The Significance of Scottish
ESTATE PLANS AND ASSOCIATED DOCUMENTS

SOME LOCAL EXAMPLES

Betty M. W. Third*

ESTATE PLANS AND THE CHANGING LANDSCAPE

During the eventful years of the Agricultural Revolution, roughly from 1720 to 1810, the geographical appearance of the Scottish countryside was remodelled to conform to new theories of husbandry and to the new conception of commercial rather than subsistence farming. To enable the lairds to plan the re-organisation and improvement of their lands as many independent surveys were undertaken as there were estates. So complicated was the existing system of land tenure and so radical were the changes to be made that it was customary to have at least two surveys, the first resulting in plans showing the old unimproved terrain and the second the laying-out with drawing-office precision of field-grids, new roads and other features. Thus posterity was provided with a unique, detailed and remarkably accurate representation of a landscape that had changed little in its characteristic features for centuries. Of great interest also are the plans showing the shaping, often by a process of trial and error, of the new landscape which remains fundamentally unchanged to-day.

Before enclosure could proceed it was frequently necessary to consolidate and redistribute a multitude of small parcels of land lying scattered throughout the farmland and constituting the intermingled possessions of joint tenants. This was the legacy of the old outmoded runrig system of co-operative husbandry whose original function had been to ensure fair distribution of land among farm co-tenants by wide distribution and periodic re-allocation of possessions. By the seventeenth

* Lecturer in Geography, Aberdeen Training College; formerly, Assistant in Geography, Edinburgh.

century possessions were almost invariably held in fixed tenure and the pattern had frozen into one of considerable inconvenience. Estate plans were drawn therefore on a scale large enough to show possessions that frequently amounted to fractions of an acre, and gave exact acreages in place of the old estimated and often erroneous measurements. The great majority of the plans are of individual farms or groups of farms and although they vary in scale from 2 to 8 Scots chains to an inch the most usual scale employed was 4 Scots chains to an inch or approximately 18 inches to an imperial mile.* Other plans include those of entire estates, of lairds' policies, and of commonties, which were subjects of considerable interest at the time.

THE PLANS: APPEARANCE AND CONTENT

Enclosure was a straightforward process in Scotland uncomplicated by compulsory legislation and the personal element was therefore conspicuous in the procedure adopted. The estate plans conform to no stereotyped pattern and vary greatly both in appearance and content. The most outstanding plans are those found in bound volumes bearing the name of an eminent surveyor and usually in a good state of preservation. Such plans, expertly executed in colour and print are masterpieces of graphic representation, meticulous precision and of artistic effect. Plate 1 is a drawing made from such a volume produced by John Ainslie the celebrated surveyor. Most of the loose plans are backed with linen, bound and of workmanlike appearance while even the small proportion of strictly utilitarian plans produced on flimsy paper are usually reliable as regards detail and proportion. These, the least prepossessing of the plans, commonly offer the minimum of information with annotations in scrawling longhand, and may lack title, date or scale. In size also there is great variety. Some plans measure less than a foot square and others approach the unwieldy dimensions of the mammoth plan of Douglas Estate in Lanarkshire which measures 15 feet by 6 feet 6 inches.

The most detailed plans show each arable field with its name and the individual rigs with acreages and names of possessors marked. Meadow, rough pasture and moorland are indicated and often in symbolic form each haystack and lone

* Scots areal and linear measurement was almost invariably used throughout the eighteenth century. An acre Scots was equal to 1·26 imperial acres. A Scots chain was equal to 1·12 imperial chains.

tree is noted. Each cottage with its toft appears in the farm hamlet or "fermtoun" and with the addition of the kirk or mill in the kirkton and millton. Roads, paths, antiquities, limekilns, quarries and other features are marked. Some plans show estates at an intermediate stage of enclosure, with the laird's policies laid out and the rest of the estate either unimproved or in early stages of improvement (see figs. 7 and 8). Another type of plan usually of more than average interest shows the enclosure grid superimposed on terrain which is manifestly in an unimproved and otherwise unaltered condition.

