his Policies. He could not afford to make such generous allowance of the limestone that occurred on his lands, as wealthier lairds, nor could he attract efficient and substantial tenants. Even he, however, had little occasion to consolidate farm lands before enclosing them, and the only lands specifically stated by him to be lying runrig, were some possessions pertaining to tenants in Penicuik. Whereas some of the farms of Clydesdale had been splitting into separate entities before the enclosure movement began, a few considerable
farms of Penicuik which had been shared, had come into the possession of single tenants by that time. Although some farms continued to be shared during the early eighteenth century, there was also some development of led farms, possessed by the more capable tenants. Sub-tenants were to be found on some of the farms, but on the whole there seems to have been a gradual diminishing of population. Good peat mosses were plentiful on the estate, and beyond some carriages of peat, coal, and lime, tenants had to give no services other than that of shearing. In comparison with Strathmore it is interesting to note that by 1731, conversional rates for kane hens and capons, and for carriages were frequently given in rentals of Penicuik Estate.

Adjustment of the Old Landscape to Economy.

Although the disposition of rigs in accordance with local variations of slope, often gave rise to irregularly shaped fields, farm boundaries were usually fairly regular by the eighteenth century, and farms frequently conformed to certain recognizable shapes. Their alignment was based on the principle of equal apportionment of different types of land, and the sharing of common mosses, or muirs, or pastures. This gave rise to the prevalent strip or wedge-shaped series of farms, each of which had a narrow frontage on common moor, moss, or river haugh, and which often stretched from one of these features to another. Thus we have seen the three narrow strip farms of

1. Appendix A6 and 7.
Burnroot, Strowan and Sandyhillock in Edzell Parish, stretching from river to moorland, the same formation on a larger scale in the parallel ridge and valley sections of Strathmore, and long narrow farms bounded by tributary valleys on Penicuik Estate, stretching again from river front to common moss. An excellent example of narrow strip farms fronting a common muir, may be seen in the eighteenth century disposition of farms round the Broken Cross Moor in Lesmahagow. Hillfoot strips fronting the hill common grazings have been discovered along the northern edge of Strathmore, along the foot of the Pentland Hills in Penicuik Estate, and in most pronounced and elongated fashion in Douglassdale in Lanarkshire. It is interesting to note that in each of these three districts account was still taken of scuming and rousing, in the eighteenth century.\(^1\) A radial type of wedge-shaped strip Farms has been seen, well exemplified in Clydesdale.\(^2\) These appear to have developed round a common moss of restricted size, on the rounded slopes of a hill, or round a considerable fermtoun, approximating to a village. These strip farms varied considerably in size according to a variety of factors. The strip farms of the Clyde valley were much larger than those of its tributary valleys, and it is understandable that those in the densely peopled hillfoot region of Strathmore should have been smaller than those along the foot of the Pentland Hills. It has been observed that when these farms split to accommodate a greater

2. See Chapter IV, p. 31.
number of tenants, longitudinal sections were made.

Farms sometimes varied conspicuously in acreage according to terrain, and those which were very large or very small often were compact, rather than long and narrow. Compact farms of three hundred acres and over were found on the fertile, and relatively level lands of Strathmore, and similar farms of larger size - some over five hundred acres - were found on lowlands near the Clyde, and on the erosion surface above the Clyde Trench, at the same altitude as the lands of the Town of Penicuik which have been estimated at between 450 and 475 acres.¹ Large moorland farms of the Upper Lowland Peneplane were usually roughly rectangular in shape, and farms on considerable slopes, remote from common moor or moss, such as those on the extensive slopes above Hamilton, were not conspicuously elongated in form. It is understandable that small individual crofts or possessions often found on the outskirts of farms or estates should have been conveniently and compactly shaped.

We have seen that in counties other than Angus, farm houses if not frequently injudiciously exposed on the top of a hill, were often "sunk in the damp of a bog."² Farmsteads were indeed commonly situated on the brow of a river terrace, on the slopes of a hill overlooking a flood-plain or moss, or on the upper reaches of the farmland, near a hill grazing. Generally speaking, the advantage of having a steading situated on or near

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¹ Appendix B, p. 10.
² Chapter III, p. 10, LA - Folder 41.
a main road was not felt until the advent of the turnpike roads, and the local system of roads was of greater significance. The estate to which a particular farm of Strathmore belonged could often be identified by the destination marked on the plan of the road that invariably led towards the mansion house.

Thus roads a considerable number of miles away from Glamis or Kirriemuir (Airlie), were marked 'Road to Glamis' or 'Road to Kirriemuir', and similarly roads which have now disappeared may be seen leading directly from farms in Desmahagow parish to Hamilton, and from farms in Penicuik Estate towards the Mansion. One road which has vanished may be seen on the Northern and Southern Sheets of Clydesdale, linking a string of fermtouns with Hamilton, where the mansion was at some distance from a group of farms, the local Kirk or mill might have a more 'unifying influence. A number of roads of which no trace remains led to the Kirk of Shotts in the Barony of Bothwellmuir, and to the Kirk of Edzell in that parish. Similarly a larger number of roads converged on mills than is now the case. Examples may be seen on the photostat of Edzell Parish and on the Clydesdale sheet - Folder 19. Five roads which have now vanished, converged on Corra Mill on the River Nethan, and according to the Hamilton Journal for 1777 (Dec. 12) the sucken of the mill was 27% ploughs, local tenants of three landowners being thirled to it. A number of old roads from various farms on Penicuik Estate converged on the limestone quarry of Mountlothian, and convergence

1A Folder - 41.
2. See Folder, 13, and Chapter IV, Fig. 5.
of roads now vanished is shown on the mosses of Thripwood and Cander Moss. The number of old roads that radiated from Draffen Farm (Folder 19) shows the important position that a large fermtoun might have in the local economy, and the photo-stat of the Farm of Rodgerton (Folder 29) shows multidissection of farmland by roads, which seems to have been more pronounced in Clydesdale than in the other two regions.

The Decay of the Runrig System.

Co-operative and movable runrig had become rare in each of the three regions under consideration, by the middle of the eighteenth century, and even lands lying rundale or in runrig of single rigs were exceptional. It is surely significant that the contemporary expression was "lands lying runrig" rather than "lands apportioned or worked in runrig fashion. We have heard of smallholding tradesmen-farmers who united to form a plough team rather than depend on the use of the plough possessed by some superior tenant, but their possessions were commonly fixed feus such as were found in Strathmore or Clydesdale, or acres within a town such as Hamilton or Penicuik. It is suspected that on the seven hundred foot surface at least in Lesmahagow parish, and parts of the Upper Ward of Lanarkshire, runrig co-operation was still common at the end of the eighteenth century, but there is abundant proof for the lower and more favoured lands, that most substantial farmers and many small

1. Folder, 19.
farmers, worked consolidated or fixed possessions independently, and individual tenants in all three regions might be in possession of a multiplicity of ploughs by the middle of the century.

With the exception of sections of meadow or haugh land disjoined from the main section of a farm, rundale was unusual in the eighteenth century lands of Middle and Lower Clydesdale, until the approaches to the seven hundred foot surface were reached, and even there the amount was slight. Similarly in Strathmore, it was in the hillfoot regions that rundale of farms was found to any marked extent. On Penicuik Estate the only trace of farm rundale to be found, was the separation of a section of moorland from the Farm of Carsewell.

The estate plan of Auchindory (Folder 9) provides the single outstanding example seen of a farm possessed by a number of tenants in many shares, a considerable number of which were single rigs. An amount of lengthwise and lateral consolidation of rigs had however taken place, and if re-allocation of possessions took place periodically, there was some control of their disposition to give situations convenient to tenants. Since no two shares of the farm were equal, it is doubtful whether there was periodic re-allocation. The most usual disposition of possessions in the shared farms of Strathmore was in compact blocks of rigs, and it is presumed that considerable shared farms of Clydesdale which were said to be lying runrig, lay in the same manner, because otherwise tenants could scarcely have achieved such independence.
Rentals of Strathmore and list of Kane contributions of rent, give indications of equalitarian apportionment of farms, existing at some period prior to the eighteenth century, and of equality of tenure persisting amongst a few of the tenants sharing the same farm. It has however been established both for Strathmore and for Penicuik Estate, that equal payments of rent did not necessarily indicate equivalent amounts of land, by quality and quantity, and conversely that possessors of so-called equivalent fractions of farmland, frequently did not pay identical rents, even in mid seventeenth century. Thus the sixteenths of the town lands of Penicuik were latterly of different sizes, and it may be seen that the persistence of outmoded terminology, or the continuance of customary rent for possessions no longer equal, might give a misleading impression. It is certain that many tenants who shared farms in Strathmore and Clydesdale had widely divergent possessions, and at least in Clydesdale on the Hamilton Estates might hold them on leases of as much as nineteen years.

It has been stated with reference to Strathmore that the possession of a plough and therefore a 'ploughgate' by smallholders whose possessions did not amount to twenty acres, reduced the term to an absurdity. Certainly it appears that the density of the rural population of Strathmore had some effect on the size of the ploughgate, which it is thought, may have been characteristically between eighty and eighty-five acres, almost certainly between seventy and ninety acres.
The list of farm acreages for Strathmore shows however that although roughly two-thirds of the farms were less than a hundred acres in size, acreages varied considerably and there was no approximation to any standard ploughgate, although there were indications that the influence of an earlier unit of measurement still had some bearing on the size of farms. Naismith stated that ploughgates varied from seventy to a hundred and twenty acres, in Clydesdale, and it has been seen that they did vary considerably. It is interesting to note that according to the Hamilton Journals and to the Old Statistical Account, ploughgates were typically between seventy and eighty acres in the low-lying and relatively densely populated parishes of Blantyre and Cambuslang. The farms of Penicuik Estate were large, most of the moorland and hillfoot farms being over two hundred and fifty acres, and if a generalisation may be made from the estimated size of a ploughgate in the lands of Penicuik Town, and the Statement relating to the lands of Linton which showed the ploughgate there to be a hundred and twenty acres, it should be stated that a ploughgate in that district lay between a hundred and ten, and a hundred and twenty acres. It is reasonable to suppose that the moorland farms of Clydesdale, with high proportions of outfields would originally be held in ploughgates approximating to Naismith's upper limit of a hundred and twenty acres. When the Hamilton Estate officials contemplated the enclosure of

1. Chapter III, p. 34.
2. Appendix B, 10.
Motherwell Farm, they decided to divide it into three plough-gates of a hundred and thirty three acres each, and besides arbitrarily creating new ploughgates, it has been recorded that they sometimes were unaware of the number of ploughgates into which a farm had originally been divided. It is apparent therefore that both in Strathmore and in Clydesdale during the Improving Era, the ploughgate was used as a basis for assessment of Ground charges and taxes, and might signify rather the individual or individuals in possession of a plough than the actual possession.

According to Alexander Low, the adviser employed by the Clerks of Penicuik, the tenants of the farms still, at the end of the eighteenth century, "felt for each other" and did not like to usurp each other's possessions. The spirit of good neighbourhood was said to prevail in certain districts of Strathmore where farms were unequally shared and in fixed possession, but on the other hand it has been seen, for example on Hallside Farm in Cambuslang parish, that when consolidation of possessions and enclosure was envisaged, tenants might deliberately obstruct the wishes not only of the landlord, but also of their fellow tenants. The smallholders, at least of Strathmore, who became part-time tradesmen or workmen, seem commonly to have retained a strong community spirit, and some degree of attachment to the soil. Bands of labourers worked together, and whether it was economically desirable or not,
each tradesman or workman liked to possess a cow, sometimes also a horse, and a few acres of land.

It is known that the relationship existing between a laird and his tenants at least up to enclosure times, was often very good, and indeed the solicitude of many modern lairds for the wellbeing of their tenants or workers, still brings the reward of faithful service. It has been said that at least one duke of Hamilton shook hands every day with the prisoners in his gaol, and members of the ducal family were on familiar terms with their neighbours in the Hietoun Street. The fatherly attitude adopted by the laird is well seen in Sir John Clerk's granting a feu to his gamekeeper for "as long as he behaves himself as becomes a good gamekeeper." It has been seen that the autocratic attitude adopted towards tenants on the Strathmore family estates, was the result rather of customary bondage due to regional factors and the attitude of the estate officials, than of an imperious attitude on the part of the lairds. The Earls of Strathmore have been conspicuous for generations for their friendly and solicitous attitude towards tenants. Estate papers and rentals give some concrete information about the amount of security and freedom which tenants enjoyed during the first half of the eighteenth century. The Clerks of Penicuik were granting tacks for as long as fifty-seven years in the late seventeenth century, but by 1743 Sir John Clerk had come to the
conclusion that they did not necessarily give incentive to improvement and enclosure. Leases granted to farmers in Strathmore during the first half of the eighteenth century were frequently written or verbal tacks for from five to ten years, although it is thought that most cottagers held their possessions merely from year to year. It is thought, however, that smallholders at least on Glamis Estate were accorded a fair measure of security and consideration. Although information for Clydesdale is lacking until mid eighteenth century, the Hamilton Estate tenants by that time were customarily in possession of tacks of up to nineteen years. It has been observed for both Penicuik Estate and for the estates examined in Middle and Lower Clydesdale, that if tenants had not achieved complete freedom from carriages and bondage, most of them had it in their power to do so.

Enclosure and Improvement.

The two powerful and wealthy families of Hamilton and Strathmore began to enclose and lay out the immediate surroundings of their respective mansions during the seventeenth century. By 1708, extensive and elaborately designed policies, bearing the marks of both English and French influences, were beginning to take shape at Hamilton, part of one of the long avenues lying incongruously amidst a network of smallholdings. The earliest plan extant of Glamis, dated 1746, shows the Mains of Glamis

lying in orderly enclosures in front of the Castle, and no formal policies. Before 1765, if little progress had been achieved on Glamis Estate towards enclosure, eminent surveyors had at least surveyed and reported on sections of the estate. The enclosure of farms in the vicinity of Hamilton had made considerable progress by 1765, but it is interesting to note that the general enclosure and improvement of both estates began at that time. The middle sixties for both estates saw the beginning of a period of extraordinary and widespread activity, and since this outburst of activity was paralleled on a number of large estates in the Lothians and elsewhere, during the years between 1765 and 1775, it is presumed that the Act of 1770 which facilitated the improvement and enclosure of entailed estates, gave emphatic stimulus to the owners of extensive acres held under entail. It has moreover been observed that according to the evidence of contemporary writers, the dates when new significant crops came into general use, and the evidence of the estate plans, the enclosure movement in Strathmore increased in momentum and became widespread during the seventeen-seventies. Plans drawn in the seventies preponderated in Middle and Lower Clydesdale, and it has been observed that the same generalisation might be made about the total collection catalogued. This must remain however, merely a generalisation indicative of increasing momentum of the enclosure movement at that time.
Improvers who had made conspicuous progress in Strathmore and Clydesdale before 1765, included eminent personages who held public posts in England, wealthy merchants turned laird, and landowners of moderate estates in fertile districts who belonged either to local societies of improvers, or to the noted societies of East Lothian or Edinburgh. The estates improved by public dignitaries with office in England, such as that belonging to the Lord Privy Seal at Belmont, near Coupar, and others mentioned in the County Reports, might be differentiated from surrounding estates by the employment of English surveyors and officials, and the use of the Rotherham plough. Wealthy merchants sought small estates in fertile districts near the River Clyde, and a number of small estates owned by lairds of Strathmore who came under the influence of Dempster and his improving Society, or of the East Lothian Improvers, were also in eminently fertile situations. A number of these moderate or small estates were completely enclosed in the fifties and sixties of the eighteenth century. Since fuel and fertilisers were more evenly distributed in Middle and Lower Clydesdale than in Strathmore, the enclosure movement first became general on the more favoured lands, where were greater reserves of capital.

For all his public offices, his experience and enthusiasm Baron Sir John Clerk could not effect large scale improvements at Penicuik. The adviser, Alexander Low did not report on Penicuik until 1797, and the first laird of the estate with sufficient capital to effect the transformation of the estate
was Sir George Clerk, laird from 1798 to 1867. The Douglas Estates not only in the upper ward, but also in parts of the middle and lower ward, were also in initial stages of improvement at the end of the eighteenth century, and it has been observed that progress was slow on the moorland farms of the Hamilton Estates, and in the glens and foothill regions of Strathmore. It is evident that before a large estate could be competently improved, large reserves of capital and a considerable labour supply were essential, and neither of these essentials was easily procured by lairds of estates, on the Upper Lowland Fensplene.

Whereas during the Improving Era, the Dukes of Hamilton derived considerable revenue from the sale of coal and limestone, the Earls of Strathmore derived great profits from the sale of the shell marl of Forfar Loch, and both landowners found tradesmen a lucrative source of rent, as well as a part-time labour supply. In this latter respect they might well have provoked the envy of Sir John Clerk, who regretted experiments which he had made in combining two or three small farms, and discovered from observation that "small Tenants near a Royal Burgh or near Coal, pay their rents best", being only partially dependent on the produce of their lands.

Although as early as 1703 he had fallen exceedingly into the "humure of planting and making of nurseries", he admitted ruefully that "a multitude of Houses is never to be thought of

where Timber is expensive in itself or difficult in its carriage,"¹ although he hoped to attract industry to the Town of Penicuik. Highlanders from the glens and Irish labourers from Glasgow served to augment the abundance of day-labourers available to the Glamis and Hamilton officials, and it may be recollected that John Durrell in his Report on an estate in the Upper Ward, emphasised the need for the "Activity, Attention and the Bodyly Labour of many" before improvements could be achieved "it being an uncontraverted maxim That the greater number of individuals any Landholder can plant upon his Ground, the more he will increase its Value..."²

Considerable staffs of professional officers shouldered the responsibility of organizing the improvement and enclosure of the Hamilton and Glamis Estates, and with the aid of grieves, overseers and day-labourers, they could superintend and control operations. Survey of farms for valuation and improvement was thoroughly executed on Hamilton Estate, and the officials of both estates superintended the staking out of enclosures and their construction. It has been seen that on Glamis Estate large enclosure grids of ditch and hedge, might be constructed as one operation by companies of workmen. The straightening and improvement of ridges, planting of trees, construction of roads, farmsteads and cottages, as well as

². Chapter IV, p. 17.
such an operation on the sowing of grass-seeds, might be the immediate concern of estate officials on these large estates. Although tenants might be accorded a measure of consideration and of freedom, they had to abide by explicit regulations governing husbandry and improvement. The system of letting farms by roup was practised frequently on both estates as well as on Penicuik Estate, under Baron Sir John Clerk, but with better results in the case of the two former estates. Substantial tenants were attracted to fertile lands possessed by wealthy landowners, where they were given every facility to aid them in their improvements, while Sir John Clerk might have no alternative but to take one of his own "young bungling disorderly country fellows" for a tenant. Rapid improvement achieved by co-operation of officials, tenants, and workmen, gave rapid rise of rent, and increased momentum to the enclosure movement on Glamis and Hamilton Estates.

It has been seen, in all three regions that the first attempts at enclosure by laird or tenant, were frequently independent small enclosures well adapted to the configuration of the land, whereas subsequent large-scale enclosure projects, conforming to the commended pattern of regular rectangles or squares, might be imposed on farmland, regardless of topographical detail. Perhaps too much regard was given to this ideal by lairds in Strathmore and Middle Clydesdale, but the workmanlike essays at enclosure shown on most of the plans of farms in these regions, are in marked contrast to the typical early efforts on the lands of
the Upper Lowland Peneplane. In such lands, where general enclosure was impracticable, the value of a few enclosures was appreciated, and these often were small enclosures, made in the old croft lands. Other and usually larger enclosures were gradually added, and resulted in a discordant patchwork of fields of differing sizes. Some of the early enclosures on Penicuik and Douglas Estates were partially bounded by strips or patches of marsh or moss, and some of the Douglas plans showed the persistence of runrig influence, in that enclosures were long rectangular strips, apparently formed by the straightening and consolidation of rigs, and were shared in alternating fashion by the farm tenants. This practice, however, was not entirely confined to the more backward districts, and has been found in various parts of the Lowlands, for example on the farm of Monktonhall, Inveresk parish (1757) (See Fig. V, 1). The early efforts made on both the Douglas and Penicuik Estates lacked the guiding hand of a staff of skilled experts.