There must be many thousands of estate plans still in existence in the keeping of lairds, their factors or agents, besides those preserved in Register House and in libraries. Nearly four hundred of these have been catalogued under the auspices of the Royal Scottish Geographical Society yet the work can scarcely be said to have begun. However the study of even this small proportion of the plans has yielded a tremendous amount of information.

SIGNIFICANCE OF THE PLANS AND ASSOCIATED DOCUMENTS

The dated plans alone provide a dependable means of tracing the spread of the enclosure movement in Scotland. Although the earliest plans were being produced about 1720 the lands concerned were usually small well-situated estates whose lairds had achieved a certain prosperity either due to the inherent fertility of their lands or to a fortune made in the cities or industrial areas. It was not until the decade commencing in 1765 that the peak period of production of plans was reached. At that time the general enclosure of the great estates began, partly because the foremost landowners had not until then acquired sufficient capital to enable them to undertake large-scale improvements and partly because their labours were facilitated by an act passed in 1770 to encourage the improvement of land held under settlements of strict entail. The poorer and more marginal lands were enclosed with great difficulty at the end of the eighteenth and the beginning of the nineteenth centuries. The main factors in deciding the development of the enclosure movement appear to have been highly local and to have consisted of relative fertility of land, available capital, labour supply and distance from a market.

When estate plans are studied in conjunction with the associated rentals and reports of advisers, considerable insight

is gained into the fundamental causes underlying the continuous process of change in the social and economic structure of the rural community. In particular it is possible to study the later stages in the evolution of the runrig system, because when the impact of the Agricultural Revolution was felt, estates even in the same district were commonly at different stages of development. Thus one may observe the growing disparity in status between people who were once co-tenants on equal footing, and the appearance of the independent farmer who eventually arrived at sole possession of his farm. This development was reflected on the ground in the gradual consolidation of scattered possessions and the combining or splitting of farms.

The plans of the unimproved landscape reveal the adaptations of cultivated land and of the old pattern of settlements and roads to the characteristically undulating terrain whose constant variations in soil texture and drainage, more apparent at that time, were due largely to the effects of the last ice age. Furthermore, settlement types and sites may be classified, the actual distribution of population and extent of cultivated land determined, and the characteristic features of the local unit based on subsistence economy differentiated from the later re-organisation based on a broader regional economy.

The Agricultural Revolution for all its planning was a hasty introduction of something new-born of fresh and exuberant ideas and theories. It was inevitable that improvements should be made by a process of trial and error although the Edinburgh Society of Improvers and the writers of the numerous contemporary treatises on the subject did their best to give detailed guidance on every conceivable topic. The effects of their teachings are apparent in the designs for improvement, down to such details as the approved rounding-off of fields with triangular patches of trees at the corners. Even the authorities sometimes lacked sufficient practical experience and mistakes were made by lairds who tried to adopt fashionable but inappropriate methods. For example, the first of two consecutive farm plans may show the adoption of a grid of small enclosures modelled on the type favoured at the time in southern England, while the later plan shows the pattern considerably modified or even superseded by an arrangement of large fields that was better suited to the type of husbandry practised, or to the Scottish terrain.

Estate documents provide the most reliable means of determining the actual situation with regard to evictions and the

extent to which each laird was moved by the desire for greater financial reward. Plans showing the lines of projected enclosures laid out without regard to the vagaries of local topography and passing through the very cottages and yards of fermtouns and crofts, give the impression of what was often in effect an uncompromising attitude. The sweeping away of old clustered hamlets and their replacement by new steadings more conveniently situated by the roadside was a commonplace occurrence, but may be attributed as much to the action of influential factors and advisers and to the system of rouping farms to the highest bidders as to any deliberate intent on the part of the lairds. The lairds varied greatly in their attitude towards their tenants. It will be seen later, for example, that whereas the laird of Penicuik considered it worthwhile to attract smallholders to his lands and to foster the development of Penicuik, another laird took steps to obliterate the village of Dalmahoy. The surveyors were influential people who were in many cases entirely responsible for the ambitious designs for the enlargement and embellishment of gentlemen's policies at the expense of former farm land. Doubtless some of the lairds who ruined themselves at this time regretted listening to their grandiose notions.

SELECTED EXAMPLES OF SCOTTISH ESTATE PLANS

The changing geography of the Scottish landscape, resulting from enclosure, could only be depicted after an exhaustive study of plans. The stage for this has not been reached. In the meantime much can be done through the study of plans which are significant for their region. The samples chosen for this paper are mainly for the Edinburgh area, but they do represent, in some respects, the general trends and problems of the times. The plan of Carsewell gives some impression of conditions prevailing in the more inhospitable or backward areas, but none of the plans shows the excessive fragmentation of possessions that was fairly common in other parts of Scotland during the eighteenth century.

Newton (1754 *and* 1756) *and Carsewell* (1796)

The plans showing the farms of Newton and Carsewell, which are situated some ten miles apart in the basin of the Midlothian Esk, afford an excellent study in contrasted development (see figs. 1, 2 and 3). Newton was enclosed with lightning rapidity

during the 1750's whereas Carsewell was still unenclosed in 1796 despite the admirable effort made by the lairds of the estate, successive Clerks of Penicuik, from the early part of the century. The cause of the relatively backward condition of the estate was therefore fundamentally geographical.

Carsewell Farm lies at the foot of the Pentland Hills due west of Penicuik and at an elevation of 800 to 900 feet. Its situation on the high moorland surface which fringes our central lowlands and which still has more than its share of moss and bog, places it in the category of marginal or near-marginal land. Spreads of glacial sands and gravels forming a series of miniature hills, diversify the sloping surface of the farm. The hollows, or "howes", before drainage were persistent stretches of peat bog and rough pasture, doubtless resembling the present condition of nearby Auchencorth Moss. A rainfall heavier than that of the adjacent lowlands and the effect of strong winds on the upland doubtless contributed towards the discouraging nature of the farm. Were it not for present government encouragement Carsewell would to-day be a predominantly pastoral farm.

Newton on the other hand exhibited even in 1754 the characteristics of a prosperous lowland farm. This farm, situated about a mile and a half from Dalkeith and within sight of its spires, adjoins the River Esk in its lower reaches. The farmland, standing at just over 100 feet, slopes gently and smoothly towards the Esk: in 1754 it was covered with a close patchwork of arable fields and quite free of useless ill-drained land. Doubtless the situation of the farm in a populous district and near urban markets encouraged the full development of its resources and moreover the wealth accruing from the local coalmining would facilitate its rapid enclosure. The intrepid improver, Baron Sir John Clerk, struggling with the meagre returns from his Penicuik estate, recognised the value of lands near a royal burgh or near coal, where, he declared "small Tenants pay their rents best".[1] Coal was mined on Penicuik Estate and even on Carsewell Farm but in negligible quantities when compared with production from the district around Newton.

ENCLOSURE AT NEWTON

Prior to enclosure, Newton (see fig. 1) was a considerable farm settlement approximating more closely to a village than to the characteristic lowland farm hamlet but of a type that was