Where definite Plans of Division were followed, they commonly bore some relationship to the system of husbandry to be adopted, and particularly the rotation of crops. On this principle, we have seen that farms in Strathmore might be divided into from five to eight or nine equal divisions, while the Hamilton officials favoured multiples of three, and especially divisions into nine equal parts. Farmers of Strathmore who wished to practise mixed farming might divide their outfields into large enclosures usually bounded by stone dikes, suitable
for livestock, while constructing smaller enclosures often of ditch and hedge for the arable section. Grass parks on the Hamilton Estate were frequently large - from forty to sixty acres - and enclosures varied from twenty to forty acres on large mixed farms to between ten and fifteen acres on small and predominantly arable farms. The influence of the omnipresent smallholder in Strathmore, was seen in frequent divisions into tiny fields of a few acres or strip feus, such as those seen near Glamis, or on Burn and Arnhall Estates. Some of the early enclosers of Strathmore and of Clydesdale constructed enclosures of much less than ten acres, but in the later stages of the enclosure movement fields of from ten to twenty acres became the most prevalent. The choice of type of enclosure was, especially in Strathmore, frequently dictated by local factors, and various types of enclosure might be found within single estates and farms. It has been seen that on the Hamilton Estate at least, the choice made, for reasons of economy, of large stone dike enclosures in preference to a greater number of small ditch and hedge enclosures, might be instrumental in determining the type of husbandry to be practised.

Sir John Clerk took a personal interest in the enlargement and adornment of his pleasure grounds, on which he bestowed great care and attention, but it appears that the person most frequently responsible for the designing and laying-out of policies was the surveyor. The lairds of moderate estates in
the early days of enclosure in Strathmore, might be content with lawns surrounding the mansion and pleasant tree-fringed grass parks, and when elaborate designs for improvement of policies were later presented to them, effect merely a modest compromise. Principal landowners in whatever region, usually enlarged their pleasure grounds considerably, and had them formally and impressively laid out. The mains steading - and sometimes the greater part of the farm, as was the case at Glamis - was frequently removed to a greater distance from the mansion, and enlarged during the process of enclosure. The lands immediately surrounding the mansion were often, understandably, more densely peopled than the rest of the estate, and this was especially the case in Strathmore where groups of ancillary cottars might be found living on, or close to the mains farm. The practice of enlarging policies and mains farms, and of proceeding next with the enclosure of farms near the mansion, resulted often in the exodus of smallholders and small tenants being most pronounced in the environs of the mansion. We have noted the disappearance of the Inner Circle holdings of Glamis, and the regret expressed by the writer of the Old Statistical Account for Hamilton parish over the depopulation of the rural parts of the parish. It has been observed that on a number of estates - for example Clunie, Balbegno, Hallyburton - the possessions of smallholders, still lying runrig and rundale with the Mains farm at the commencement of enclosure, complicated the process of consolidation of the
farm. Tenants or sub-tenants dispossessed from such acres or from fermtouns which were absorbed into policy or mains, sometimes acquired smallholdings, and sometimes augmented the population of the nearest village or town, becoming tradesmen or day labourers. The former development may account, for instance, for the string of smallholdings that lined the western wall of the Hamilton High Parks in the later part of the eighteenth century, for a similar development on Lour and Jerviston Estates, and to a lesser extent on Balbegno Estate.

Both John Burrell and Alexander Low, reporting on the condition of farms in their respective estates, recommended the early enclosure of farms within sight of the mansion, in Alexander Low's words "for civilising the prospect", but doubtless this was the most convenient way of beginning the general enclosure of an estate, and unless the most fertile farms lay elsewhere, or tenants were effecting their own improvements, it was the procedure usually adopted. Little attention was paid to Maxwell's suggestion that enclosure beginning with the extremities of an estate would be economical because of the sharing of the cost of march boundaries, and thus there was often discordance of pattern where the estate boundaries met.

There was a marked tendency on the part of lairds in all three regions to let outfield lands of large farms, as separate units, and have farmsteads constructed on them. Such was the
fate of the outfields of the Town of Penicuik, which became the farms of Cornbank and Eastfield. The remaining section of outfield, the Glaskills, was profitably let out in parks for grazing, in the manner commonly adopted in both Strathmore and Clydesdale. Whereas outfields in Strathmore might also be let profitably to smallholders for growing flax, and to a lesser extent potatoes, they were commonly let out for production of potatoes, turnips or grasses in Clydesdale.

It is quite apparent that neither the Glamis nor the Strathmore officials pursued any deliberate policy of enlarging and consolidating farms by a process of eviction: rather were they in their attitude most accommodating, and even anxious to retain small tenants and smallholders - so long as they were able to meet the increased 'improving rents.' Both the Glamis and Hamilton officials appeared to regard enclosed farms as sets of enclosures, which might be divided to accommodate the tenants who were desirous of possessing them. On Glamis Estate tenants who wished to continue to share a farm during the enclosing era, might continue to do so, on similar terms though with separate leases, sections of improved and enclosed farms might be let to small tenants, and 'pendiclers' might possess small infield or outfield parks laid out for them, on leases of twenty-one years. Certainly smallholders were sometimes obliged to resign possessions which interfered with the enclosure of larger farms, but they appear to have been given equivalent amounts of land elsewhere. A similar attitude
prevailed to a most marked degree on the Hamilton Estates, and in both cases, it was only when large shared farms fell entirely out of lease, and were let by roup, that the substantial tenant who was highest bidder might step in, and take as large a farm as he desired. After his initial experiments, Sir John Clerk declared that a hundred acres was a sufficient farm in any man's hands, but although he did subdivide a few large farms, he continued his practice of letting more than one farm to tenants of whom he approved. At the end of the century the Penicuik Estate adviser, Alexander Low, declared his policy of enlarging farms to tempt efficient farmers with an inclination towards animal husbandry. Both in Strathmore and in Clydesdale were there examples of small farms of less than a hundred acres being increased in size, if not combined, and of excessively large farms, over three hundred and fifty acres, being subdivided, during or after enclosure. There was a process of levelling up or down towards a size that would make the practice of the new husbandry economic and give increased rent.

In the hillfoot regions of Strathmore and other districts where fuel was scarce, and in fertile districts where there were large arable farms, there was a marked tendency for cottagers to be replaced by hired servants, but the value of the cottager was a controversial subject in Strathmore. Sub-tenants were not conspicuous at least without the fermtouns, in Middle and Lower Clydesdale before the enclosure movement began, but
according to Naismith there was a marked tendency for servants to replace cottagers, in the county as a whole. Certainly an effort which was not altogether disinterested, was made in all three regions to settle smallholders on reclaimable patches of moorland or moss, and in the industrial areas to settle tradesmen in feus along main roads.

There seems to have been a general tendency for those landowners who began early to improve their estates, to grant long leases of twice nineteen years or longer, and then to discover that tenants were over secure and made no efforts to improve and enclose. Then came a period of reaction, during the sixties and seventies, when many lairds hesitated to grant leases for as long as nineteen years, in case the tenant should have a disproportionately large share of the profits which came with improvement. During the period when enclosure of a farm was contemplated, the tenant or tenants might be granted no more than verbal and yearly leases. In the later seventies, the lease for nineteen years gradually was accepted as the most suitable, provided the tenant was not expected to bear the entire cost of improvement. In both Clydesdale and Strathmore, the more affluent landowners generally preferred to meet the greater part of the cost of improvements on payment of interest by the tenant, and to share the upkeep of enclosures, farmsteads and sometimes plantations, with the tenant. Those tenants who held farms on long improving leases of fifty or more years could become
affluent, and numbers even of those who had to pay dearly for the facilities offered to them on the estates of wealthy landowners, became sufficiently prosperous to acquire possession of more than one farm. There is no doubt however, that sudden increases in rent, even with the alleviation of 'eases' for the first few years, brought about the ruin of many of the less successful or fortunate farmers. The system practised on a number of Strathmore estates whereby the rent was increased gradually during an improving lease, was surely more just and favourable to the tenant then the Hamilton Estate system of giving substantial allowances for a few years only, before expecting the full "improved rent". However, complaints were made in Strathmore as well as Clydesdale about considerable competition for leases having raised rents and the avidity of landholders to a great pitch. Examples taken from Clydesdale, Strathmore and Penicuik in the heyday of its improvement, add weight to the protestation made by the minister of Kinnaird parish, Perthshire: "From the sudden and great rise in the value of land, proprietors are apt to entertain extravagant notions of its value, and to demand a price for it, not according to what it is known to have produced, even when laboured upon the best plan of improvement yet discovered, but according to their own chimerical prospect of what it may come to be worth, in consequence of farther improvement." It has however been established that although exorbitant rents might be charged,

1. Naismith, 1798, p. 68.
a modicum of tolerance and patience was exercised so long as a tenant conformed to regulations and did his best.
CHAPTER VI.

CONCLUSION.

Examination of some three hundred and fifty estate plans representative of three widely separated lowland regions of Scotland has revealed for each region a landscape far removed from the harmonious adjustments of the traditional runrig system. Seldom has even an approximation to the standard ploughgate of a hundred and four acres been encountered, and no instance has been found of a farm which was shared by more than two tenants being equally apportioned. There is incontrovertible evidence however, that many farms at some period were equally apportioned amongst the joint tenants possessing them, that during the eighteenth century at least lip-service was often paid to the old fractional division of farms, and that many of the inequalities of tenure apparent by that time had come about by multiplication of original shares. Moreover, groups of farms sometimes presented a degree of uniformity as regards disposition and acreage, and it is thought that a certain amount of conjecture about conditions existing in times of movable runrig and of the process of evolution away from those conditions is justified. There seems, for instance, to be a strong case for the hypothesis that there was a marked difference between the development of the type of farm which has been called the large compact farm and that of the type which may be called the pronounced strip farm.

The diverse regions of Clydesdale lent themselves more easily than those of Strathmore to the classification of farm groups by
disposition and acreage. Regional factors, such as shortage of fuel, caused considerable dissemination of rural population in Strathmore and relative infrequency of series of farms of commensurate size and settlement type. Unusually large farms of over three hundred and fifty acres, and sometimes over five hundred acres, were found in the most favoured, or in the most infertile, districts of Clydesdale. These farms were compact in shape, even the large strip farms of the Clyde Valley being broad enough to conform to this pattern, and the fermtoun was usually centrally situated, large, and often the only settlement on the farm. These large compact farms were typical of fairly level surfaces, whether erosion surfaces or lowlands close to the Clyde, and it has been observed that similar farms were to be found on fertile lands of slight relief in Strathmore. Near the Clyde, between Crossford and the Ross Estate, associated with large farms was to be found a number of fermtouns most of which bore the Saxon "ton" as name-ending and some of which have been described as eighteenth century villages by local historians. According to the plans, they might be considerable settlements housing from three to six substantial tenants and a number of others. The centrally situated fermtoun of Draffen (684 acres) on the five hundred foot surface, in design even more resembled a village with its pronounced main street. It is interesting to note that the town of Penicuik in the late seventeenth century was a farm settlement containing the steadings of at least three substantial tenants, the lands of the town lying unfairly compact fashion and extending to almost five hundred acres, although not entirely on an erosion surface. When these large compact farms
came to be allocated in fixed possessions, they might be divided into wedge-shaped units by lines radiating from the fermtoun in the manner adopted on Draffen, but sometimes awkward divisions lying runrig and rundale might remain fixed until the enclosure era. We have noticed the difficulties confronting the Hamilton officials when they attempted to consolidate the possessions of the eight tenants of Hallside (465 acres) and may note that, perhaps due to the piecemeal subdivision of that large farm, there was no longer one nucleated settlement and that four of the tenants resided on the farmland outside the fermtoun. Close to the farm of Draffen and on the same surface, four farms of similar acreage — each between a hundred and forty and a hundred and fifty acres in extent (total 560 - 600 acres) — radiated in wedge fashion from a common moss of restricted size, in distinction from a fermtoun as was the case in Draffen, each of the farms being a distinct entity. It seems reasonable to suppose that when the sharing of some moss, moor, hill grazing or river front induced the strip type of farm pattern, the strips might, with a facility impossible on the compact farm with nucleated settlement, be split lengthwise to give fixed possession to existing tenants or to accommodate an increasing population. Examples of such lengthwise division have been observed in Clydesdale for the accommodation of one or more tenants. Thus although some examples of rundale occurring in this type of farm have been seen, the most common development was the establishment of long independent strip farms, whose size and number of tenants in possession varied with pressure of population. On Panmure Estate in Strathmore, where pressure of population was evident, the strip farms were
usually small and were sometimes possessed by a few tenants whereas divisions of strip farms in Clydesdale were commonly larger than a hundred acres and in possession of one tenant. Thus whereas the acreage and nucleated settlement of the large compact farm tended to remain fixed, the strip farms could easily undergo a process of splitting or of consolidation. A number of the large compact farms of over four hundred acres - such as the lands of Penicuik - were not divided into independent units until the laird began to make farm units of the outfields.

The Hamilton Estate officials discovered that at one time tenants had been at great pains to give every man his share of each field, by quantity and by quality, even going to the length of dividing rigs. It is possible that when the dividing of rigs became necessary the fermton was becoming overpopulated, and the resulting fragmentation would eventually provoke a counter-movement towards consolidation. The photostat of Auchindory Farm (Folder 9) shows that where lengthwise combination of rigs took place, it was possible to unite two blocks of rigs and maintain uniformity of size. This was doubtless a usual practice, and it is interesting to note that the question arose in the Decreet of Division of the Runrig Lands of Tranent (1773) as to whether two-rig or three-rig lengths should be combined. When the number of tenants of a farm increased and possession became correspondingly fragmentary, the equilibrium of runrig was lost and the advantages of lateral combination and fixation of rigs in a convenient manner may first have occurred to tenants who no longer were on an equal footing. Thus individual rigs gave way to fixed compact blocks, usually of varying size, and the sum total of the possessions of any one
tenant became a fixed share which no longer bore any essential relationship to the other shares of the farm. In this manner the raison d'etre of runrig allocation and husbandry was forgotten, and the way was paved rather for friction than for co-operation. It has been seen that often individual possessions had been consolidated before the enclosure movement began, but they might become fixed at various stages of evolution in a most unsatisfactory manner so that a tenant had part of his possessions consolidated and part lying in runrig with the holdings of other tenants who no longer lived near him and who may have had no feeling of goodwill towards him. Where good neighbourhood and co-operation had ceased to be, the final consolidation of holdings during the enclosure movement could not but be beneficial. More than the result of enclosure or of any deliberate policy, it was the rapacity of landlord or substantial tenant causing exaggerated rents, which represented much more than the proper return of improved land, that gave increasing opportunity for those who had to take away from those who had not. The system of grouping farms after wide advertisement made it possible for an incomer to gain a large possession at the expense of outgoing tenants who were strangers to him. Thus although the adoption of the new principles of husbandry and the process of enclosure undoubtedly constituted a revolution with far reaching results, agricultural, social and economic, in a sense it came as the dramatic culmination to a process which had for long been in evidence.

All the forces underlying the New Order conspired to effect a complete re-orientation of what have been termed local economics to suit a more regional economy, the main arteries of which were the new turnpike roads. Although the constructors of the early
1. Earliest road.
2. Thief's Road.
3. First turnpike road.
4. Present main road.
5. Mill road.
The River Tyne is shown.

Fig. VI.1.

Road development near Haddington.
turnpikes often had more regard for surface than for gradient, gradually increasing emphasis was laid on the desirability of choosing the easiest gradients possible. As marshes and mosses were reclaimed and improved, new roads were constructed further down slopes, steadings and other settlements being attracted to them. Thirlage was abolished, common mosses and moors were enclosed, local supplies of peat and lime were held in less esteem as road and eventually rail transport improved, main roads gave easier access between farmsteads, and enclosure speeded the disappearance of roads which had become redundant. Balbegno Estate plan (Folder 5) affords a good example of the disappearance of a road crossing a slope and also of its associated settlements as a consequence of the construction of a new road on lower and more level ground - a road with typical right angle curves bent round enclosures. An excellent example of progressive downward movement in road construction, and of changes in emphasis with changing economy, may be seen near Haddington. The earliest road ran along the ridge of the Garleton Hills close to the summit, and is now merely a farm road. The next road was a mill road which crossed the slope obliquely pursuing a direct route between Longniddry and the barony mill and was called, perhaps appropriately, the Thief's Road. Whereas Barney Mains steading stands on the highest road, the steadings of Beanston and Beanston Mains are found on the section of the Thief's Road still in existence. Remnants only of another millroad which headed for Beanston mill, regardless of slope, may be seen today. The first turnpike road passed close to Amisfield

1. See Fig. VI 1. Reduction from tracings made from the Wemyss collection of estate plans, and Folder
Mains and Abbey Mains, but now they are a short distance away from the lowest and final turnpike road which still dominates the road system. Roads connecting the farmsteads on the slope with the main road run straight towards it, joining it at right angles. Thus the combined influence of the enclosure movement and of the desirability of linking farms as directly as possible with the vital arterial roads produced not merely a simplification of road systems but also a new geometric pattern which obscures from the casual observer such traces of old dispositions as have in fact persisted. The process of levelling up and levelling down farm acreages, which has been mentioned in the previous chapter, has further served to minimise differences which once were striking, but it is quite apparent to the interested observer that many characteristic features of the old landscape have not been entirely obliterated, and indeed have exerted persistent influence over the shaping of the landscape which is ours today.

With regard to the progress of the Enclosure Movement and Agricultural Revolution, it is doubtful whether much discrimination could be made between the periods when what may be termed the general enclosure and improvement of the lower lands of the Lothians, Clydesdale and Strathmore took place. It has been seen that although prominent noblemen commonly began early to effect improvements on their extensive estates, it was not until the sixties and seventies that sufficient momentum and capital had been acquired to enable general improvement to be undertaken. Although landowners of small estates situated in fertile districts had in some cases achieved complete enclosure of their lands by the fifties or sixties, new crops, and especially the significant turnip, did not come into
general use until the sixties and seventies, nor was the enclosure movement widespread until that time. The considerable and wealthy landowners could with the aid of trained officials, overseers, and a large labour supply, effect general improvement in a manner and on a scale that lesser lairds could not emulate. The effects of increasing altitude, poor terrain, distance from main roads and from the sea, and low financial resources acted as a perceptible brake on the progress of enclosure and improvement on the Upper Lowland Peneplane. Not only did general improvement commence about a quarter of a century later than on the lower lands, but also the early efforts at least were conspicuously halting and tentative in nature. The evenly spread efficiency of execution and adherence to current doctrines and theories which characterised the improvement of large estates were hardly possible in such unpromising territory. Cognizance must yet be taken of the human factor, and not all lairds of large estates were equally progressive or enlightened in attitude nor, indeed, equally wealthy. Strathmore has afforded examples of neighbouring farms pertaining to the extensive estates of different lairds being at quite different stages of development before enclosure began, being improved at different periods, and being subjected to widely varying improvement policies. Thus one farm might have a well-built steading, good equipment, efficient enclosures, the hedges being tended by an estate hedger, and rigs straightened and improved under official direction, while the neighbouring farm, pertaining to another estate, would exhibit the results of amateurish and half-hearted efforts undertaken by the tenant alone to achieve some sort of enclosure, to construct his own house and to improve his farm according to the regulations of
Fig. VI, 2. Newton Farm, Newton Parish, Midlothian. 1754.
Fig. VI.3. Newtown Farm, Newton Parish, Midlothian. 1756. See Fig. VI.2.
his lease.