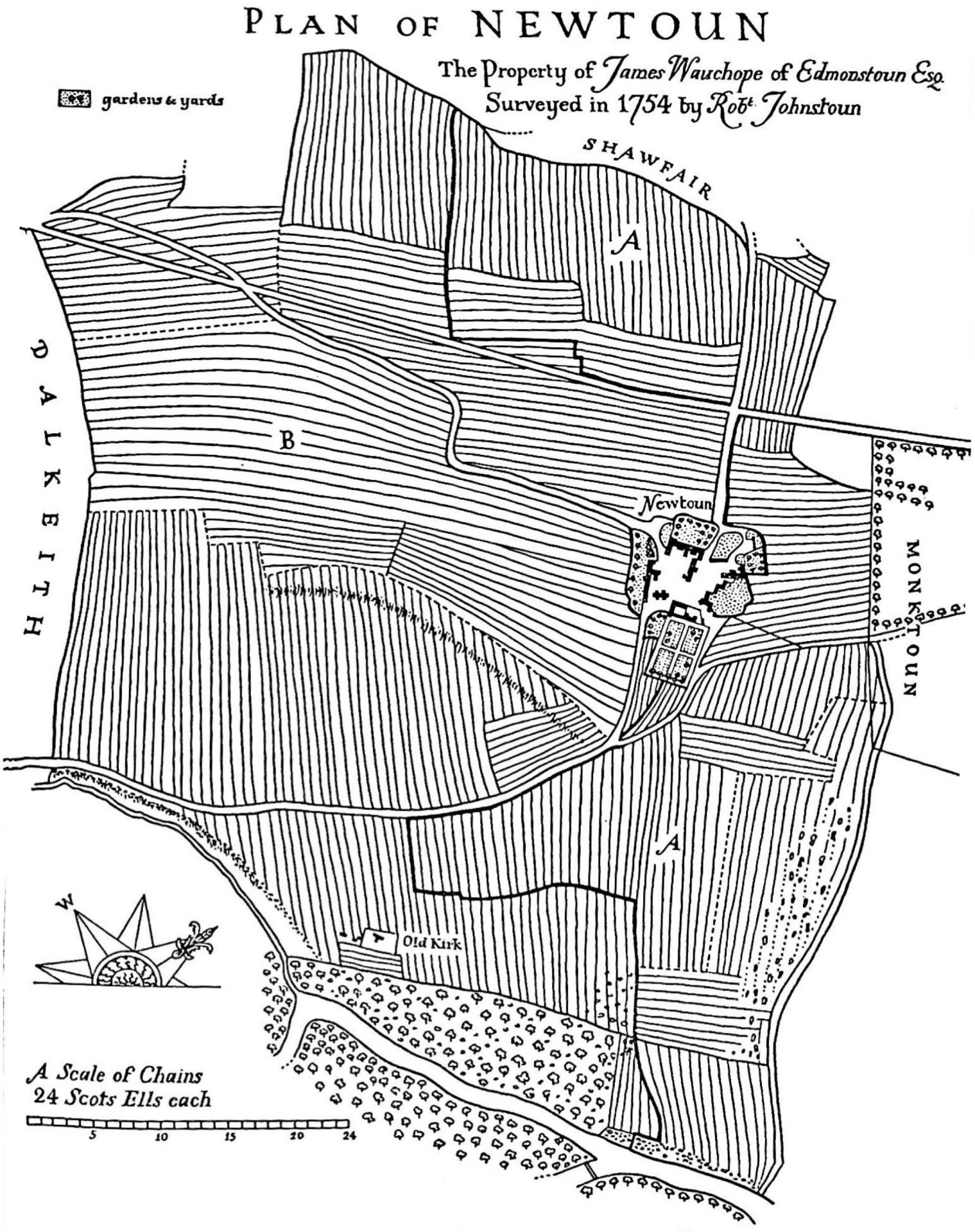

PLAN OF NEWTOUN
The Property of James Wauchope of Edmonstoun Esq.
Surveyed in 1754 by Robt. Johnstoun
gardens & yards
SHAWFAIR
A
B
DALKEITH
Newtoun
MONKTOUN
A
Old Kirk
W
A Scale of Chains
24 Scots Ells each
5
10
15
20
24

FIG. 1

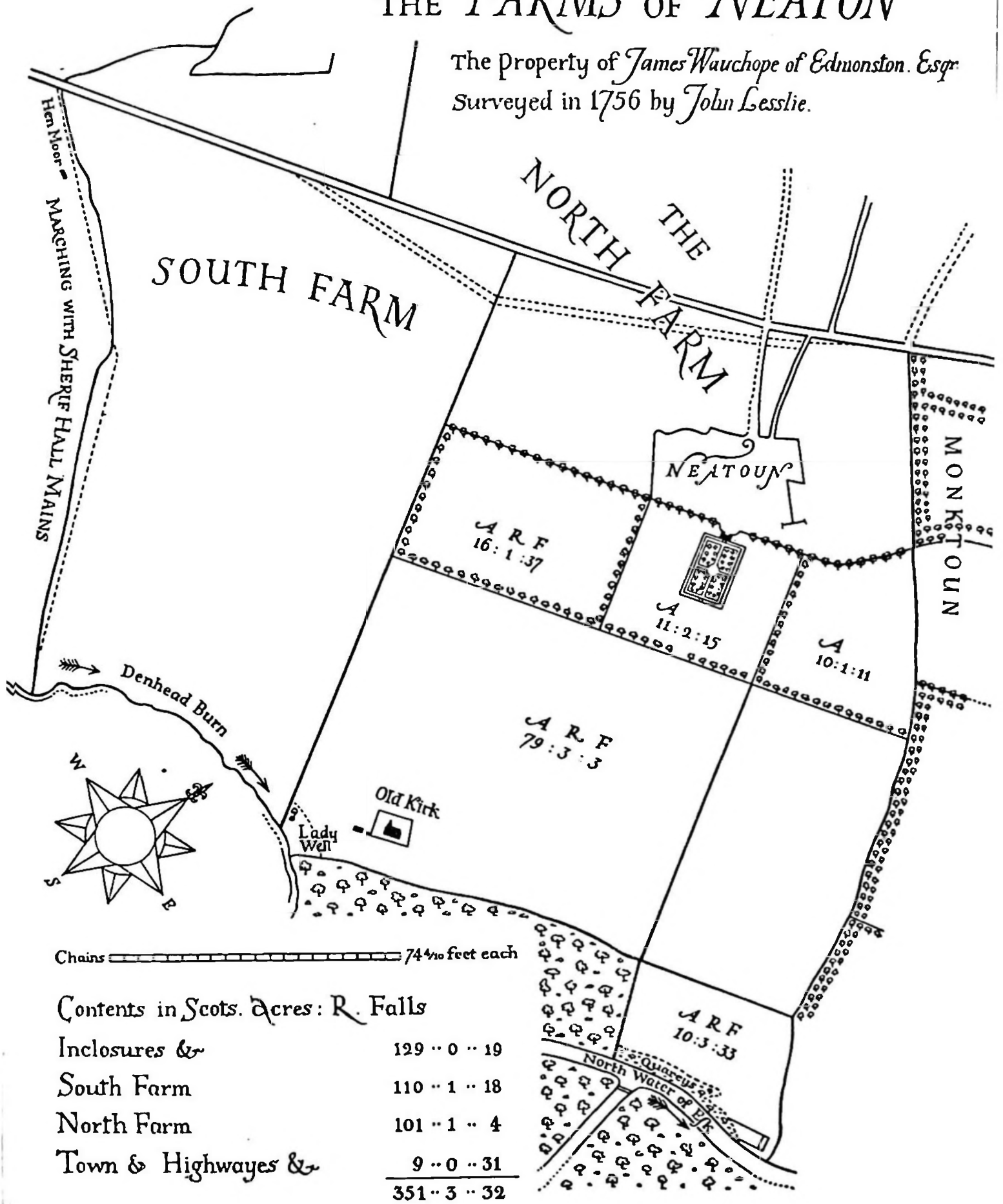
common in the Lothian lowlands. The four principal tenants' their subtenants and others of the community had their houses and tofts laid out on three sides of a square in front of the old mansion house which faced towards the formal gardens attached to it. An irregular boundary running through the village separated the east part of the farm, amounting to 122 acres, from the west part which was roughly twice as large. When a farm had a frontage on a river it was a common practice to split it when so desired into strips lying at right angles to the river so that each section should have a share of the fertile haugh land. The division of this farm and the allocation of possessions in it present an interesting line of enquiry. A minute of contract dated 1698 concerns the infefting of Sir John Wauchope of Edmonstoun in "two Roumes of the half lands of Naetoun" and a crown charter dated 1715 shows the two portions to have been in the easter half of Newton.[2] By 1754 the east farm of Newton had come into the possession of one tenant and was considerably less than half of the whole farm, the western part being in possession of three tenants. The gradual acquisition of an increasing share in farmland by the more prosperous tenant farmers was a common feature of the times, especially in farms of a rewarding nature. The three tenants of West Newton held unequal possessions distributed in small parcels throughout the various fields.[3]