The transitional element is so conspicuous a feature of the evolution of landscape and economy during the period under review that it is difficult to know how much weight to attach to old terms that continued in usage, or to choose reliable criteria for assessment of progress, and manifestly inexpedient to attempt regional generalisations. We have seen that the ploughgate had lost its old significance, and a mailing or a cot-possession might be larger than a so-called farm. Rentals might make simultaneous mention of payments in merks, Scots pounds and sterling, while some casualties were converted to money payments and others were not. A farm might be transferred from runrig to a completely enclosed condition within a year or two, while on the other hand, enclosure might remain partial for years. (See Figs. VI 2 and 3). Similarly Headrick demonstrated the influence of the human factor and the long time that elapsed before complete enclosure was achieved even in fertile districts by remarking the presence in 1813 of pockets of land lying runrig, and worked in something approximating to the runrig fashion, amidst prosperous enclosed farmlands of Strathmore.

It has been seen that factors of soil, climate and reward, rather than ignorance, might condition the adoption or rejection of certain root crops and grasses, and that mere introduction of such crops did not signify general adoption. Improved versions of the Scots plough were popular both in Clydesdale and in Strathmore in the latter part of the eighteenth century, and its continued use did not necessarily denote backwardness. Many farmers of both regions had both the improved Scots plough and Small's plough, but preferred the former for breaking-in their land. It is thought
that more valid criteria of progress or improvement than those depending on the adoption of new crops or the new light plough are to be found in estate rentals or account books. Improved rents were usually substantially higher than those obtained from unenclosed or unimproved land, and could not be sustained unless some measure of improvement had been effected. The construction of substantial farmsteads or cottages costing many times the price of the old traditional houses is indicative of increasing capital on the part of laird or tenant and surely of a measure of improvement.

A modern laird, Major Roger Hog of Newliston, West Lothian, has made it clear that the enclosure movement did not terminate in 1820, and that problems of securing sufficient enclosure and of finance are still in evidence. The last word may therefore be given to this most vigorous and progressive laird of an estate, which was noted in the eighteenth century for its early and excellent improvement. In a letter dated 28th February, 1951, he stated

"As regards 'enclosure', surely it has been a progressive process and is still in progress? All my farms are enclosed so far as "march fences are concerned, but we are still at it getting all "the fields enclosed individually to meet the modern (in Fife but "not everywhere in Scotland) requirement of a three or four years "grazing ley in the rotation of every field. And on the Haugh "Farm here we are spending a lot this year in internal fencing "to meet the same need. No wonder farming is becoming uneconomic to the owner! Denmark do it with electric fences, but they don't "raise sheep. Fences which will stop both sheep and fat bullocks "will be the ruin of us!"
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Sir James Clerk, and Sir George Clerk.
Rentals. Sir John Clerk. John Ainslie's Plans of 1796
The Plans.

Report regarding the Estate of Pennycuik, Alex. Low.

Objections and Answers to the Adoption of Turnip
Husbandry.

Mr. Low's policy for the division of farms.

Mr. Low's attitude to enclosures, hedges, dykes,
shelter-belts and limestone.

Advice about the management of farms.

Sir George Clerk.
Sir George Clerk's improvements. Rental of 1812-18.
Farming in the nineteenth century.

Twentieth Century - notes.

Commons of Penicuik Estate.
Fig. A.1. The faint outlines of rigs may be seen on the Pentland foot grazings of Luffen Houses Farm.
PENICUIK ESTATE.

The compact estate of the Clerks of Penicuik lies athwart the contact slope and margins of the Upper Lowland Peneplane (750-900 feet) and Lower Lowland Peneplane (500-550 feet), in Midlothian. The intractable moors and mosses of the higher lands bear witness to the marginal character of much of the land, and still offer stubborn resistance to the improver. A farm situated by the crest of the Upper Lowland Peneplane, which in 1796 had more than its share of bog, moss and moor, was aptly known as 'Coldshoulders,' and this might have been applicable to the whole bleak moorland in the seventeenth century. Winds blew unchecked across the glaciated wilderness, where farmers wrestled to win cultivable patches from land that was alternately too wet or too dry. What needy tenant or enterprising and ambitious landlord attempted, is tried again to-day with government encouragement, and though the conquest has been made of the lower parts of the estate, there is still the oscillation between moor, pasture and arable land, that is so apparent on the higher lands, as shown in the plans of 1796. There one may see old sheep stells in the midst of arable fields, rig strips of pasture interspersed with patches of arable, and name references to rigs in abandoned moor, (See Folder). The variety of soil and exposure gives a challenge to effort, though making homogeneous culture difficult.

Writing in 1741 Sir John Clerk states "I know very little
ground in the Lothians so cheap set and so improvable as the Baronie of Pennicuik, for I dare say that if it was measured it would be found that I do not receive for it above two shillings ster, or half a crown at most the Aicre, the rent being at this time little Above 500 lib. ster. It is true that for some Aicres I receive 10 or 12, 15 or 20 shillings stg. but for others I do not receive 6 pence." Mr. Cooper, parish minister at Penicuik, writing for the Third Statistical Account (1952), mentions the average rent per annum per acre to be 20/- for land mainly arable, and 2/6 for moorland and hill, but this represents a decline since the peak period last century. (See Folder 43).

Where the Old Statistical Account numbers forty-four ploughs in the parish, Mr. Cooper to-day mentions forty-one tractors and thirty-four farms. The farm pattern has changed with changing policy and orientation to new economy. With the disappearance of common moors and mosses, the use of coal for fuel, and transport by rail of lime, came a new alignment of farms and farm interest, to the through roads and to some extent, the railway.

The western boundary of the estate runs along the slopes of the Pentland Hills at 1100 or 1200 feet, the southern and south-eastern crosses the high moorlands where they reach some 900 feet, and within that rim the two peneplane surfaces, separated by a marked transition slope between 750 and 550 feet, make an obvious step formation. Though gradient is gentle,
especially on the upper surface, it is only on some of the largest extents of moss that the aspect is monotonous. Glacial sands and gravels diversify the landscape, which in parts is given a billowing appearance by spreads of drumlins, kames and eskers. The untidy patchwork of arable and uncultivated pasture, moor or bog, shown on numbers of the 1796 plans usually corresponds well with the configuration of the 'howes' and 'knowes'. In a few of these the cultivated patches have become so enlarged as to represent an archipelago of islands separated by narrow straits of bog or pasture. (See Folder 67-66).

The plan of Wellston illustrates well a strip of arable kame, bounded mainly by meadow, moss, bog, and pasture. (See Folder 60). Such kames to-day are more typically wooded or covered with coarse grass. Drumlins, which were commonly cultivated or referred to as excellent sheep pasture, appear to have been known locally as 'castles'. The boulder clay varies in degree of fertility, that developed on the sandstones and volcanic rocks near the Pentland Hills being more fertile than the heavy carboniferous clay, that commonly gives rise to peat on the higher moorlands. Alexander Low in his Report on the Estate (1797) classifies the lower farms surrounding Penicuik as consisting mainly of clayey soil, but here too, are sands and gravels.

A significant outcrop of volcanic rock, forming a bench that runs along the Pentland foothills at about a thousand feet, is a favoured site for the hillfoot farm steadings, and is variously
Fig. A.2. Copy of a rough sketch in the Rental for 1743 (Mountlothian Farm) to show the occurrence of limestone.

Fig. A.3. Ruined limekilns at Mountlothian.
described as affording excellent sheep grazing, or fine turnip soil. In the early eighteenth century Sir John Clerk knew that limestone outcropped round the rim of his lands and drew a sketch-map to show outcrops in the entire Midlothian Basin. (See Fig. 92.) He understood the possibilities of both limestone and coal, and was interested in the acquisition of land productive of either. Building and dyking stones seem to have been readily available, according to Sir John Clerk, although some of the soft sandstone used for dykes has now become completely pulverised.

The river valleys and tributaries are conspicuous as farm boundaries, and in the main the larger streams are so deeply incised that their valleys provide merely slopes for sheep grazing or afforestation. The southern exposure of the more gentle slopes on the left bank of the River Esk, was contributory to their early enclosure, compared with that of the rest of the estate.

With approach to the Upper Lowland Peneplane, both climate and natural vegetation deteriorate. Rainfall rises from about 33 inches annually at Penicuik to over 40 inches, winds become stronger, and by about 800 feet grass becomes coarser, with an increase in heath, sphagnum moss and peat. Nardus grass grows on Mount Lothian Farm on erstwhile arable rigs, while nearby significantly are ruinous limekilns. (See Fig. 93 and Folder 69.)

The original lay-out of the farms of the region was no doubt partly dictated by the obvious suitability of the parallel-
flowing streams as boundaries. Long strips stretch from the Black Burn upwards towards the moors, the most elongated of these being Halls Farm, and these are paralleled by the rectangular farms of the Pentland hill-foot, the long axis running up the slope. (See Folder 75-42). Such alignment naturally gave fair distribution of various types of land as well as giving access to, and more important, because of the rights involved, frontage on the common mosses and pastures, which before the seventeenth century were more extensive. Throughout the district farm steadings are typically found on the brow of deeply incised valleys, or overlooking main roads.

According to accounts written in the 1830's, the general and substantial improvement of the estate did not begin until the end of the eighteenth century, and this is borne out by the 1796 estate plans. James Jackson, in his Account of the Parish of Penicuik says that Sir John Clerk, laird from 1784 to 1795, and grandson of the first intrepid improver, was perhaps the first laird who warmly endeavoured to introduce improvements of every kind among his tenantry, but that the more general and interesting improvements date from the epoch of Sir George Clerk (1798-1867). The New Statistical Account of 1839 for the Parish of Penicuik, affirms that within the previous forty years the Estate of Penicuik had assumed the aspect of an enclosed and well-sheltered country, with new-

1. James Jackson, Account of the Parish of Penicuik, pages 11 and 12.
built farm-houses and steadings, the rents having trebled in that time. The first steps in improving an unpromising terrain must always be the most arduous and unrewarding, especially where tenants are far from co-operative, rents small, and efforts tentative and groping, and it is obvious that these writers did not appreciate the wholehearted efforts made by Sir John Clerk from the very beginning of the eighteenth century.

In 1646 the 'Penycuik' estates were sold to Dame Margaret Scot, Countess of Eglintoune, along with certain other lands which were incorporated in the whole. An interesting reference is made in the Sasine to "the lands of Auchincorth with the commonty of Penycuik." No subsequent reference has been found to this commonty, which presumably was a common moss.

The estate came into the hands of John Clerk, Merchant, burgess of Edinburgh, in 1654, on the forfeiture of a bond. At that time the rent of the lands and barony of Penicuik and lands of Hailles amounted to £360 sterling, the rental of 1654 showing £3,919 Scots pounds or roughly £326 sterling for Penicuik Estate. The rental of 1654, (See Folder 43.) shows that the majority of the farms were regarded as units, and were paying yearly between 100 and 250 pounds Scots in rent. Two farms paid 333 pounds Scots each, and five paid less than 100 pounds Scots. The farms of Toure (Tower) and Luffness

(Luffenhouses) were divided in two, and in each case the two sections were rented equally. This may represent the last stage in the unification of the farms into single tenancies, and doubtless indicates an earlier system of equally shared joint tacks, involving three, four, or more holdings. The eighteenth century acreage for Tower Farm was 122 acres, and that for Luffenhouses 253 acres, yet in 1654 Tower paid 200 Scots pounds of rent, while Luffenhouses, a neighbouring farm, higher in altitude, paid only 104 Scots pounds. Since there seems to be no obvious correspondence in the rentals of 1654 between acreage, as later stated, and rents, one may assume that either farm boundaries changed considerably in the interval, or that the rents were assessed on some arbitrary system. Multiples of 50 or 66 Scots pounds occur frequently, but this may show merely a desire for round fractions of a hundred Scots pounds. Between 1654 and 1684 the rents rose 29% from the equivalent of £326 sterling to £421 sterling, although the proportional change for each farm was far from consistent.

The casualties payable with the rent in 1694 presented a variety of livestock though with hens only in significant numbers. Though small in number the mention of carriages of coal to the mansion and to Edinburgh, also carriages of lime, is of some significance. Three hundred and thirty loads of peat had to be carried, but besides carriages the only services
stipulated were those of shearers.

Mr. John Clerk died in 1674 and was succeeded by the first Baronet of Penicuik, Sir John Clerk who was laird until his death in 1722. It was his eldest son, Baron Sir John Clerk, born in 1676 who was the first improver of the estate, and who fortunately left detailed records of his activities, ideas and opinions.

The second Sir John Clerk was a man of ability and education, well-travelled and cultured, and withal such an excellent and responsible laird that he was impelled to impress upon his successors "That the greatest improvement and the greatest Embellishment which the House and Inclosure of pennicuik can possibly receive, is for myself and posterity to live always here. We ought to be strangers at Edinburgh and Mavisbank and all other places." 1 His public offices as Baron of the Court of Exchequer, one of the commissioners for the Union, and after 1727, a commissioner of the Board of Manufacturers, fitted him to control his estate with justice, propriety and vision. A classicist, he had an eye for romantic beauty, and combined planning sense with a good business head. He grasped the essentials necessary for the improvement of his estate, and struck out for them, though with the odds of poor terrain and obstinate tenantry against him. "Warmness and shelter at pennicuik is chiefly what is wanted" he declared, 2 and in 1703, there is

2. Ibid., p. 15.
the first reference to his improving activities on the estate - namely, the planting of trees. "...about this time fell exceedingly into the humure of planting and makeing of nurseries"¹, and thus began the labour that resulted in a total of more than three hundred thousand trees planted within thirty years.² He justifies the cost of so ambitious an undertaking by remarking that the estate is near "the mercats of Edinburgh and there will always be more timber wanted than can grow in this shire."

Sir John emphasised the importance of hedges, ditches, and drains, and the value of improving the moor grounds of his estate, but surprisingly, says little about the need for improving systems and methods of husbandry, although there are references to his laying together lands which previously had been in runrig.³ Certainly he had the mechanics and benefits of enclosure very much at heart, and would have liked his tenants to enclose twenty acres each year.⁴

The policies of an eighteenth century laird were his glory - and his reflection (See Folder ⁴⁸). In common with most of his contemporaries, Sir John enlarged his policies, embellished them and bestowed on them the first fruits of his knowledge and travelled experience. To increase the privacy of the grounds the old through road gave way to a new road round the edge of the policies, and Sir John added about 150 acres of

1. Memoirs, p. 45.
2. Ibid., p. 136.
3. Ibid., p. 137.
4. 1743 Rental, Carsewell and Cairnhill.
Fig. A.4. Facsimile of a rough sketch made by Sir John Clerk, of a "Gothick Tower".

Fig. A.5. The actual dovecot.
Hurley Hall to his grounds, stating that the possession paid only 200 merks. 120 acres of this possession were to be enclosed by a stone dyke and to be divided into four enclosures. One of these was to be small, about twenty acres, and was to contain two or three ponds "in the English way for Carp and Tench". These were brought from England, from Cumberland, and were treated with great solicitude. To safeguard them was to be a stone-faced dyke with hedge, six feet high, water gratings to keep off otters, and "for the safety of these ponds, the Houses of Hurley, or at least one of them may be kept up." Besides the ponds, artificial falls or cascades were to be constructed on the Hurley Burn, in view of the House, an "old-fashioned" roofless tower was to be constructed on an eminence for a pigeon-house, and a sketch was drawn for a "Gothick Tower" to serve for a pigeon house. The tower which was built is still an attractive landmark, standing on top of the 'Knight's Law.' (See Figs. 4, 5 and 6.)

A park which was made in the neighbouring farm of Coldshoulders was taken over by the laird and an avenue constructed through it, perhaps with the intention of adding the farm to the policies. Of this he states "At the end of the South avenue through Coldshoulders park there ought to be a ruine or Tower or an Arch for a termination - no hewen stone is necessary." This was to be about 40 or 50 feet high and not more than 2½ feet thick. (See Fig. 16.)

2. Ibid., p. 11.
It is well seen that Sir John considered old houses and
towers the honour and pride of a country. One of the
Hurley enclosures was to be improved from a state of moor,
for trees and corn, and at the entrance gate, two houses and
yards were to be built for "securing the Entry to my parks,
and to civilize the prospect from the House of pennicuik." He
suggests that the pillars for these might be of dry stone
or of very coarse lime and stonework "as all things of this
kind ought to be, which are made only for a distant view." Sir
John considered a large deer park expensive and
unnecessary and suggested one of about sixteen acres. One
of the Hurley enclosures was to be very large and was to
be improved by "fleaing or pareing and burning" to provide
good grass for sheep. Thus was formed one of the grass
parks which were later let out very profitably for sheep-
grazing. The plantations of the estate policies were made
as attractive as possible, and Sir John declares "As to the
improvements of the ground I have practised all kinds such
as draining, watering fallowing and sowing all kinds of grain
and grass seeds. Nothing exceeds watering which is easier
in my inclosures than in most places. The best method of
watering is to carry it along the ground in the summer time
thus in winter it does not so much good and
care must be taken not to let the water run with too great

1. Report, 1741, p. 36.
2. Hurley Bank Rental, 1743.
Fig. A.6. Design for a ruin.
rapidity." He states that wheat, oats, rye, pease, beans and bear, barley or hay thrive well when the ground is rightly ploughed. He finds that clover and rye grass thrive well, but summing up, owns that the ground is high and cold. The usefulness of laying coal ashes on ground is discussed, and Sir John concludes that 'it can do great harm, especially if not thoroughly burned, except on clay grounds.'

As was usual, fruits were grown. It is interesting in this connection to note that Robertson the writer of the Agricultural Survey of Midlothian in 1794 states that sixty years previous to 1794, clover and potatoes were little thought about and less known. Although Sir John does not mention potatoes, they were grown in 1750 on the neighbouring estate of Newhall.

As described elsewhere, Sir John Clerk also ornamented the banks of the Esk, and Penicuik village, with trees and gardens, in his desire to beautify and humanise the landscape. (See Folder 49-50).

When he tackled the problems of enclosure, Sir John very commendably took the farm of Cuiken, experimentally into his own hands. Of the enclosures he made there, Jackson in his Account of the Parish of Penicuik (p. 6) declared in 1833 that they could not then be bettered. If the plan of 1796 (See Folder 53.) shows the original enclosures, they do appear to have been well devised, in groups of fields of 5 to 9 acres,

and others of 14 to 17 acres, while one field of 25 acres probably represented the original croft land, and another of 50 acres awaited subdivision. In his Report (1741) Sir John admitted that he was not making a financial success of it, partly because he considered it too large, and partly no doubt because he had too many other pursuits. He had combined the Eastfield of Penicuik with Cuiken to give 300 acres for his farm, and regretted that he had not instead made two separate farms. He stated that he enclosed about 80 acres in all "and made an advance of my rent at the rate of 10 per Cent for what I laid out but I lost by markets when I kept this Room in my own hands and when I let it, I was obliged to take one of our own young bungling disorderly country fellows for a Tenant, James Willson, who was never bred to know any thing about the improvement of ground by inclosures, And thus it happens that the Hedges there are neglected and will go to ruine unless the Genius of the Tenant, improve. By calling so much ground into one man's hand, I thought he might live better and pay his rent better, but I now find by experience from several observations I have made in the Duke of Queensberry's lands, as well as my own, that small Tenants near a Royal Burgh Town or near Coal, pay their rents best. I observed this likeways at Moffat, in my own lands of Drumcrief which I have now given to my son George. When these were in the hands of
5 or 6 little Tenants, there was more rent paid and much better than when they were brought into one or two Farms. Small Tenants have other methods to live by than their lands, for these they make only a help to them. However, there is a vast distinction to be made in countries which abound in Wood, or are near sea ports where foreign timber may be easily got, and countries where there is a scarcity of these conveniences for when Timber abounds Houses can be made and kept up at a small expense, whereas a multitude of Houses is never to be thought of where Timber is expensive in itself or difficult in its carriage."