The key to the 1754 plan shows that both farms had an unusually high proportion of infield. This was the land kept almost continuously under crops by the liberal application of manure, in distinction from the outfield which usually lay at some distance from the steading and received no manure; sections of the outfield were cultivated until they would yield no more and then were allowed to revert for some years to their natural condition. The fields of Newton were larger and more regular and the ridges or rigs longer than was common in less favoured districts. The direction merely of the rigs is shown and these, as usual, tended to follow the direction of the slope.

The line of the new road between Dalkeith and Musselburgh which was constructed in 1755 was added to the 1754 plan and the initial outlining of proposed enclosures is also shown. Newton House was a subsidiary residence and no policies were laid out but, as was customary, the earliest enclosures were made close to it and designed to correspond with the alignment of the mansion. By 1755 the three enclosures shown on the

THE FARMS OF NEATON

The Property of James Wauchope of Edmonston. Esqr
Surveyed in 1756 by John Lesslie.



Contents in Scots. Acres: R. Falls

Inclosures &	129 .. 0 .. 19
South Farm	110 .. 1 .. 18
North Farm	101 .. 1 .. 4
Town & Highwayes &	9 .. 0 .. 31
	351 .. 3 .. 32

FIG. 2

1756 plan and the enclosure of the 10-acre field by the riverside had been completed (see fig. 2). In the following year the large field of 79 acres was enclosed making a total for the two years of 129 acres enclosed at the cost of £794 Scots or £66 sterling. A statement by John Leslie the surveyor gives particulars of the share borne by each tenant in this quite considerable labour and expense.[4] The statement for David Brown, one of the three tenants of the West farm reads as follows (see table below). The cost of enclosure per acre would vary with

Inclosed first Year re Crop 1755.

Acres	Roods	Falls	£. s. d.		£. s. d.	£. s. d.
1	3	24	at 10 — —	pr Acre	19 — —	Scotts
1	1	12	at 7	pr A.	9 5 6	
2	0	31	at 6	Do.	13 3 3	
0	0	34	at 4 10 0	Do.	0 19 1½	
5	2	21				42 7 10½

The Seconde Year.

A	R	F	£. s. d.		£. s. d.	£. s. d.	
1	1	14	at 7 — —	pr Acre	9 7 4	Scotts	
11	0	25	at 6 — —	Do.	66 18 10		
7	1	21	at 5 10 —	Do.	40 12 —		
1	0	1	at 4 10 —	Do.	4 10 6	6 2 8	omitted
20	3	21				121 8 8	

the position of each holding in the field and the type of enclosure to be made.