Certainly Sir John received higher rents from small tenants in Loanhead, coal-mining and strawberry-growing district, but it is doubtful whether, apart from the financial standpoint, small part-time tenancies were generally successful. Robertson in his Agricultural Survey of Midlothian affirms that such holdings serve "to distract the attention of the occupier from his proper profession, and to expose the wretchedness of his exertions in husbandry."

Apropos Sir John's interesting comment on the relationship between availability of timber and construction of houses, he himself considered that for building and upholding houses either in town or country "Ten per cent is what ought to be paid before the building of a House can be called an Improvement to Ground."  

1. Report, 1741, p. 3.  
2. Ibid., p. 30.
Sir John discovered that in spite of long tacks, sometimes of fifty-seven years, his tenants made little effort to improve and would allow enclosures to go into a ruinous condition, he came to the conclusion that a hundred acres was "a sufficient farm in any man's hands." He pinned the following note on the front of the 1743 Rental: "It consists with the experience I have had now after 42 years that the best way of improving Arable Land is to have it in many hands. I have thought otherways and tried experiments by throwing 2 or 3 little Farms into one, but found this absolutely wrong. Many hands keep the ground in good order by collecting of dung and ploughing in the best way, whereas one hand neglects all the work, witness the management of Cooking when now joined with the Eastfield of Penicuik. But this rule will not answer in wild Sheep Rooms and ground not arable. One hand in this case will be sufficient for a Room of 50 or 100 lib. ster." Signed John Clerk.

Although great stretches of bog, moor and moss offer unpromising material for arable land, Sir John Clerk suggested reducing the size of moorland farms, for greater efficiency and higher rent. This was analogous to the creation of farms from former outfields of Penicuik Town Lands. Prior to 1731 the farm of Coldshoulders had been formed or added to by land previously belonging to Ravensneuk Farm (See Folder 67) and it is possible that Dykeneuk Farm of 1796 once had strip-formation and connection with Black Burn (See Folder 65). It
is interesting to note that in 1741 there was still some indications of farm rundale, in that Carsewell Farm possessed 250 acres on the north side of the Esk, and 200 acres of moor ground at the head of Dykenook. (See Folder 58-65). According to the 1731 Rental this land was at the west end of the dyke nook rig, and was badly cared for. — "it ought to be a room by itself and houses built upon it." This never took place. In the 1743 Rental there is a note to the effect that Halls Farm was much neglected, due to its size (said to be at least 400 acres), its tenant, and the low rental of 2/6d. per acre (See Folder 66). A tripartite division is suggested for this long strip farm which is said to contain potentially good soil, but the division was not effected. Sir John would have liked to see the moors drained and tilled for rape-seed. Twenty acres of this farm were reclaimed recently, within two years at a cost of £2,000. The third division suggested for Halls in 1741 was to have been on the moor, apparently with no share of the croft lands of the farm. A similar suggestion was made for 200 acres of Brunstane Moor, but no division of that farm was made. (See Folder 61).

A threefold division of Mountlothian Farm was accomplished by Sir John Clerk. (See Folder 67.). When he purchased it there were two tenants, paying unequal rents of 333 and 400 Scots pounds, although Sir John could not account for that. After

2. The Midlothian Esk. 1950 Honours Class Field Study, p. 11.
1744, the farm was let to three tenants who each paid 288 pounds Scots (plus casualties) and Sir John proudly quotes the following figures:

"1748. I bought the lands of Montlothian and Herbershaw at the rent of 1385 merks.. and in lbs Scots 916 Now let for the following rent Libs Scots

Montlothian to 3 tenants who pay each 288

Total 866

Herbershaw pays 216

1082

Lyme Quarry pays 66

1149

Hence advanced rent in pounds Scots 233."

Mountlothian was a farm which had been greatly improved by application of lime, and obviously could stand being divided in three parts. However, in 1797, Alexander Low in his Report refers to the tenant of Mont Lothian Farm, so that the division did not last more than fifty years at most.

In an irregular terrain, there is much to be said for enclosures which conform in a regularised fashion to the configuration of the land. Within the Penicuik Policies, the plan of 1796 shows an unusual and rather attractive pattern of irregular tree-girt enclosures, although, impinging on Tower
Fig. A.7 Sir John Clerk's plan for partial enclosure of Braidwood Farm. Facsimile of his sketch.
Farm there is superimposed, what appears to be the framework for larger geometrical enclosures. (See Folder). Straight lines of single trees indicate a most unsuitable enclosure, cut by two incised valleys and a minor stream.

With regard to the enclosure of farms, Sir John realised the value to himself and his tenant of even a small percentage of good land enclosed, especially when it was well situated. His plan for Braidwood Farm well illustrates this point. The farm contained 298 acres, but Sir John proposed to concentrate on a "Square of excellent ground of about 40 Acres which by reason of its situation and Springs might be improved by 4 or 6 inclosures to more than the whole Room pays at present... These inclosures would produce a great quantity of Hay and being on the High road cou'd not fail of being let for various usses." He mentioned the presence nearby of marl and limestone, and drew a rough diagram (See Fig. 47).

The 1796 plan shows that this project was unfulfilled, and that the land was still unimproved and unenclosed. (See Folder 59.). Sir John generally recommended small enclosures of from eight to ten acres, divided by parallel lines of ditch and hedge, and in the case of Cornbank, he stipulated that no division be above eight acres because the ground was high and cold. Where sheep or cattle pasture was envisaged, larger parks were made, as in the case of Coldshoulders, where a park of twenty acres, enclosed by a stone dyke, was taken over
by Sir John, possibly with the intention of letting it out for grazing (See Folder 64). The Glaskill Parks however, which were let out to Penicuik townsfolk, for grazing, were in some cases as small as three acres. (See Folder 52). For purposes of draining wet ground, Sir John advocated the division of the Croft of Cuiken (about twenty-five acres) into four, by cross dikes and ditches. (See Folder 53).

Very little explicit information is given about the construction of dykes and hedges, but James Jackson in his Account of the Parish of Penicuik (page 6) states that Sir John Clerk constructed double turf dikes with thorns on top, and oaks at fifteen yard intervals. In the case of Loanstone Farm, guidance was given to the tenant. He was to construct parallel lines of ditch and hedge to form enclosures of about eight acres "and amongst the Thorns at 12 or 15 feet distance on the Top or sides of each ditch an oak or an Elm ought to be planted in order to shelter the ground, but chiefly an oak." Thorns and trees were furnished from the nursery at Penicuik. Seven or eight men were employed constantly, to drain, ditch or hedge, especially in the spring season at Penicuik. Stone dykes were also constructed, and there are constant references to the easy availability of stones. Hard freestone which was quarried, was considered suitable for dykes, though not for hewn work. As usual, farms nearest to the policies were given

priority over the more distant ones, for enclosure. The expenses of enclosure were usually defrayed by Sir John and the tenant paid 6½% or 6½% on every hundred pounds Scots of improvement laid out.

Sir John was greatly interested in the potentialities of his moorlands, and was constantly advising what he called "pareing, flaing, and burning" as well as draining of the bogs and mosses. He thought the excellent peats formed on Mountlothian flow moss a great asset. On Carsewell Farm where lime was available, he suggested digging out about sixty yards of flow moss and mixing it with lime to make "what we call Earth-middings. Nothing would be better manure for the Croft ground." Other areas that might be similarly treated were mentioned, and in another instance, Sir John referred to "white sandy marl" lying under a stretch of moss, which was fit to enrich the soil. A remedy for dry, presumably sandy, soil is suggested in the 1741 Report on the farm of Luffenhouses "dry ground can never be better improved than by leading a Current of Water along it in a spiral or zig zag way." (p. 8).

Sir John recognised the value of lime, and wherever limestone was conveniently at hand, he suggested the conversion of moor to grassland. (See Fig. A2, p. 4). As early as 1707 there is a reference to a tenant being given a reasonable allowance for liming his ground, but possibly lime was used in the district

1. In effect the removing of turf, and burning of it to provide fertiliser.
3. Ibid., p. 29.
long before that. Sir John admitted that he purchased Mountlothian Farm with a view to improving the rent by means of the limestone quarries, whose importance may be seen on the tracing sheet showing the estate, by the convergence of roads leading to the quarries. (See Folder, 42 and 69.). "The tenants in this room and in all Montlothian grow rich. The tenants in this Room, 6 or 7 years ago gained a great deal of monie only by lyming and tyling (word illegible - tilling?) out the ground". (1743 Rental). Where Sir John remembered seeing the lands of Mountlothian covered with heather, he describes "a very rich grass being a small white clover very agreeable to cattle of all kinds and particularly to sheep." The tenants of this farm which stands between 850 and 900 feet are to-day said to be progressive and prosperous, in spite of derelict lime quarries. A hundred merks was charged each year for the use of the limestone quarry, previous to 1743, when the rent was given as 66. 13. 4 Scots. A similar charge was made for the lime quarry at Brughlee in Loanhead, but according to the 1743 rental, the tenant of Auchporth might work the limestone in consideration of six hens and a stone of cheese. In the 1750's or 1760's a new tenant of Brughlee had to pay £15 sterling for the limestone quarry, and if he burned any more than fifteen kilns for sale, he was to pay one pound sterling for each extra kiln.

Sir John complained that the tenant of Mountlothian let

Fig. A8. Site of limeworks at Mountlothian.
off his limestone craig to everybody who paid him, although they abused the ground by taking the limestone at random from the surface. Surprisingly, the rent was not paid by the tenant in actual possession of the quarry but by two neighbouring farmers who thereby obtained limestone for their own use, and not for sale. The previous tenant on one of the farms – Herbertshaw – had been given an allowance yearly for the lime he used, but the new tenant after 1743 was obliged to pay extra for the use of limestone.

For his time, Sir John had an unusual grasp of the principles of forestry, and some of his ideas are considered modern to-day. He appreciated the value of hardwoods such as oak, beech, ash or elm, for sale, considered oaks and beeches good for the altitude of the estate, and introduced pine and fir trees. He found that they make good nurses for young trees, and declared that their timber value was generally underestimated. He found the wood useful for pit props. He planted steep braes and otherwise useless moors with firs, sowing two or three seeds in holes of eighteen inches diameter, the holes an ell (or 37 inches) apart. This distance he knew to be too short but said that it enforced tall and relatively branchless growth and the trees could be thinned when necessary. The cheapest way of fencing, he declared, was to employ a careful shepherd and his dog to protect the trees for nine or ten years until they were about twelve feet high. He also encouraged 1. See Fig 8.
the growth of willows and alders on mossy parts to serve tenants' houses for timber. Apparently it was unusual for tenants to be permitted to cut wood, because there is a reference to the tenant of Loanstone having a special privilege to cut the wood. (1743 Rental). Sir John stated that some of the steep slopes which he planted, had previously been wooded.

Sir John Clerk seems to have known the approximate acreages only of his farms, but he was convinced that they were not rented at half what they were worth (1743 Rental). According to the 1741 manuscript he intended to have the Penicuik Town lands measured before re-letting them, because he thought them worth twenty shillings sterling per acre. It was his general practice when he had the enclosure of a farm in view, to refuse to grant a new tack to the tenant, grant one from year to year, or insert a clause in the lease obliging the tenant to surrender the land when required. He would then advertise a public roup duly intimate it at the doors of several churches in Lothian and Tweeddale, in order to give a skilful man the chance to rent the farm, but always with good security for the rent. (1743 Rental, 1741 Report, p. 33). Some leases carried the stipulation that the tack should be forfeited if three terms rent be owing. The tenant of Braidwood Farm did forfeit his farm c. 1743 for this reason, and Sir John forbore to raise the rent by the hundred pounds Scots he felt was justified:

"on account that the rent due was paid, because of the
"distress of Hodges' poor wife and family, on account of getting sufficient tenants as the Tweedies now are." (1743 Rental).

Where a tenant was poor and willing, Sir John might accept carriages in lieu of money rent, and where very poor the tenant might have his house and yard for nothing. Subtenancy was common on the estate, and Sir John mentions that the small possession of Howgate was made a pendicle of Halls Farm by his father in order to have the rent better paid.

When a new lease was granted, the tenant sometimes paid less for the first few years. James Ramage of Walstone paid 466 Scots pounds for the first six years of his tack and 533 Scots pounds for the remainder of it. A note about this in the 1759 Rental no doubt gives a clue to the occurrence of figures ending in 66 and 33 in earlier rentals. — "The above tack paid only 700 merks during the first six years and during the last nine it pays 800." (1750-65). Thus it would appear that the merk was still the basic unit for calculation in the 1750's.

The lease stipulations in some cases, are of interest. They might be framed with the aim of conserving the land, as in the case of a tack for Fallhills Farm (1731) (See Folder 7) — "By tack no turfs or peats are to be win (word illegible) on the ground by the Tacksman his subtenants or cotters except for their own fires and not for sale as was usual because moss
in a good measure exhausted." Old customs might be perpetuated in the tacks, such as the summering of a cow and its follower by the tenant of Carsewell for the use of the gardener at Penicuik. The same tenant was enjoined to sow one boll of oats on his field land and one firlot of bear on his bear land and to carry the product of all this to Penicuik for the use of the grieve. (1731 Rental).

The tenant of Lawhead was obliged to herd thirty sheep on his ground for the use of the tenant of Marchwell, this custom perhaps denoting a previously shared common pasture now included in Lawhead. (See Folder 56). Stipulations might be framed to further the laird's schemes for improvement. Tenants were enjoined to keep up any enclosures on their farms, and encouraged to go on with improvements. In some cases the laird is empowered to take a stipulated number of acres from a farm for or after enclosure. The farm of Auchencorth with its great extent of moss was a problem to Sir John, and he variously suggested enclosing a mile square of moorground for a nursery for moorfowl, and increasing the rent by keeping goats and erecting goat milk huts, besides rearing sheep. (See Folder 62). He points out that there is good freestone at hand for dykes. It is unfortunate that those projects do not appear to have been attempted. Sir John encouraged the grazing of goats on the adjacent Brunstane Farm by making an allowance of eighteen pounds Scots so long as the tenant shall graze twenty goats and no longer.
From the tacks it appears that thirlage was common in Sir John's time, and that tenants were subject to the laws of Baron Court of Penicuik. Monopolies were granted for the selling of ale, and to the blacksmith of Penicuik. The human contact between the laird and his tenants is apparent in one note in the 1759 Rental that William Irvine may pay five shillings feu duty for Rosehill "as long as he behaves himself as becomes a good gamekeeper."

The casualties payable with rent, speaking comparatively of the times, were not onerous, and remarkably little was actually paid in kind. This was not predominantly an arable district, and little meal was contributed to the laird, hens being the only universal livestock tribute. As early as 1731, conversion rates were given for hens, capons, and carriages. A hen was the equivalent of 7d sterling on Lawhead Farm at that date, and a carriage similarly was 7d. On Harley a capon was 10d. Sometimes conversion rates were given in Scots money, a hen then being equivalent to 6/8d. Scots. The gardener's contribution of a stone of butter (1743 Rental) may have been used for smearing sheep. It is impossible to tell from the 1743 Rental how much coal was being carried, but with Sir John's progressive mining operations, it no doubt was progressively taking the place of peat. In the 1759 Rental, the tenant of Roads, was obliged to carry 24 loads of coal within the parish or 12 outwith, but might pay a sum of money (illegible - perhaps 6 merks) for the twelve loads. (On page 24 of
his Report of 1741 Sir John speaks of coal on other lands than the Concrail which he is discussing as yielding £50 sterling annually. In this connection it may be noted that in 1743 Sir John Clerk, in framing a lease for Brunstane Farm made no allowance for coal roads, houses or yards, thus freeing himself from a great number of claims that used to affect him). From a reference in the 1759 Rental for John Lawry of the Wellhead of Penicuik, a carriage comprised a day's work of one horse and one man. It may be remarked that where a farm unit was not of long standing, and there were no traditional casualties, Sir John did not impose any. The tenant of Coldshoulders paid no casualties in 1722 when the farm was let for nineteen years.

Within Sir John's epoch there were a few cases of tenants sharing the lease of a farm - for part of the time, two tacks-men in Auchencorth and three in Roads (See Folder(2-72)) - but also there was development of led farms, where the tenants possessed more than one farm simultaneously. Thus, because Sir John considered him a good tenant, we find Robert Mitchell in possession of the 1489 acres of Auchencorth and adjacent Brunston, though no doubt with a sub-tenant. Alexander Laury possessed the nearby farms of Coldshoulders and Carsewell, while James and David Wilson, besides sharing Cooking and Eastfield farms, possessed James-Herbertshaw, and David - Halls, farms at some distance from Cooking and Eastfield.

The usual length of lease granted by Sir John Clerk was
nineteen years, although a number of leases granted at the 
beginning of the century were for between fifty and sixty 
years. As previously stated, Sir John discovered that these 
long tacks were no more conducive to land improvement than 
shorter leases of nineteen years.

The rent of the estate rose from 3,465 Scots pounds in 
1694 to 4,421 Scots pounds in 1743 for farms, outwith the 
lands of Penicuik Town, and in the hands of the laird at 
both dates. This represents an increase of about 28%, but 
was not a uniform increase, and did not have any immediate 
correspondence with acreage. The total increase was equivalent 
to £80 sterling, and of that Brunston Farm (See Folder 6.), 
contributed £22 sterling while the rent of eight of the 
farms rose by less than £8 sterling.

Thus may be seen the small returns of the early labours 
of improvement, when the laird is faced with the expensive 
and arduous improvement of marginal land, supported by only 
marginal rents. In spite of constant efforts to introduce 
the industrial small tenant, who might augment his livelihood, 
and the rent, by the proceeds of weaving, paper-making, coal-
mining, or inn-keeping, Sir John did not grow wealthy. He 
died in 1755, leaving an injunction to his family that they 
should always live soberly "as to foreign necessaries and 
materials for luxury", manage family expenses with care, use 
ready cash only for improvements, and encourage no idle company.

Notwithstanding the comparatively meagre results of Sir 

1. Report, 1741, p. 43.
John Clerk's labours, he must rank, if partly in intention, with other outstanding improvers of the early eighteenth century. His knowledge of the principles and benefits of afforestation, enclosure, drainage, fallowing and sowing of grass-seeds was good, if not generally applied, and the attention that he gave to neglected 'outfield' lands commendable. It may be that though he grasped the essentials well, his public life did not afford him the time to absorb thoroughly the significance of the new husbandry. At all events, he did not have the capital or the staff necessary to effect large scale survey, organisation, and enclosure, nor did he have ground fertile enough to attract wealthy tenants. Although his enlightened approach to the problem of casualties might have appealed to prospective tenants, it may be that he could not afford to be so liberal with grants of lime as some of the more wealthy landlords. Albeit, with his three hundred thousand trees, he gave Penicuik the warmth and shelter he knew the estate needed, laid the foundation for improvements and left a legacy of intelligent and sensible advice.

Sir James Clerk - Laird from 1755-1782.

Prior to his father's death, Sir James had spent long periods abroad, and when he came to rebuild Penicuik House, Italian and French influences were apparent. Little information is available about his influence on the estate, but according to Jackson (Account of the Parish of Penicuik, pp.
9 & 10) and the Annals of Penicuik (p. 10), he planned and laid out a portion of the village of Penicuik, about 1770. He built a stone wall round the policies, and opened two new lines of road through the estate, taking them over hill and dale, regardless of declivity. The writer of the Old Statistical Account for Penicuik described the turnpikes as full of pulls – a typical allegation of the time, and suggested that attempting improvements was merely a waste of money when the roads were poor, (Vol. 10, p. 431).

Sir George Clerk – Laird from 1782-1784.

Nothing of significance known. During the period from 1755 to 1782 two rentals are available. The first, a book which covers years from 1751-69, shows very little change from the rental of 1743, the rent remaining static in a number of cases. Entries gradually appear in sterling money only, while the optional conversion of casualties becomes more general. An incomplete rental for 1782-84 exists in a rough form in Register House, and it may be that some of the entries represent more than a year’s rent. It is difficult to account otherwise for some spectacular increases, such as the rise from £15 sterling in 1759 to £100 sterling in 1782 for the twenty-eight acres of Marchwell. A perceptible increase is however shown between the two rentals. An abstract for 1769 shows the total rent of Penicuik Barony as £1530. 7. 3. which is about three times that
claimed by Sir John Clerk in 1741, but he may have excluded the conversion of casualties from his reckoning.

Sir John Clerk - Laird from 1784-1798. (Son of Sir George Clerk).

Sir John Clerk was the laird, who, according to Jackson, first warmly endeavoured to introduce improvements of every kind among his tenantry. It was he who engaged John Ainslie to survey the estate, and Alexander Low to report on it. Jackson states (p. 22) that when Sir John introduced the first competition ploughing match about 1790, most of the ploughs were of the old wooden Scots type. One or two of Small's make proved as great a novelty as the ploughing match itself.

John Ainslie's Plans - 1796. (See also pages 1 - 4).

The book of twenty-nine plans of Penicuik Estate is well bound and preserved, and a credit to John Ainslie of Edinburgh. The plans are beautifully executed, shaded lightly in black to indicate topography, and coloured to differentiate land-use. Realistic symbols, possible on such a scale, give a touch of reality, and there are detailed tables of contents. Most of the plans are on the scale of 1 inch to 4 Scots chains, but a few are drawn to the scale of 1 inch to 2, 5, 6 or 8 chains, while the key map is on the scale of 1 inch to 15 Scots chains.

The percentage of land enclosed on individual plans may be shown as follows:

1. Account of the Parish of Penicuik, J. Jackson, 1833, p. 11.
<table>
<thead>
<tr>
<th>Number of Plans</th>
<th>showing</th>
<th>Percentage Enclosed</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
<td>0%</td>
<td>Moorland farms of Upper Lowland Peneplane and Pentland foot farms.</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>5%</td>
<td>Pentland foot farms.</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>15%</td>
<td>Coldshoilders - moorland near policies.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>50%</td>
<td>Roads and Cornbank.</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>60%</td>
<td>Eastfield.</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>90%</td>
<td>Cuiken.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>100%</td>
<td>Penicuik policies and Tower Farm. Lands of Penicuik and its mills. (See Folder 75 for key to photostat numbers).</td>
</tr>
</tbody>
</table>

The graphic representation of trees and hedges illustrates well the contrast between the lower enclosed lands and the bare upper farms, treeless even round the steadings. The estate policies and adjacent Tower Farm which were well wooded and 'naturally' enclosed, may easily be differentiated from the more formal enclosure pattern of the farms. Cornbank Farm presents an unharmonious arrangement of enclosures, and it is interesting to note that Alexander Low states that the farm is under bad management. (See Folder 54). The farm of Roads has an uncompleted pattern that looks rather unhappily adjusted to the ground, and does not appear on the modern 2½ inch map. (See Folder 72.).

The extraordinary cultivation patchwork on the higher lands, set amongst differentiated bog, moor, and moss, substantiates Alexander Low's remark in his Report about the detached state of dry improvable land, much cut up and intermixed with meadow,
bog, moor, and moss. Arable land is of all shapes and sizes from occasional tiny intakes of one or two acres on the edge of moor to considerable stretches comprising croft land near steadings, or fields along roadsides, and surprisingly, at the upper limits of cultivation. Large stretches of twenty, forty, or sixty acres of arable land reach up to 1100 or even 1200 feet along the slopes of the Pentland Hills, and a considerable percentage is found on the moorland farms, at or near Mountlothian. The term "field" or "outfield" is not found in common use, no doubt because regular outfields did not exist. The amount of cultivable land at some distance from the steading was limited by soil conditions, and suitable patches would be kept under fairly constant cultivation. That some of the "faulds", "lees", or "shots" won from moss or moor were won with difficulty and small reward, is indicated by such names as "Hodges Folly", "Gambler's Faulds" and "Lazy Know".

Interesting features shown on the plans include coal mines, gold mines, limestone and other quarries, gravel pits, mills, a lint pond and the remains of old dykes, no doubt constructed by Baron Sir John Clerk. Turnpikes are shown and a network of minor roads now vanished, that led to mosses or limestone quarries. (See opposite page).
Alexander Low was no doubt an experienced adviser with no personal interest in the estate, but if he did not therefore pursue the short-sighted policy of trying to wrest a little more rent out of each unproductive acre, he none the less worked with equal single-mindedness. The estate lay high, cold, and wet, but with much intermixture of dry sands and gravels, which were ideal for turnips. Mr. Low argued that the financial return for winter feeding sheep near Edinburgh would be great, and since the farmers of East Lothian and Berwickshire did this with advantage, why not those of Penicuik? In other words he wished to see the estate, with a few exceptions, regarded as stock land, where animals should be reared, fed and stored by means of the turnip husbandry. All farming operations were to be subordinated to rearing good stock - apparently he meant sheep principally - and for that purpose, emphasis was to be laid on improvement of pasture, and the growing of turnips and artificial grasses. It was admitted that the constant variation of soil made it difficult to use a general system of management, but Mr. Low meant to try.

The estate was certainly not uniformly improved in 1796, and from his viewpoint Mr. Low proclaimed the state of agricultural economy, with three or four exceptions, to be considerably behind many other estates, under similar local advantages. At the other
extreme from Baron Sir John Clerk, he deplored the small size of the farms and wished to enlarge them, though he thought that might be difficult in this case "where tenants feel for one another" and in general "keep free of interference with one another." They thereby prevented competition when farms were let, and retarded the improvement of the estate. The landlord was advised to look out for good stock farmers who would introduce better breeds of sheep and molt. Mr. Low deplored the fact that even the sheep of the Pentland Hills were of greater value than those of the estate. He insisted that the prevailing system of folding and liming the dry land fields for cropping for three or four years successively was unprofitable to the tenant and ruinous to the estate, but was convinced that if he succeeded in improving the breeds of stock, he would thereby encourage the tenants to fallow and lime their dry lands for turnips and grasses to support the stock.

Mr. Low listed eight possible objections to turnip husbandry on this estate and supplied the eight answers. They are given below in summarised form.

**Objections to Turnip Husbandry, and Answers.**

1. Smallness of the dry fields.

**Answer:** A little more expensive to work small turnip or grain fields. Variety of soil would give variety to the quality and taste of the turnips.
2. Irregular shape of the fields.

**Answer:** Unprofitable to have soils of different qualities in regular fields, but if bog, pasture or meadow enclosed with the dry land were watered or top-dressed to carry hay the objection would be so far removed. Movable flakes recommended as enclosures. Suggested that the landlord might furnish flakes by way of premium, to the tenants who proposed to eat off the greatest quantity of turnips with sheep.

3. Detached state of the dry fields which would render the herding, were two or three of them in turnip at the same time, extremely difficult.

**Answer:** In summer, herding would be no more difficult than when the fields were in corn. In winter no doubt greater attention required, but this becomes easy by habit, and improved breeds are always the least restless.

4. Smallness of the farms which do not keep stock enough in summer to eat the turnips raised on the farm in winter.

**Answer:** Turnips could readily be sold to greater farmers or to dealers to be eaten off the ground at the season when the grower shall require it.

5. There is a chance that tenants, possessing farms of this description might not be sufficiently acquainted with marketing stock, and therefore might often between
markets, lose the price of their turnips.

**Answer:** Farmers unacquainted with marketing stock should not deal in it for the sake of eating off their own small crop of three, four or a few more acres, otherwise the objection might be justified; but if the turnips are let, the objection is removed.

6. Difficulty of procuring dung in sufficient quantity for raising turnips to such an extent as to be the tenant's chief dependence for payment of his rent.

**Answer:** Except for the north-east part of the estate the whole is rather out of reach of Edinburgh dung at moderate expense, but steady turnip husbandry increases the quantity of dung, especially when two or three years of pasture between crops of turnips, time and a little dung needed for quickener at first. This treatment recommended for all the farms lying along the Edinburgh road.

7. The loss that the breeding stock on the farm would sustain by being kept off the dry field lands in winter, and not being allowed their accustomed range over the low lands of the farm.

**Answer:** With climate as it is, it might be better not to keep breeding stock on the farm, though flakes round the turnip fields would help if breeding stock were wanted. Otherwise lambs might be bought in July. All this would
apply to the Pentland foot farms.

8. Severity of the winter frosts may blast the turnips leaving the fat stock on hand without food, at a season when it cannot be marketed to any advantage.

Answer: Dealers run the risk of frost and seldom suffer, nor is the danger greater than the possibility of wet and late harvests for grain. It is not necessary that the turnips be eaten at the tenant's risk, nor yet with a feeding stock.

Thus was Mr. Low prepared to overcome the difficulties of terrain, climate, and inexperienced farmers of small farms. There follows a report on each farm of the estate with some suggestions for altering the boundaries. A farm with good potentialities for stock rearing should be made as attractive as possible to a good prospective tenant. Thus Eastfield was to acquire 63 acres of Penicuik Mill lands, and Cornbank being 'wet' land was to be augmented by 'turnip' land from Tower Farm, since enlarging it might make it an object for an enterprising tenant. Luffenhouses Farm was to be added to Coats, to make a farm of 458 acres with good turnip land (See Folder 57). Walstone which was potentially a good farm, but suffered from having mossy low ground so that in storms or very wet weathers the stock had to be sent to the higher grounds for shelter, was to be enlarged by adding the west end of Brunston Farm, to give more pasture and shelter from the banks on the north side of
Water of Esk. (See Folder 60-64). Carsewell Ridge and Dykenook was to be improved as a store farm, by the addition of the long moor strip of Halls farm. (See Folder 65-66). Mr. Low encouraged also the feuing of small strips of moss near the Edinburgh road. He noted that one tenant was gaining on the moss, and thought that others might do the same thing. By recommending that the park of Tower Farm, within the policy, and parks of Cornton, the Home Farm should be let yearly by roup for pasture, Mr. Low was furthering one of Baron Sir John Clerk's projects.

It is of interest to compare Mr. Low's attitude to enclosure with that of Baron Sir John Clerk. Mr. Low deemed the lands of the estate too high and thin for any general and regular plan of enclosure, but in common with Sir John, he thought that two or three enclosures on each farm would be of great advantage to any improved mode of culture. There is something reminiscent of Sir John about this comment of Mr. Low, relative to Herbertshaw Farm. (See Folder 70 ). "There is no great doubt but that 30 Acres well inclosed and laid to Grass in good Order, would let for the present Rent of the whole." Mr. Low, moreover, saw the possibility of laying out many considerable fields of even soil, a little below and above the Edinburgh Road, in the same manner as Sir John.

Mr. Low saw that thorn hedges were not universally successful on the estate, and although he thought that the services of an experienced hedger would help, he suggested that stone fences would be expensive but profitable. Another shift would be fail
dykes with whin hedges.

For shelter, Mr. Low advised strips of planting and clumps of trees, and on moors where no trees would grow, he suggested that whins and brooms should be planted on top of low-formed banks without ditches, which should be given a winter’s frost before sowing. To facilitate drainage of the mosses he suggested making "kettle-bottomed" drains — such as sheep would not lose themselves in, or simply making plough furrows.

At Mountlothian Mr. Low thought that moss might be used to burn the limestone, and that the tenant should be encouraged to lime fields in fallow, where they were to remain in grass until the end of the lease, after carrying one crop only. Mr. Low did not stress the use of lime throughout the estate.

Mr. Low wished to see irregular marches straightened, both for convenience and profit of tenants, and the better appearance of the estate. He thought that the length of new leases should be calculated so that the considerable divisions of adjoining farms should come out of lease at the one time. "Then, and then only, can the Farms be all properly lined out to answer the Views of the entering Tenants, or be adapted in size and shape to the most approved Mode of Occupation of such land at the time."

Mr. Low was rather unwilling that a long lease, presumably of nineteen years, should be granted unless the financial terms of the lease were entirely satisfactory.

Mr. Low concluded his report with detailed advice about the
management of both clay lands and the lighter sandy, gravelly, and dry lands. The main points may be summarised as follows:

1. "Clayey Lands such as Cooken, Cornbank, Roads, Pomathorn, and Ravensnook, etc.

   After first years of the lease.

   (a) Half of all the **improved land** always to be in pasture with sufficiency of clover and ryegrass seeds.

   (b) Half may be kept in tillage; to be kept in four Breaks or Divisions, one of which must be yearly fallowed and manured with lime or dung. The other three divisions may be cropped with oats, and barley, or oats, pease and barley, but oats is not to succeed oats. The breaks or fields may be shifted from grass to tillage, but all land laid to grass must be sown down with the first crop after fallow, and no land to be hay'd more than once after being sown off.

   (c) Outfield or **Unimproved Land**. No part to be ploughed except for purpose of improvement, when two crops of oats may be taken after foldings and liming on the sward. Then land to be fallowed and dugged, and sown down with grass seeds with the first crop after such fallowing, and then to fall in with general management of the improved lands.

   No meadow land to be ploughed during the lease, and all the hay and straw growing yearly should be consumed by the tenant's cattle for manure and no power given to sell, gift or burn any.
2. **Light, sandy, gravelly and dry lands.**

(a) The Infield and Croft lands to be put into four equal divisions. One division to be yearly under a **green crop** such as broad, clover, pease, beans or potatoes. Another division to be under fallow or turnips, and the remaining two divisions may be cropped with oats and barley, in the following rotation.  
1) Clover or green crop.  
2) Oats or barley.  
3) Fallow or turnips with dung.  
4) Oats or barley with grass seeds.

The tenant may lay the whole infield to grass to be rested in pasture, and may break up as much of the outfield, which must be manured and cropped in the same way. During the time the infield is in grass, and when this second division is laid in grass, in good order, sown off with the first crop after fallow, the tenant may return to the cropping of the infield, or go to another division of the outfield - always observing that the outfield land taken up and converted into infield shall be as contiguous as may be. With regard to the dry or ploughable outfield lands which may not be brought into the above mode of management, prescribed for the infield lands, no part of the same shall be ploughed during the lease, except for the express purpose of having it improved. No part of it is to be broken up without previous liming and folding. Thereafter it shall not carry above two crops - The third year it must lie in summer fallow, or turnips with dung or lime, and thereafter be sown off with grass seeds, and
rested in pasture for five years, or at least till the whole of the outfield is gone over in this way of culture and cropping. And at any rate there shall never be above a third part of the outfield lands in tillage at the same time. In the second or subsequent rounds of cropping the said outfield it shall not be above three years in tillage between restings, and cropped

1) Oats.
2) Fallow or turnips with lime or dung.
3) Oats or barley with grass seeds.

No hay or straw to be sold.

The above regulations provide for the gradual disappearance of infield and outfield land, and if followed, should certainly have prevented misuse of the land.

It is unfortunate that the extent to which this report was adopted and acted upon, is not directly known, but a rent book for the years 1812-1818, does give some information, indicative of its influence. It reveals that the farms of Coats and Luffenhouses were in fact united, that the rent of Eastfield rose considerably commensurate with the addition of the stipulated sixty-three acres of land, and that after 1813 Tower Farm was incorporated with Cornbank. Moreover grass parks, for the most part within or near the policy grounds, were producing a yearly rent of about £230. The total rent, including feu duties for Penicuik Estate was £3,830. 14. 1 in 1812 - more than twice the total for 1769.
Sir George Clerk - Laird from 1798 - 1867.

Sir George Clerk succeeded to the title and estates when eleven years old, so that the estate was for ten years in the hands of curators. Both they and Sir George pursued a most enlightened improvement policy. Sir George seems to have been an able and kindly laird, who had sufficient capital to effect the transformation of the estate. He built new farm steadings of stone and slate with adequate and efficient offices, the tenants merely having to drive the carriages. New fields were enclosed and substantial stone dykes and iron gates, or, in the more sheltered parts with hedges, now planted with one beech to two thorns. A capable forester planted and efficiently supervised a thousand acres of plantations and shelter belts, and this helped to repair the losses due to wood sales noted in the war-time rental of 1812-1816.

Liberal grants of lime were given to tenants, and gradually stretches of moss were brought under the plough. To encourage drainage, Sir George paid the expense of opening drains, while the tenants filled and covered them. (Tiles had not yet been introduced). ¹

At the end of a lease, Sir George took neither Mr. Low's advice nor that of his ancestors, because he did not advertise them, and preferred, if the tenant had improved the farm, that his lease should be renewed at a rent fixed by an impartial judge.

¹ This account taken from Jackson's article and New Statistical Account).
The writer of the New Statistical Account declared that the Penicuik Estate tenants were enterprising, improving, and attached to their landlord.

During the years from 1812 to 1818, the rent for a farm which was not altered in acreage, nor granted abatements for one reason or another, typically remained almost unchanged. This may be seen from the rent totals for the years -

<table>
<thead>
<tr>
<th>Year</th>
<th>Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1812</td>
<td>£3,569</td>
</tr>
<tr>
<td>1813</td>
<td>4,016</td>
</tr>
<tr>
<td>1814</td>
<td>4,247</td>
</tr>
<tr>
<td>1815</td>
<td>4,273</td>
</tr>
<tr>
<td>1816</td>
<td>4,277</td>
</tr>
<tr>
<td>1817</td>
<td>3,715</td>
</tr>
<tr>
<td>1818</td>
<td>3,728</td>
</tr>
</tbody>
</table>

It is interesting to note a reference to undelivered Kane for 1815. There are accounts for the sale of wood, stones, sand, lime, and fruit for the period, and the expense of enclosing. One rood of ditch and hedge cost 2/9d. while a rood of dyke cost 15/-.

James Jackson in his Account of the Parish of Penicuik (1829), the New Statistical Account author for Penicuik, and Wilson in his Annals of Penicuik give some information about the condition of farming during the century. In the style of Mr. Low, Jackson refers to the large proportion of fine sharp turnip soil on most of the farms, valuable for a dairy and rearing stock, and for the creation of rich manure. He states that till shortly before 1829 waste land was broken by the Scots plough, but that now stout iron ones or Finlayson's red one plough the ridges which are generally fifteen feet broad, but sometimes twelve feet on wet clay soils. He thinks that there is too
little deep ploughing (a similar complaint made in Clydesdale after abolition of the Scots plough) but that in the convertible husbandry then practised in most of the dairy farms of the parish, that there is less occasion for deep ploughing, since the soil is always fresh and unexhausted.

Dairying and the rearing of stock seem to have been well established by the 1330's. Jackson states that breeds of black cattle and dairy stock were improving, and that the Ayrshire cow which had been doing so well in the upper ward of Lanarkshire was also showing its value in Penicuik. The writer of the New Statistical Account declared that dairying was the most important branch of farming in the district, and the rents were chiefly paid from dairy produce. Milch cows were pastured from Whitsunday to Martinmas for £5, and sheep from 5/- to 12/- per annum. Wilson in his Annals (p. 114) describes the extension of dairying in the region, and attributes part of its success to the fact that from about 1360 most of the leases had been taken by progressive west country dairy farmers.

Jackson describes the reclamation of moorland that took place in the time of Sir George Clerk, as being essentially constructive and permanent. He advocated in his essay, dividing marginal areas into arable or dairy farms of about 100 or 200 acres each, in the manner of Baron Sir John Clerk's projects. The writer of the New Statistical Account however remarks that the agricultural population of the parish has been checked by
the increase in the size of farms.

**Present-day farming.**

Upper Lowland Peneplane - Large farms with store cattle and sheep. Smaller farms of a hundred or two hundred acres more markedly marginal.

Pentland Hillfoot Farms - Combination of dairying on lower land with rearing of blackfaces on Pentland slopes, and growing fodder crops.

Penicuik & Lower Lowland Peneplane - Mixed farming, with production of milk for Penicuik or Edinburgh.

**Statistics of Third Statistical Account.**

<table>
<thead>
<tr>
<th>Crop/Animal</th>
<th>Quantity</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheep</td>
<td>17,500</td>
<td></td>
</tr>
<tr>
<td>Dairy cows</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Fat stock</td>
<td>248</td>
<td></td>
</tr>
<tr>
<td>Pigs</td>
<td>441</td>
<td></td>
</tr>
<tr>
<td>Poultry</td>
<td>6,022</td>
<td></td>
</tr>
<tr>
<td>Horses</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Barley</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Oats</td>
<td></td>
<td>987</td>
</tr>
<tr>
<td>Turnip</td>
<td></td>
<td>1,721</td>
</tr>
<tr>
<td>Rape</td>
<td></td>
<td>111</td>
</tr>
<tr>
<td>Potatoes</td>
<td></td>
<td>275</td>
</tr>
<tr>
<td>Mango</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Cabbage</td>
<td></td>
<td>26%</td>
</tr>
<tr>
<td>Fallow</td>
<td></td>
<td>112%</td>
</tr>
<tr>
<td>Grass</td>
<td></td>
<td>3,547</td>
</tr>
<tr>
<td>Rough grass</td>
<td></td>
<td>12,211</td>
</tr>
<tr>
<td>Marginal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Vegetables for humans</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>5½</td>
</tr>
</tbody>
</table>

**Marginal Land** - "Improving Marginal Land" H.M. Stationery Office.

Advocates deeper ploughing, and the ploughing of any land that has been ploughed during the past hundred or hundred and fifty years, and under permanent grass since then. This being done on Mountlothian farm for government bonus of £2 for each new acre. The farmer has 30 score of sheep on the farm and 180 dairy cows.

Advocates greater use of either carbonate of lime or burnt lime. Within the last year or two there have been investigations about re-opening Mountlothian limestone quarries.
Commons of Penicuik Estate.

1) Commonty of Pennycuik. The "lands of Auchincorth with the commonty of Pennycuik" are mentioned in a sasine dated 1646, but after the purchase of the estate by the Clerks in 1654, there is no further reference to the commonty. The presence of this common may partially account for the strip formation of farms running south-west from the Black Burn, and for the rundale of Carsewell Farm, giving it a strip with frontage on the common.

2) Mosshouses Commonty. The tenants of Halls and Fallhills, as tenants of Sir John Clerk had the right to cut peats on about a third of this flow moss common. (1743 Rental).

3) Preston Commonty. According to the 1741 Manuscript, this common extended from the south-east side of Lillyburn (Lilyburn) south of the highway to Dalkeith, extending up to Kings Leas belonging to Lord Primrose, and touching the lands of Carrington as well as Sir John Clerk's. (Kings Leas not shown on 2½" map). This commonty was divided before 1731, and Sir John Clerk acquired a section of it valued at £20 Scots yearly. He described this piece of ground as being very capable of tillage.

4) Glencorse Commonty. Sir John Clerk had a considerable interest in the commons of Glencross and Turnhouse Hill. On page 4, 1741 Report he refers to a Decreet of Souming and Rouning "which was a decision obtained with great difficulty, and is of value because of the souming of nolt
and sheep and the advantage of dividing the Commonty of Glencross which has hitherto been obstructed." This is explained in the 1743 rental where Sir John declares that the proprietors of the Common were Lord Holyroodhouse, formerly Laird of Glencross, Mr. Philp of Greenlaw and himself, but "The Town of Edinburgh has the property of the mercat keapt at the House of Moor for sheep and they have a Servitude over this Commonty for the benefit of their mercat, that is to say the sheep which come to this mercat have a privilege of grazing here. - This servitude stands in the way of dividing the commonty and improving it to better purposes than it is at present."

The rental of 1743 - Lawhead - refers to a survey of the moor having been made by Mr. Adair, Geographer.

Besides rights of souming and rouming, tenants with privilege of the Common might cast turfs and sods for their houses all over the moorish parts but could not cast in the grass grounds, especially the Laigh Moor - this by consent of parties. (1743 Rental with reference to a decreet of perambulation). There is a statement under 'Cooking' in the 1743 Rental to the effect that Glencross Moor was ordained to pasture 140 soums in summer and 40 in winter. Of this Cooking (Cuiken) had the right to 16 soums and 13 parts of a soum in summer and 4 soums and 16 parts of a soum in winter. In the 1731 rental Sir John Clerk declared that Moorside of Cooking, part of Cooking, was now separate to preserve his right to the moor of Glencross "to save us the decreet of souming and rouming and the right reserved of casting fail and
divot will go." (This section did not remain separate for long). According to the 1743 Rental, the tenant of Lawhead might graze 13 soums in summer and 3 soums and 17 parts of a soum in winter.

1795. A Commony Process of Division took place in 1795. The following table was obtained from Mr. Mackenzie-Inglis of Loganbank.

<table>
<thead>
<tr>
<th>Scheme of Division of Glencorse Commony</th>
<th>£.  s.  d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 acres at 5/- for Sheep market for Town of Edinburgh</td>
<td>1. 10. 0</td>
</tr>
<tr>
<td>20 acres for Sir John Clerk</td>
<td>7. 3. 5</td>
</tr>
<tr>
<td>73 acres Mr. Bothwell</td>
<td>19. 17. 9</td>
</tr>
<tr>
<td>40 acres Mr. Caddle</td>
<td>7. 4. 5</td>
</tr>
<tr>
<td><strong>£35. 15. 7</strong></td>
<td></td>
</tr>
</tbody>
</table>

(Information in Old and New Statistical Accounts about the House of Muir Sheep Market.)

Note also Sir John's part of the Common and Common House shown on Plan for Lawhead, 1796 and a section of Preston Common on plan of Fallhills 1796.
THE TOWN AND LANDS OF PENICUIK.

In the middle of the 17th century, Penicuik was a place of sufficient consequence to possess at least four ploughgates of land, and to be referred to on occasion in the Kirk Session Minutes, as a burgh. Where a farm hamlet was a "toun", a village with Kirk and mill, might well be a "burgh". 1

The 17th century allocation of Penicuik town lands and the subsequent fortunes of these lands furnish significant material, which may illustrate the typical evolution of such considerable township lands. Here was evinced the tendency common in Scotland from medieval times onwards, for a centralised settlement nucleus working a large land unit, to lose its farthest outfields to individual colonists. There follows a period of experimental annexation, amalgamation, and separation, leading to the final break-up of the whole organism into land units. The guiding hand of the laird may be seen in land policy and village planning, as also the growing power of the wealthy tenant, in this case the mill-owner, and the final assertion of the village become burgh, whose growth circles now encroach steadily on the erstwhile farm lands.

The North Esk and the Black Burn flowing in progressively incised valleys, come down from the moors of the "upper Lowland Peneplane" to meet by the site of Penicuik. Above and below the town are steep-sided narrow valleys, but here gentle slopes

1. The following photostats cover the area considered in this section - Folder 49, 50, 51, 52, 54, and 73.
   See also Folder 44, 45, 46, and 47.
rise on the left bank to a corridor standing at 600 feet, between two hills a hundred feet higher (See Fig.  ).

Penicuik has spread northwards along that corridor from the original site by the river, and on the crest of the terrace overlooking it. The opposite banks rise to the ridge that marks the edge of the upper lowland peneplane and to the north-west are the slopes of the Pentland Hills. The old tracks to Edinburgh and to the laird's mansion ran across the minor hills beside the village, and it was not till the 19th century that the Edinburgh road was constructed, using the gap formed by the Loan Burn. Penicuik had neither a main through road nor a market - merely potential water-power, a kirk and a powerful laird.

The village was straggling and haphazard in plan until 1770 when Sir James Clerk laid out the present High Street. Although the 1796 plan shows one steading only, within the town, namely Laurie's Farm House beside the old Corn Mill, there is no doubt that Penicuik was originally a considerable farm village, housing in the 17th century a number of substantial tenants with defined farms, as well as wrights, masons, thatchers and other craftsmen. The original fermtoun may have stood beside the Well in the High Street, which until 1864 was the principal source of water for Penicuik. In 1745 this farm is referred to as the old Penicuik farm-house. On one side of it stood the Church and Inn, and on the other,

Fig. B.1. View from Uttershill Castle, looking north-westwards across the River Esk towards the erstwhile croft lands of Penicuik—two fields in the foreground.
the rest of the hamlet. In his report of 1741, Sir John Clerk refers to the town of Penicuik as consisting of his tenants and their cottars. He remarks that the tenants have long tacks for improving their farms "which they never did nor never will." He advises the enclosing of the town barn and kail yards.

Other indications of the existence within the town of Penicuik of the farmsteads of individual farms, are to be found as follows. In an allocation of Church pews, dated April 1772 in the Kirk Session Records, there is reference to "John Laurie for his Farm in Pennycook Town". The plan of 1796 shows that the tenant of Cornbank Farm possessed a section of Penicuik croft land, a park and two houses within the town, although there was at the same time a stead ing on the farmlands outwith the town (See Fig. 61.). A Penicuik doctor declares that within living memory there stood a small farmstead called "Croftlands", close to the High Street.

The earliest rental available (at least until the Penicuik papers are properly catalogued in Register House), that of 1654, shows the lands of Penicuik divided into sixteenths and eighths, which were assessed in units of 42 pounds Scots for each sixteenth. Thus if the town lands were ever allocated in equal shares, sixteen tenants would work what obviously was regarded as a unit, and presumably comprised four ploughgates of land. In 1654, the shares were unequal, one tenant possessing as much as a quarter of the whole (See table, Fig. 67.), and moreover the
proportion and the tenants' names remained constant until the 1694 rental, although the total rental rose. It seems therefore that runrig was 'fixed' by 1654, and almost ripe for the first amputation by the landlord.

An interesting note appended to the 1694 rental reveals that a sub-tenant might share the tack of a tenant for periods of one year, during which time he contributed proportionally to the payment of casualties, and no doubt also the money rent. It is declared that -

"3 hens
2½ loads of peats
2½ carriages
3 parts of one shearer
half a cart"

is the amount of the casualties payable for Mr Will McGeorge his 4th part of A Rob's tack from Whitsunday 1711 to Whitsunday 1712." Where such difficult co-operation was called for, one may well believe Cosmo Innes' ejaculation that runrig was a "fertile source of quarrels among cultivators of the soil."

No doubt sub-tenancy produced considerable fragmentation of land and 'movable' runrig within the larger fixed possessions. There is for instance reference to a certain John Grey producing ten bolls of bear from the half of his three acres of ground. (This also after the 1694 Rental).

When the rent of the lands of Penicuik was raised, between 1654 and 1684, twenty pounds Scots was added to the unit payment

1. Scotch Legal Antiquities, p. 252.
for one-sixteenth, raising it from 42 to 62 pounds Scots. The rent remained constant until shortly after 1694 when a new and more profitable system was adopted. An illustration is given as follows, from the 1694 rental book -

(Scots pounds)

"Note of raising rent - In 1654 Glascals = 84
   Double = 169
   1697 = 166

Patrick Craig in 1654 = 127
   Double = 254
   1697 now = 187
   To be heightened = 66"

Thus Patrick Craig was to pay double his 1654 rent, and not merely three times 62 Scots pounds.

It may be noted that it was the practice when doubling or trebling the unit rent to add one Scots pound, thus making an odd number. Perhaps 125 pounds Scots for one-eighth part of the lands was the basis of the calculation and the ten shillings were ignored when the sum was halved. The total rental for the eight parts in 1684 and 1694 was 999 pounds Scots. Considerable changes were soon to yield a large increase of rent, although a total of 999 pounds Scots for what may be taken as between 450 and 500 acres, represents a high rental, compared with those paid by other farms on the estate. For example, in 1694 the following rents were paid -
### Table

<table>
<thead>
<tr>
<th>Farm</th>
<th>Pounds Scots</th>
<th>Acres</th>
<th>Rent per Acre (Scots)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braidwood</td>
<td>266</td>
<td>298</td>
<td>17/9d.</td>
</tr>
<tr>
<td>Dykenook</td>
<td>126</td>
<td>200</td>
<td>12/9d.</td>
</tr>
<tr>
<td>Coats</td>
<td>200</td>
<td>198</td>
<td>£1 - -</td>
</tr>
<tr>
<td>Halls</td>
<td>351</td>
<td>454</td>
<td>15/6d.</td>
</tr>
<tr>
<td>Tower - let in halves</td>
<td>224</td>
<td>122</td>
<td>£1.17/-</td>
</tr>
<tr>
<td>Penicuik Lands</td>
<td>999</td>
<td>450 - 500</td>
<td>£2.4.6d to £1.19.9d.</td>
</tr>
</tbody>
</table>

During the period 1654-94, Thomas Lowrie, the possessor of the fourth part of the lands, was said to be in "Wellhead", and the rental of 1759 almost a century later, describes John Lowry as the tenant of a quarter of the town lands of Penicuik, called the Wellhead. Patrick Craig's portion of three-sixteenths appears to have remained in the Craig family, and to have been augmented during the early 18th century. In the 1743 rental, Robert Craig was said to possess the 'Cornyceat' or 'Corngate' of Penicuik. The 'Glascauls' remained the outfield lands of the mill until enclosed by Sir John Clerk, and relinquished by the miller in 1736. These three possessions together account for nine-sixteenths of the whole, and continued to be explicitly mentioned as the lands of Penicuik, until the Corngate became Combank Farm in the 1750's. The other seven-sixteenths, shared by three tenants, disappear from the list of Penicuik lands after 1694, and the fate of a portion of these is obvious. In the rental of 1731, a new farm called "Eastfield of Pennicuik" is mentioned, with the comment that this comprised outfield land of Penicuik, together with some
sixteen acres of the town croft land. At the same time the rental of the Corngate was considerably increased from 187 to 445 pounds Scots, while the rent of the Wellhead rose a mere 50 pounds Scots from 250 to 300. This suggests that the Corngate was extended at the expense of a portion of the seven-sixteenths, mentioned above.

The diagram of 17th century Penicuik shows the position of the croft and outfield lands, so far as those can be deduced from the information available, and on it is marked the suppositional location of the Corngate, Wellhead, Brewlands and Kirklands, as well as the actual location of the Glaskills (See Folder 44). It may be well to pause, before proceeding with the development of the town lands, to consider the evidence denoting the boundary and total acreage of the lands, on which the diagram was based.

The estate plans of 1796 show the land pertaining at that time to Penicuik and its Mills, and it has been presumed that this represents part of the original town lands. Since the lands of Uttershill, Loanstone and Pomathorn were not acquired by the Clerk family until shortly after 1694, it appears that the Esk formed a natural part of the boundary. In the rentals of the 1600's there is no mention of the farms of Eastfield or Cornbank, and it is known from Sir John Clerk's Report of 1741 that Eastfield and at least part of Cornbank were outfield lands of Penicuik. If this boundary be adopted the acreage according to the 1796 plans is as follows:-
B8.

<table>
<thead>
<tr>
<th>Location</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penicuik Paper Mill Lands</td>
<td>23</td>
</tr>
<tr>
<td>Town and Glebe</td>
<td>14</td>
</tr>
<tr>
<td>Cotton Mill Feu</td>
<td>46</td>
</tr>
<tr>
<td>Penicuik Mill and Glaskills</td>
<td>185</td>
</tr>
<tr>
<td>Cornbank</td>
<td>198</td>
</tr>
<tr>
<td>Eastfield</td>
<td>106</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>572</strong></td>
</tr>
</tbody>
</table>

Certain deductions must be made from this total, but an accurate calculation is impossible, because of the lack of plans previous to 1796 and the vagueness of the information available. The rise in rents between 1694 and 1743, and the disintegration of sections of the lands, confuse the issue, and it does not follow that proportional rents necessarily indicate equivalent acreages. Included in the total are the Brewlands or Kirklands of Penicuik which evidently were not regarded as an integral part of the town lands. These may be the Kirk lands which, at the time of the Reformation, were granted by the Rector of Penicuik to his relative, William Pennycook. These eventually came again into possession of the lairds of Penicuik, and presumably were attached to the Brewery, which stood beside the Inn of the town. From observation of the rentals of 1694 and 1743 it seems likely that these were rather less than one-eighth part of the townlands,

1. *Annals of Penicuik,* p. 73.
in area. In the Report of 1741, Eastfield is said to comprise about 95 acres, and from observation of the plan of Eastfield it seems likely that a field of some 12 acres had been added, from the adjacent common or from Cuiken Farm, to give the 1796 total of 106 acres.

The farm of Cornbank was said in 1741 to be part outfield of Penicuik, and part outfield of the adjacent Coats farm. Since 173 acres only was actually let to Cornbank in 1796, this may be taken as the acreage, instead of the total of 198 shown on the plan.

Finally a deduction of about 10 acres may be made, to cover the area occupied by the village, and the minister's glebe, which was more than 4 acres in 1741. It must also be remembered that the Bog of Penicuik was a common moss extending to about 30 acres, but included in the farm of Tower by 1796. There was also a garden of 6 acres, and a patch called the Smidie Bog, in possession of the gardener and the minister respectively.

If the total of 572 acres be reduced by 25 acres from Cornbank, 11 from Eastfield, and 10 for town and glebe, a total of 526 acres remains. In the 1741 Report the Glaskills, which was one eighth part of the lands, is said to total 56 acres. If the Brewlands, which were rented at 7 pounds Scots less than the Glaskills in 1694, be taken as 53 acres, there would remain 473 acres for the townlands of Penicuik. If the
acreage of the Glaskhills be indicative of an eighth part of the town, the whole would total 448 acres. If there was a relationship between rents of 1743 and equivalent acreages, a slightly larger acreage might be deduced, as follows:

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Rent</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glaskills</td>
<td>$\frac{1}{8}$</td>
<td>166</td>
</tr>
<tr>
<td>Wellhead</td>
<td>$\frac{1}{4}$</td>
<td>300</td>
</tr>
<tr>
<td>Corngate or Cornbank</td>
<td>less than $\frac{3}{8}$</td>
<td>445</td>
</tr>
</tbody>
</table>

If 173 acres represented the Corngate in 1741, the total might be about 464 acres. It may be seen from these deductions that the total of Penicuik town lands probably lay between 450 and 475 acres, so that, if there were four ploughgates, each would amount to between 112 and 119 acres. A Statement relative to the lands of Linton, close to those of Penicuik, refers to 16 oxgates comprising 240 acres, in which case a ploughgate would equal 120 acres. (Statement in the hands of the Earl of Wemyss). A large ploughgate may have been a local characteristic.

Sir John Clerk's Manuscript Report of 1741 and the two rental books of 1731 and 1743 reveal the early stirrings of the "improving" spirit. Sir John wished to organise, to plan, enclose and beautify, and not least, to increase the rents. "Penicuik Town," he says "has hitherto not been very well lookt after for the Houses might have been more Regular and
better built with very little more pains and Attention." He had built a large house for an inn "where there is a tolerable County Room Designed for a Court Room and for Company at marriages or burials. I builtlikeways the Manufactory House and have encouraged others to build."
The 1743 Rental informs us that the "Manufactory House" was let to a weaver for the encouragement of linen manufacture, free of rent for the first four years and then for 24 pounds Scots. At the end of his report, Sir John recommends the building of "Houses in pennicuik regularly and at least of 2 stories or rather 3." Thus was intelligent provision made for the housing of what was hoped would be a growing industrial population, although the planned lay-out was not achieved until about 1770. Moreover this was to be no drab, prosaic burgh - "As to the grounds about this place, they ought to be enclosed that so the whole might resemble a Garden." Sir John declares that he has built the House of Eskfield for a Gardener, made a garden there, and an enclosure, containing five acres. The plans of 1796 show, if not a garden city, a most attractive and well-ordered pattern with a garden theme - a credit to this laird of vision. The River Esk, delicately fringed with trees and overlooked by wooded banks, flows from riverside market-gardens above Penicuik, past the Paper Mill with its ornamental gardens, to the ambitious serpentine walk along the terrace between the Cotton Mill and the bridge. Penicuik village has the trim
air of a modern housing scheme with its regular lines of houses, tree-girt gardens and village green. Kirkhill, the village built for the cotton mill workers, has the same regularity of design, with grass patches, surrounding clumps of trees and plots that have the appearance of allotments, at one end of the village. The roads, fringed with hedge and tree, show that another aim of Sir John Clerk was achieved by 1796. He recommended the planting of these along the roadsides, but declared that they would never prosper until the sheep of the town and adjacent Tower Farm, were put away.

Sir John Clerk's designs for the lands of the town were progressive, if not so disinterested. Writing in 1730, he stated that the lands of Penicuik Town were in twenty-seven different parts, though in the hands of three tenants, and none of these parts enclosed. The three tenants referred to were presumably those of the Wellhead, Corngate, and Glaskills. He says, "About this time I got my Tenants at Penicuik to divide their Lands, for till now all of them were in Run-Rig. This I found a very difficult matter, for that few Tenants cou'd be induced to alter their bad methods of Agriculture." When attempting the enclosure of the Glaskills in 1740 he declared that hitherto he has found Scots tenants so far from encouraging enclosures that they take all the pains in the world to destroy them. At the end of the manuscript report on Penicuik (1741) a general rise in rents

2. Ibid., p. 159.
is predicted. "The Lands are too cheap especially the Mill Acres - As all the Acres about penncuik are worth 20 shillings ster. each yearly - they ought to be measured before they are let again." Since the total rent for the lands in 1743 was under 2000 pounds Scots or £166 sterling, for over 500 acres (including the Brewlands) one pound sterling per acre represents an increase of about 300%. With this purpose of increasing rent in view, unwritten tacks were commonly granted to the tenants during the transitional period.

The general policy of Sir John Clerk was to create land units of former outfield lands, to separate these from the croft lands pertaining to them, and where suitable to let the croft lands, subdivided. (Cf Folder 45 and 46)

It is not surprising that the East field of Penicuik was the first of the outfield lands to become a separate farm, because this is the lowest-lying part of the estate, relatively level, and according to Sir John "there are fine warm pieces of ground here." Sir John Clerk took possession of the combined farms of Eastfield and Cuiken in 1729 from an outgoing tenant, Robert Hasty, who had possessed them jointly at a total rent of 733 Scots pounds, plus casualties. According to the rental of 1743, Eastfield farm was formerly separate, was about 95 acres, and had about 16 acres of croft land in Penicuik, with a bit of meadow ground of the Loan Burn - these
apparently in addition to the 95 acres. This individual portion of Penicuik town lands had previously paid 316 Scots pounds plus casualties, but by 1743 had been let more advantageously as part of Cuiken, without the crofts, which were now let separately. Sir John Clerk admits that the combined farms did not prosper under his hands, and he regrets re-letting them together to the tenant in possession in 1743. He declares that this land of Eastfield, always an outfield, should be a unit, with houses built in the middle of it. A footnote, dated 1747, adds that the farm houses are now built, and are the best in the barony. By 1759, Eastfield is shown in the rental as an individual farm.

The formation of Combank farm was envisaged in the Report of 1743. It is stated that there is a large area of dale ground lying between Loan Burn and Cuiken Farm, which is part outfield land of Penicuik and part outfield of Coats Farm. It is therefore proposed that "this great piece of plain ground which will be found to be 100 Acres at least, all arable should be drained and inclosed, and let by itself with a Tenement of Houses in the middle of it." An entry in the 1743 Rental shows that Robert Craig, tenant in the Corn-yeat or Corngate — presumed to include these aforesaid grounds — holds an unwritten tack for 39 years from 1728. There is a proposal that his lands should be divided, and houses built upon the "Muir". Since the grounds are high and cold, no
enclosure should be more than 8 acres in size. The first reference to the farm of Cornbank occurs in the 1750's. Amongst the first rental entries in sterling money, Thomas Mathieson is mentioned as tenant of Cornbank, paying £40 rent, while Robert Craig is granted a lease of Pomathorn Farm at the same sum, with an explanatory note that he was refused a new tack - presumably of the Cornagate, - "by reason I intend to Inclose the farm when I conveniently can employ my workmen that way."

The comment by Sir John Clerk that "The present Tenant of the Mill of Pennicuik has a good bargain of it, but keeps his Houses and Lands in no kind of order," heralds his relinquishment of the Mill outfield lands or the Glaskills, in 1736. He was allowed to keep "that part of the said lands which is reckon'd part of the Croft Land of Pennicuik," and in exchange for the outfield lands, was given a nineteen years' lease of a farm near Pennicuik. The reason given for taking the lands was that these might be enclosed and let to the tenant of the Brew Lands and Town House of Pennicuik. It was said that this land was necessary for the innkeeper, or those in Pennicuik who kept cows. A previous note states that Robert Wilson the miller was holding the Glaskhill acres from year to year only, and whereas he paid 200 merks only for them, now that the acres were enclosed, they might be let with advantage at 15/- or 20/- sterling per acre. By 1743, parks
in the Glaskills were being let to the minister, schoolmaster, innkeeper, and others, some for periods of 19 years. Specific instances show four acres plus being let for 35 pounds Scots, five for 45 pounds Scots and six for 54 pounds Scots.

The reason why John Laury in the Wellhead, was not to have his tack of 57 years renewed (1743 Rental) was partly because the land was worth a great deal more rent than he was paying for it, and partly because Sir John Clerk wished to possess some of his crofts on the west side of the Loan of Penicuik, with a view to Penicuik housing extension. There is no mention of alteration to his outfield lands.

The croft lands separated from their former outfield lands by 1743, appear to have been let to members of the professional and merchant classes, in units of 2 or 4 acres, and sometimes for periods of 9 years. The 4 acre units might be possessed by two tenants, in equal shares. An instance is quoted of 2 acres being let for 9 years at a rent of 20 pounds Scots and 2 hens or 6/3d each, and another of 4 acres, let to a mason and a shopkeeper, also for 9 years, at a combined rental of 55 pounds Scots.

In the 1743 Rental a common moss of several acres called the 'Bog of Penicuik' is mentioned. The peats of this moss were used by tenants in the west end of the town, and particularly by those who possessed the Croft Acres. At a meeting attended by the laird and his tenants, in 1741, it was agreed
Fig. B.2. View from Uttershill Castle, looking down the Esk Valley towards Valleyfield Paper Mill in the foreground, and the original cotton mill in the background.
to divide and improve it in the best manner. Sir John Clerk adds as a memorandum that if an opportunity occurs, this should be in one hand, and might be worth 20 pounds (Scots) yearly. Most of this by 1796 had become the Bog Wood of Tower Farm.

It is strongly recommended in the 1741 Report, that the minister's glebe should be restricted to 4 acres of enclosed land, and "Ministers ought neither to have Corn grounds nor grass more than their Glebes because they generally take no care of them." This contrasts strongly, though no doubt accurately, with the tributes so often paid in other parts of Scotland to the good example set by ministers in improved methods of tillage.

In this way the transformation of Penicuik town lands was begun in the early eighteenth century, old customs and traditional rights being uprooted with the deficiencies of Runrig.

The eighteenth and early nineteenth centuries saw the rise of the future mainstay of Penicuik - the paper mills. The nucleus of the subsequent Valleyfield Paper Mills was built in 1708, the old Waulk Mill was converted to a paper mill in 1749, and Esk Mills were converted to paper mills shortly before 1820. Previously, between 1773 and 1777 the first cotton mill in Scotland had been erected at Esk Mills, and by 1794 this mill employed over five hundred people, and possessed the Cotton Mill Feu of some forty-six acres. The

1 See Fig 8.2.
1796 plans show clearly that at that period these mills, with
the Corn Mill of Penicuik, monopolised the lands of the town,
if the farms of Eastfield and Cornbank be excepted. Together
they possessed 192 acres, in the following manner:

<table>
<thead>
<tr>
<th>Scots Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valleyfield Paper Mill</td>
</tr>
<tr>
<td>Cotton Mill Feu</td>
</tr>
<tr>
<td>Pennycook Mill</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

A farm steading is shown on the Cotton Mill Feu plan,
on the main road close to the Mill, and it appears that Laurie's
Farm of the Wellhead had become the Corn Mill Farm. (The Corn
Mill was purchased by Messrs. Cowan in 1804 to form an exten-
sion to their premises at Valleyfield). Laurie's Farm House
is shown standing close to the Corn Mill.

The observations of Alexander Low, who reported on the
Estate of Penicuik in 1797, are of some interest. He declares
that where there is a village of increasing value, such as
Penicuik, there is a need for small farms to cater for manu-
facturers or persons with a small stock. He advocates, however,
increasing the size of Eastfield Farm by 60 acres of excellent
arable land worth 40/- to 50/- per acre, to be deducted from
Penicuik Mill Lands. Eastfield is to be increased in size
because its low-lying position and good soil suit it admirably
to the profitable turnip husbandry, and it would thus be desir-
able to attract good tenants to it.
Mr. Low agrees with Sir John Clerk's method of letting the Glaskill Parks. He says that these are of poorish stiff soil, best disposed of by being let out for grass or tillage to inhabitants of the village. The rent at that time was 15/- to 25/- per acre.

The connection between Cornbank Farm and the town was still strong in 1796, in that eight acres of Penicuik Croft land, one of the Glaskill parks, another small park and two houses in the town were still in possession of the farm. One of the houses stood in the Square of Penicuik, which may have been the site of the original steading. Mr. Low recommended that the farm should be increased in size by annexation of land from Tower Farm, but that it should lose the Penicuik Croft land.

Sir James Clerk, laird from 1755 to 1782, besides planning the town, was responsible for the opening of the through road from Edinburgh to the South, which can be seen on the plan of 1796. Although contemporaries condemned the turnpikes built in this parish for their unnecessary gradients and poor construction, no doubt they did stimulate the commercial life of the town.

The early nineteenth century saw progressive alienation of the town lands of Penicuik, and the further fragmentation of what remained, in particular of the croft lands of the town. Rentals are available for the years 1812 to 1818 (See accompanying statistical sheet).
The upheaval of war led to the relinquishment in 1811 of both the Esk and Valleyfield Mills to give accommodation for prisoners of war, but Messrs. Cowan still figured prominently in the rolls. The firm was in possession of the Mill of Penicuik, its steading and croft, but the old Corn Mill, now manufacturing bank notes, no longer commanded the lands, which it has been assumed, once corresponded roughly with Laurie's quarter of the lands of Penicuik called the Wellhead. Broomhill Garden (to-day some 20 imperial acres), the Croft Garden, and Penicuik Croft feus, occupied most of the former croft land. The Brewlands, shown on the 1796 plan as a narrow strip of some 6 acres stretching from the Brewery to the Loan Burn, had now acquired about 26 acres of the Mill Lands, and Alexander Low's advice regarding the enlarging of Eastfield Farm at the expense of the Mill Lands, had apparently been followed.

Messrs. Cowan also possessed, at this time, a barn and kiln belonging to the Brewery, and the Farms of Gormbank and Tower. As recommended in Mr. Low's report, the South Croft of Gormbank was separated from the rest of the farm in this period, and went out of the hands of the Cowans.

Two Glaskill parks only are mentioned in the rentals, because gradually these parks came into possession of the tenants of Cuiken and Eastfield Farms.

At this time small lots of one or two acres were let in Kirkhill to tenants, some of whom are named, in the Annals of Penicuik (p. 119), as hand-loom weavers.
Thus the present disposition of the remaining cultivable lands of Penicuik took shape. The Brewlands came to be known as the Hotel Lands. Only some 16 acres of the 32 acres of last century remain, and these to-day are rented at £18 yearly. Broomhill Garden, a small-holding of about 20 acres pays yearly £54 rent. Charles Cowan in his Volume of Reminiscences refers to a "maill" of at least 2 acres, close to the village, cultivated by James Jackson, and producing good strawberries. This Croft Garden, subsequently called Croftlands, is an example of the small nurseries and market-gardens found within the town to-day.

During the period from 1743 to 1818 the total rent of the lands of Penicuik rose from about 2,000 Scots pounds or £166 sterling to £1,078 sterling in 1818, and that of Eastfield Farm from 312 Scots pounds or £26 sterling to £216 in the same period.

Now the tide of affairs has turned, and the Burgh is sweeping outwards with its building schemes. The parish minister in the Third Statistical Account (1952) states regretfully that Cornbank is partly built over, Broomhill and Eastfield are doomed and Cuiken has almost ceased to exist.
GLOSSARY.

Acre: An acre Scots was equal to 1.26 Imperial acres.
    40 Falls equalled 1 Rood.
    4 Roods equalled 1 Acre.

Acreman: A smallholder who had a share in the runrig acres pertaining to a burgh or village community.

Barleyman (also Bizleyman): A disinterested person nominated by a superior or by tenants to act as an arbitrator.

Baulk: A permanent strip of furrow separating two rigs, and commonly consisting of coarse grass, weeds and stones.

Bear (also Bere): A poor type of barley.

Benty: Term applied to pasture or heath, consisting of coarse grass, such as nardus.

Boll: This was a dry or liquid measure of capacity. Corn measures varied greatly even within counties, and seldom conformed to the standard set by the Scottish Parliament in 1618. By this standard, a boll of wheat contained 35 pints or 319 pounds of water, and a boll of barley—measured by a different set of measures—contained 124 pints or 466 pounds of water. A boll of meal commonly weighed from 8 to 10 stones, 8 stones being the equivalent of 1 Cwt. Avoirdupois.

A boll of coal varied from 56 to 72 stones.
4 Lippies equalled 1 Peck
4 Pecks equalled 1 Firlot
4 Firlots equalled 1 Boll
16 Bolls equalled 1 Chalder.

Bondage (also Bonnage): Liability of a tenant or sub-tenant to perform stipulated services on the lands in natural possession of his superior.

Bught: A sheep fold.

Butt: Small wedge-shaped field divided into rigs, usually referred to in the plural.

Capeing: Making a turf coping for a stone enclosure wall or dike.

Castle: Name locally applied to drumlins on Penicuik Estate.

Casualty: A ground burden paid in kind or in money.

1. Familiar terms are interpreted rather than defined.
Chaddy: Term applied to land consisting mainly of gravel.

Chain: A Scots chain was equal approximately to 74 feet, and to 1.12 Imperial chains.
6 Ells equalled 1 Fall
4 Falls equalled 1 Chain
10 Chains equalled 1 Furlong.
8 Furlongs equalled 1 Mile.

Common (also Commonty): A stretch of moorland or moss over which neighbouring proprietors and tenants had rights of pasturage or of exploitation of turf or peat.

Cot: A smallholder who possessed a cottage and yard, grass for a cow and perhaps a horse, and was granted some perquisites in exchange for services performed for his master.

Cot-town: A cluster of dwellings possessed by the cottars or sub-tenants of some proprietor or tenant farmer.

Cottager: As for cottar. In Clydesdale this term might signify a small farmer.

Craig: A rock. Lime Craig - Limestone Quarry.

Croft: (also Infield). This may be applied to the arable lands adjacent to the fermton which received manure and were more intensively cultivated than the outfield. In Strathmore, the better arable land of a farm, wherever situated, might be designated croft or infield.

Crofter: A sub-tenant who possessed a fixed smallholding or "croft" in the croft land of a farm. In the eighteenth century croft possessions might be found on the fringes of a farm.

Darg: The quantity of peat which one man could cut, and two men wheel in a day.

Dike: (also Dyke). An enclosure wall built of loose stones (dry stane dike) or of stone and mortar.

Divot: A thin oblong turf used for roofing houses, and also for fuel.

Drumlin: Whale-backed mounds of boulder-clay, typical of glacial deposition regions. They are disposed en echelon, their longer axis generally following the direction of ice-movement, and in the districts under consideration may form prominent features of the landscape.
Ell: Scottish unit of measurement. An ell was 37.0598 Imperial inches.

Erosion Surface: (See Peneplane). A surface which at some time has been reduced to a peneplain, and which may subsequently after elevation have been subjected to considerable dissection of further erosion cycles so that the old surface is preserved merely as a series of flattened hill summits or in stretches of limited extent.

Esker: Long, narrow and sinuous ridge of gravel and sand, associated with glacial deposition regions.

Fall: 18.5 feet, lineal measure, the equivalent of an English pole.

Fallow: The complete resting of land by keeping it free of growing matter, whether grass, crops or weeds. Frequent ploughings were given.

Fauld: Division of outfield land, manured by grazing sheep and cattle.

Feal: Turf used for construction of houses or for manure.

Fermtoun: In lowland Scotland this signified a hamlet whose inhabitants were linked by their co-operative husbandry, or by their joint possession of the same Farm unit. In Strathmore these hamlets might survive after both these conditions had passed.

Field: A common contraction of outfield.

Firlot: See Boll.

Flaughter-spade: A long two-handled instrument suitable for casting peat or turf.

Foggage: Rank grass of meadow or pasture, or occurring amongst grain, which had not been eaten in summer, and was subsequently consumed by horses and cattle. Tenants might have Foggage rights.

Fronting: Exclusive property in as much of a hill grazing as overlooked the land possessed by a tenant - Glenisla (Chapter III, p. 9).

Gnes: (or Gres) Illegible word in Glamis documents. Obsolete word for grass (Murray's English Dictionary - Gres).

Grassum: Sum paid by tenant to landlord on entering into possession of a farm.
Head-dyke: Dike constructed at the upper limit of cultivation.

Horsegang: Land pertaining to a husbandman, possessor of one of the horses used in a plough-team. This is said to be a quarter of a ploughgate or twenty-six acres. Term used in eighteenth century Clydesdale, but significance attached to it is not clear.

Infield: Croft.

Interjected: Term descriptive of possessions which had been intermingled, and lay runrig.

Kame: A low ridge or clustered mounds of sand and gravel. A Kame ridge is usually broader than an esker.

Kane: (Also Kain or Cane). A duty paid in kind, such as cheese or fowls. During the eighteenth century Kane was commonly understood to refer to tribute fowls.

Kirkton: (Also Kirkton). A hamlet or village with church or 'kirk'.

Led Farm: One of a number of farms in the possession of one tenant.

Lees: (Also Leys). Divisions of outfield which may signify intakes from moorland.

Lint: Flax, normally in raw or semi-finished condition.

Loan: A pathway of grass running through a fermtoun and sometimes linking it with the common grazing ground. It might comprise a fairly broad strip of pasture lying amidst the arable croft lands suitable for pasturing or driving cattle.

Lockspit: (Also Loxspit). To demarcate the line of some new structure, sometimes by digging a ditch (Strathmore).

Mailing: A smallholding which might be formed by consolidation of rigs.

Mains: Farm attached to a mansion house, worked by or for the laird.

March: Boundary.

Marl: Argilliferous limestone occurring as a superficial deposit in Strathmore. See Chapter III, pp. 95-97.

Merk: 13/4d. Scots.
Mile: A Scots mile was approximately an eighth part more than an Imperial mile, and amounted to 1976 Imperial yards.

Misk: Coarse grass found in mossy moorland (Clydesdale).

Mixen: Compost.

Multure: A fee charged for grinding grain.

Outfield: Land remote from the fermtoun which was never manured, or sometimes, simply the poorer arable land of a farm (Strathmore).

Oxgang: (Also oxgate). Commonly supposed to have comprised about thirteen acres and to have been possessed by the owner of one of the eight oxen necessary for a plough team. This term has seldom been encountered.

Paring and Burning: Removing turf with a flauther-spade, and burning it on the soil for manure.

Peck: See Boll.

Pendicle: Smallholding generally possessed by a sub-tenant and lying on the fringes of a farm. In the eighteenth century any small possession might be termed a pendicle.

Peneplane: A surface of faint relief, the end product of a cycle of erosion which has overcome differences of rock resistance, and thus produced a rolling gentle landscape. Considerable stretches of this surface may conform to uniform heights corresponding to a gently sloping surface. Such surfaces may be found uplifted, so as to form plateau surfaces or the summit planes of hills.

Ploughgate: The land pertaining to a one plough holding.

Policy: Pleasure grounds of a laird, which might include the mains farm.

Pound: A Scots pound was equivalent to 1/8d. sterling.

Quick: Quickthorn, or Quickset. A plant, particularly of hawthorn, set to grow for a hedge.

Riesguy: Coarse grass growing on moorish ground (Reesk, reisque - A New English Dictionary, Murray).

Rig: Ridge. A "standard" rig was said to be a rood or quarter of a Scots acre in size. It consisted of 40 square falls, a fall being 18½ feet.
Rod: A Rod of Masonry was 36 square yards. A Rod of Dyking was 28.8 Ells Scots by 1¼ yards high. (Note dated 1770, Glamis Estate Papers).

Rood: Quarter of a Scots acre.

Room: (Roume) General term applied to a possession in land.

Rundale: Term applied to the intermingling in runrig fashion of sections of estates, farms, or of compact blocks of possessions.

Runrig: Unless further amplification is given, this term is used in the sense implied in the contemporary expression - lands lying runrig - meaning the intermingling of sections of individual possessions, whether rigs or consolidated lots of rigs.

Scots Mile, Acre, etc. - See Mile, Acre.

Service Man: An assistant to a mason or carpenter, engaged on building or repairing a house.

Services: Stipulated duties required of a tenant or sub-tenant by his superior. These might include Bondages, or Service on the land, and the performance of a number of Carriages - of fuel or victuals - and errands.

Shade: Alternative name for a field.

Soum: Originally the number of sheep that could be supported by the land that would support one cow. (McArthur Survey of Loch Tayside, Introduction, p. 59, Scottish History Society 1936). An estimation of land by capacity to support livestock. (The expression 'souming and rouming' not encountered).

Stank: A pond, pool, or ditch, or merely marshy land.

Stell: A sheep fold.

Stouk: A shock of corn, consisting of twelve sheaves (Jamieson). Strathmore.

Sucken: Those who were obliged to have their corn ground at a certain mill were said to be sucken to it. (Jamieson). In the Hamilton Estate Papers the Sucken of Corra Mill (River Nethan) was said to comprise so many horsegangs of farms. (Journal, 1783, p. 78).

Swaird: Sward or turf.
Syke: A strip of poorly drained land.

Tack: A lease of land, whether verbal or written.

Tacksman: In lowland Scotland this term might be applied to any tenant in possession of a lease.

Thirlage: The binding of tenants, by terms of a lease or otherwise, to have all their corn ground at a certain mill, and to pay a certain proportion of the meal, in name of multure.

Toft: A yard.

Town: (Also Toun). In the eighteenth century this might apply merely to a fermtoun settlement, or might also include the farmland.

Township: The lands and fermtoun pertaining to a considerable community of people. Douglas Estate, Douglas Parish.

Workman: A day labourer.
Clydesdale – Chapter IV.

The Journals and other documents relating to the Hamilton Estates were found by chance on a shelf in the principal store room of Hamilton Estates Office. Those listed below were selected, after cursory examination, from a collection which may number about thirty in all.

The Journals are written in the form of a day to day diary, the activities, and often the opinions or reflections of the narrator being recorded. Transactions and statistics relating to enclosure, improvements, and other estate affairs, are frequently inserted in tabular fashion, and there is a wealth of information about estates other than those of Clydesdale, such as the Arran or Kinnell Estates.

Paper insertions show that someone – perhaps in the latter years of last century – went through the Journals and tried to establish the identity of the author. One slip records the conviction, which, it was averred, was backed by the evidence of eighteenth century publications, that John Burrell the estate adviser was the sole author. Certainly a document written on foolscap paper is headed: "Copy of Burrell's Journal with Respect to the Hamilton Estates ..", but the handwriting of the books is not consistently the same, and one or two of them were written before Burrell was appointed estate adviser, and in one or two instances he is referred to in the third person. It may be that
an assistant factor sometimes acted as his secretary.

Journals.

1) 1753-56 September 1753 - November 1756.
2) 1765-66 September - April.
3) 1768 February - September.
4) 1771 August - December.
5) 1773 March - September.
6) 1774-75 December - July.
7) 1777 April - November.
8) 1777-78 November - September.
9) 1778 May - September.
10) 1783 August - November.
11) 1790-92 December 1790 - September 1792.
    13) August 1765) ) Descriptions of Several
        Different Farms.
14) 1767-68 Copy of Journal September 1767 - January 1768 -
    Burrell.
15) Rental 1772 - 1780.

16) Rentals and other documents relating to the following
    estates or plans have been examined:
    Birkhill Estate, Lesmahagow.
    The Ross, Hamilton.
    Dalziell Estate, Motherwell.
    Myvet, New Monkland.

17) Process of Division of the Run-rigg Lands and Commonty of
    the Ten Pound Land of Kirtoun of Douglas, 1779. Court
    of Session Records, Register House.

18) Advertisement of farms to be let on Douglas Estate 1811,
    with particulars of tenants, acreage, and condition of the
    farmland.
<table>
<thead>
<tr>
<th>Estate</th>
<th>Parish</th>
<th>Plan</th>
<th>Surveyor</th>
<th>Year</th>
<th>% Enclosed</th>
<th>Interest Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hamilton and Avondale</td>
<td>Drumclog and Snabb</td>
<td>William Douglas?</td>
<td>c1770</td>
<td>1</td>
<td>(Yards) B+</td>
<td></td>
</tr>
<tr>
<td>2 Kinneil</td>
<td>Farm of Threestones</td>
<td>William Douglas</td>
<td>c1770</td>
<td>3</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>3 Estates Ltd. Bothwell</td>
<td>The Park of Bothwell and</td>
<td>William Douglas</td>
<td>c1770</td>
<td>0</td>
<td>B+</td>
<td></td>
</tr>
<tr>
<td>(Duke of Hamilton)</td>
<td>Meadows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Hamilton Cambuslang</td>
<td>West Greenlees and</td>
<td>William Douglas</td>
<td>1765</td>
<td>2</td>
<td>B+</td>
<td></td>
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<tr>
<td></td>
<td>Turnlaw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Hamilton</td>
<td>West Greenlees</td>
<td>?</td>
<td>1770-80</td>
<td></td>
<td>Early stage</td>
<td>B</td>
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<td></td>
<td></td>
<td></td>
<td>of primary</td>
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<td></td>
<td></td>
<td></td>
<td>enclosure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Dalserf</td>
<td>Drumsargate Barony</td>
<td>R. Bauchop</td>
<td>1817</td>
<td>100</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Book of Plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R. Russell, &amp; James</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greenshields</td>
<td></td>
<td></td>
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<tr>
<td>7 Dalserf</td>
<td>Dalserf Barony</td>
<td>William Douglas</td>
<td>c1770</td>
<td>1</td>
<td>(Yards) B+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part of Dalserf Barony</td>
<td>William Douglas</td>
<td>c1770</td>
<td>2</td>
<td>(Yards &amp; A-</td>
<td>orchards</td>
</tr>
<tr>
<td>8 Dalserf</td>
<td>Easter and Wester Highleas</td>
<td>William Douglas</td>
<td>c1770</td>
<td>1</td>
<td>(Yards) A-</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>9 Dalserf Stonehouse</td>
<td>Dalserf Farms</td>
<td>William Douglas</td>
<td>c1770</td>
<td>1</td>
<td>(Yards) B+</td>
<td></td>
</tr>
<tr>
<td>10 Dalserf and Hamilton</td>
<td>Allanton and Merryton</td>
<td>William Douglas?</td>
<td>c1770</td>
<td>2</td>
<td>(Yards) B+</td>
<td></td>
</tr>
<tr>
<td>11 Hamilton East Kilbride</td>
<td>Alterations and Additions</td>
<td>Alex. Edward</td>
<td>1708</td>
<td>Policies</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>to the Gardens, Courts,</td>
<td></td>
<td></td>
<td>enclosed &amp;</td>
<td>regularly</td>
<td>laid out.</td>
</tr>
<tr>
<td></td>
<td>Avenues, Plantations and</td>
<td></td>
<td></td>
<td>regularly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enclosures of Hamilton.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Hamilton</td>
<td>Hamilton Haugh and</td>
<td>?</td>
<td>c90</td>
<td>100</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part of the Town</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Hamilton</td>
<td>The Low Parks of Hamilton</td>
<td>William Douglas</td>
<td>c1772</td>
<td></td>
<td>B+</td>
<td></td>
</tr>
<tr>
<td>14 A Plan of Hamilton</td>
<td>Thomas Burns</td>
<td>1781</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- B+ indicates a higher level of enclosure or interest.
- B indicates an intermediate level of enclosure or interest.
- A indicates a lower level of enclosure or interest.
- ? indicates uncertainty or information missing.
- 100 indicates a complete enclosure or interest.

**Additional Details:**
- The Plan of Hamilton Haugh and Part of the Town was completed in 1781.
- The Low Parks of Hamilton were surveyed by William Douglas in c1772.
- The enclosure of the Low Parks of Hamilton is apparently incomplete or partial.
17 Hamilton New Road of Hamilton New Bridge to head of Muir Wynd.
Properties purchased by the Marquess of Douglas at Hamilton Proposed to be Exchanged or Entailed.
The Town of Hamilton J. Wood
1820
18 
19
19
20
21
22
23
23
24
25
26
27
28
29
29
30
31
1807 100 of what is shown
1814 Fixed rigs or feas
1819 100 presumably
1838 Unenclosed lots
1850 Apparently
unenclosed.
c1770 30 A-
c1770 90 B+
176? 1 B
1765-70 (Yards) A-
c1770 Yards & one or two small feus.
c1770 1 Orchards
1770 1 Yards
1770 or 0 earlier
1770 10 B
1770 0 B-
<p>| 32 | Shotts | Plans and Measurements of the Barony of Bothwell-Muir. Parish of Shotts. | Thos. Johnston | 1813 | 20 or less | A- |
| 33 Dalziel | Dalziel | Dalzell Estate The Entailed Part of the Estate of Dalzell. | William Douglas | 1774 | 60 | B+ |
| 34 | | | J. Hutton and Son. | 1824 | 100 | B+ |
| 35 Jerviston | Bothwell and Dalziel | Jerviston. | John Wilson | 1792 | 100 | B- |
| 36 Wood Hall | Bothwell | Legbranock | William Johnston | Shortly after 1809 | 100 | B- |
| 38 Coltness | Cambusnethan | Overton Barony and Part of the Estate of Coltness. | John Leslie | 1830 | based on plan of 1811 | B |
| 40 | Carnwath | Eastsidewood Sheep Walk of Wilsontown. | Robt. Johnstoun | 1755 | 0 | A- |
| 41 Wilsontown | | | Thos. Bauchop | 1811 | Parks in process of enclosure. | B |
| 42 Halcraig | Carluke | Lands of Halcraig | ? | 1766 | 100 | B+ |
| 43 Mauldslie | | The Estate of Mauldslie. | R. Russell | 1835 | 100 | C+ |
| 44 Covington | Covington | The Barony of Covington. | Jas. Stevenson | 1770 | 5 | A- |
| 45 Glespin | Crawfordjohn | The Estate of Glespin. | ? | 1801 | 100 | B |
| 46 | | Glespen Mains | Jas. Whiteford | 1801 | 100 | B |
| 47 The Ross | Hamilton | The Ross | William Douglas | 1755 | 100 almost | A- |
| 48 Eddlewood | | Lands of Eddlewood | G. Galt | 1829 | 100 | C+ |
| 49 Earnock Muir | | Lands of Earnock Muir. | G. Galt | 1826 | 90-100 | C+ |
| 50 Birkhill | Leamshagow | Birkhill | Jas. Whiteford | 1800 | 20 | B+ |</p>
<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
<th>Owner</th>
<th>Year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>Lesmahagow The Commony of Brokencross As divided and set off.</td>
<td>Jas. Whiteford</td>
<td>1808</td>
<td>0</td>
</tr>
<tr>
<td>52</td>
<td>&quot; Dunske Common Roads in the Parish of Lesmahagow.</td>
<td>R.T. McGhie</td>
<td>1843</td>
<td>2</td>
</tr>
<tr>
<td>53</td>
<td>&quot; Roads in the Parish of Lesmahagow.</td>
<td>Peter Macquisten</td>
<td>1826</td>
<td>?</td>
</tr>
<tr>
<td>54</td>
<td>Myvet ? New Monkland Ground of Myvet in dispute.</td>
<td>William Douglas</td>
<td>1777</td>
<td>0</td>
</tr>
<tr>
<td>55</td>
<td>&quot; Lands of South Myvet.</td>
<td>William Shearer</td>
<td>1777</td>
<td>0</td>
</tr>
<tr>
<td>56</td>
<td>? Shotts March Dispute betwixt Easter and Wester Moffats.</td>
<td>Wm. Gray</td>
<td>1771</td>
<td>0</td>
</tr>
<tr>
<td>57</td>
<td>&quot; Road Sketch-Lands of Papparthill etc.</td>
<td>R. Bauchop and</td>
<td>1804</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Roads of some interest.</td>
<td>John Bisset</td>
<td>1803</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Douglas Douglas The Ten Pound Land of the Kirktoun of Douglas. Preparatory to the Division.</td>
<td>Charles Renton</td>
<td>1777</td>
<td>5</td>
</tr>
<tr>
<td>59</td>
<td>&quot; The Ten Pound Land of the Kirktoun of Douglas. Divided as now.</td>
<td>Charles Renton</td>
<td>1778</td>
<td>At least 10</td>
</tr>
<tr>
<td>60</td>
<td>Douglas Carmichael Lesmahagow Wiston and Robertson Muirkirk.</td>
<td>William Ross</td>
<td>1769</td>
<td>1</td>
</tr>
<tr>
<td>61</td>
<td>Douglas Carmichael Lesmahagow Wiston and Robertson Muirkirk.</td>
<td>Thomas White</td>
<td>1770</td>
<td>Projected</td>
</tr>
<tr>
<td>Page</td>
<td>Description</td>
<td>Owner</td>
<td>Year</td>
<td>Value</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>63</td>
<td>Douglas The Parks and Plantations about Douglas Castle and Castle Mains.</td>
<td>Wm. Johnston</td>
<td>1824</td>
<td>100</td>
</tr>
<tr>
<td>64</td>
<td>Bothwell and Bothwell Policy Blantyre Crawford and Estates of Crawfordjohn. Colebrooke.</td>
<td>William Douglas</td>
<td>1787</td>
<td>100</td>
</tr>
<tr>
<td>66</td>
<td>Lesmahagow Brokencross Common. Douglas</td>
<td>Jas. Whiteford</td>
<td>1808</td>
<td>0</td>
</tr>
<tr>
<td>67</td>
<td>Raw. Douglas</td>
<td>Jas. Whiteford</td>
<td>1809</td>
<td>5</td>
</tr>
<tr>
<td>68</td>
<td>Uddington. Douglas</td>
<td>Jas. Whiteford</td>
<td>1804</td>
<td>70</td>
</tr>
<tr>
<td>69</td>
<td>Dunsyston. Shotts</td>
<td>Jas. Whiteford</td>
<td>1799</td>
<td>40</td>
</tr>
<tr>
<td>70</td>
<td>Lands of Bellston. Carluke</td>
<td>Charles Ross</td>
<td>c1770</td>
<td>0</td>
</tr>
<tr>
<td>71</td>
<td>Belston Farm. Carluke</td>
<td>Jas. Whiteford</td>
<td>1814</td>
<td>20</td>
</tr>
<tr>
<td>72</td>
<td>Belston Mains. Carluke</td>
<td>Jas. Whiteford</td>
<td>1813</td>
<td>45</td>
</tr>
</tbody>
</table>
Documentary Sources  Volume Two

Penicuik Estate - Appendix A and B.

1) **Manuscript Report** entitled "Scheme of Improvements for the several Rooms of the Baronie of Penicuik & other pieces of ground own in my possession" Sir John Clerk, 1741.
   (Estate Office, Penicuik)

2) **Report regarding the Estate of Penicuik** 1797. Alex. Low.
   (Register House)

3) **Rentals.** Most of these comprise annotated volumes.
   1654, 1684 and 1694, contained in one volume. (Register House)
   1731 (Register House) This partially examined, because the volume is in bad condition.
   1743 (Register House)
   1751-69 (Register House)
   1762-84 (Register House)
   1812-1818 (Estate Office)
   1840 (Estate Office)
   1890, 1913, 1950 (Estate Office)

4) **Twenty-seven Estate Plans.** 1796. John Ainslie, Surveyor.
   (Estate Office)

5) **Kirk Session Records.** Penicuik Parish Church.

6) **Document** in possession of the Earl of Wemyss, relating to the lands of Linton, as they came into possession of the family in 1810.
Contemporary Sources (Arranged Chronologically) Chapters One & Two.


Mackintosh of Borlum, W. "An Essay on Ways and Means for Inclosing, Fallowing, Planting, etc. Scotland; And that in Sixteen Years at farthest." by a Lover of his country. (Edinburgh, 1729).


Topham, E. 'Letters from Edinburgh, written in the years 1774 and 1775.' (1776 London).


Roger, Rev. Mr. "General View of the Agriculture of Angus or Forfar." (1794).

Books written after 1850.

Ramsey, A. 'History of the Highland and Agricultural Society of Scotland.' (Blackwood, 1879).


Argyll, 8th Duke of. 'Scotland As it Was and As it is', (1887, Second Edition).

Handley, James R. 'Scottish Farming in the Eighteenth Century' (Faber and Faber, 1953).
1. The following parish accounts of the Old Statistical Account:
   Aberlemno, Airlie, Alyth, Auchterhouse, Barrie, Blairgowrie, Brechin, Carmyllie, Clunie, Cortachy and Glova, Coupar, Dundee, Edzell, Farnell, Fettercairn, Forfar, Glamis, Guthrie, Kettins, Kingoldrum, Kinnettles, Kinnell, Kirkden, Kirriemuir, Lethnot and Navar, Logie and Pert, Longforgan, Maryton, Meigle, Menmuir, Rescobie, St. Vigeans, and Stracathro.


3. A general View of the Agriculture of Kincardineshire or The Mearns. George Robertson. London (Suchanan, Montrose printer), 1813.

4. General View of the Agriculture of Angus, or Forfar. Rev. Mr. Roger, Board of Agriculture, Edinburgh, 1794.


Clydesdale - Chapter IV

1) The following parish accounts of the Old Statistical Account:
   Blantyre, Cambuslang, Dalserf, Dalziel, Glassford, Hamilton, Lanark, Lesmahagow, Libberton, New Monkland, Shotts, Stonehouse.

2) Naismith, John. General View of the Agriculture of the County of Clydesdale; with observations on the means of its improvement .... Glasgow, 1798.


4) Aiton, William. An Inquiry into the Pedigree, Descent, and Public Transactions of the Chiefs of the Hamilton Family, and showing How they acquired their estates. 1827. (Hamilton Municipal Reference Library)

5) Numerous articles, and a book entitled Municipal Hamilton, written in the early years of this century by Alfred Miller, a local lawyer and banker, whose scholarship is held in considerable esteem. Hamilton Reference Library.
Bibliography

Penicuik Estate. Appendix A and B


Had space permitted, there should have been an additional chapter devoted to discussion of features which have arisen during this enquiry and exposition, viewed in the light of contemporary knowledge. The writer regrets that this has not been possible, and makes grateful acknowledgement to the following authors:


The Role of the Township in the Rural Settlement of Scotland .... Paper read at the British Association Meeting, Edinburgh, 1951.


Handley, James E. Scottish Farming in the Eighteenth Century. (Faber and Faber, 1953)


Innes, Cosmo. Lectures on Scotch Legal Antiquities. Edinburgh 1872.