The Modern Scene: The old mansion still stands in a cluster of trees with a group of farm buildings but all that remains of Newton village is some remnants of cottage walls and door lintels obscured by undergrowth. Part of the high enclosure walls near the mansion have been left but the fields are larger than those originally designed and the farm has a pleasant

PLATE I

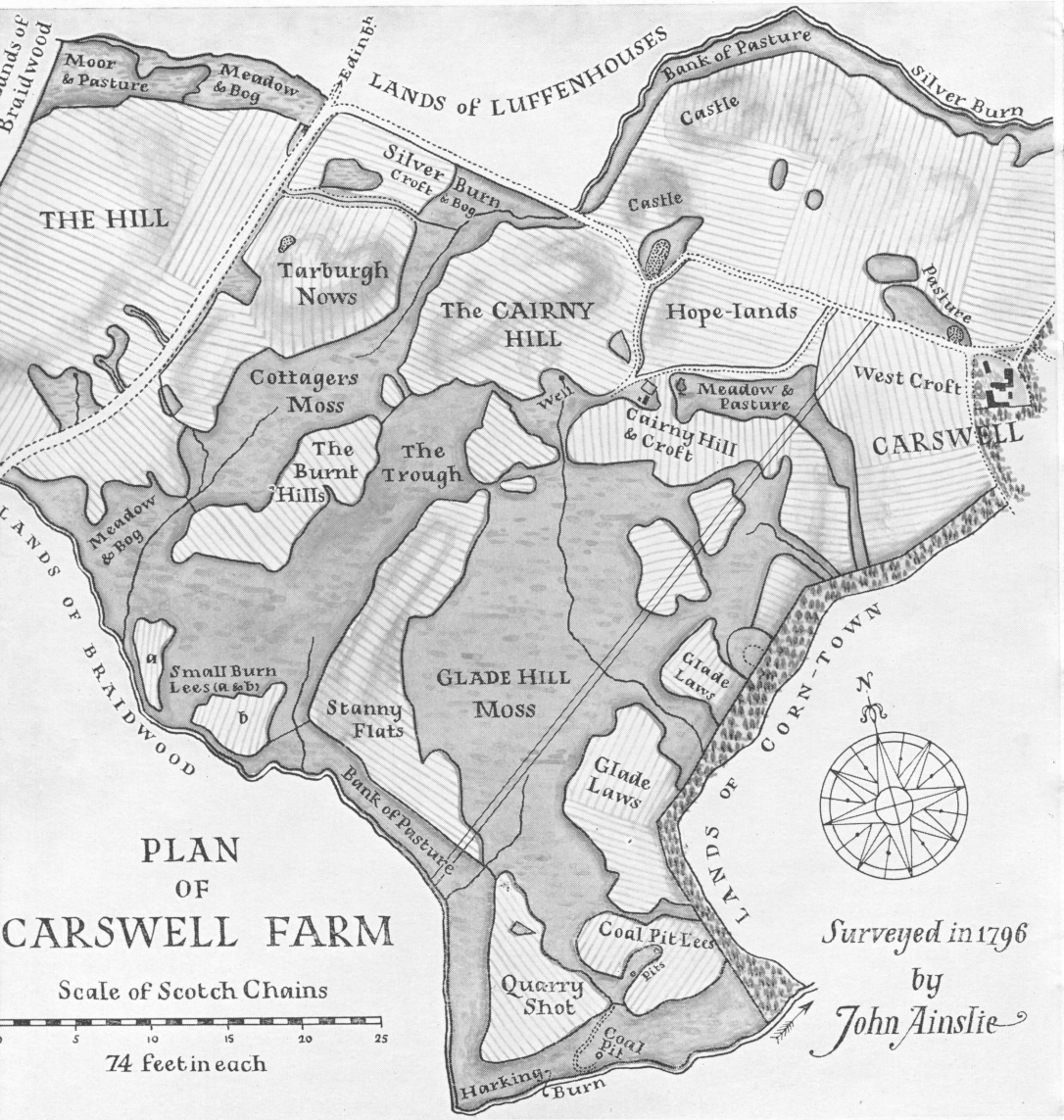

Moor & Pasture
Meadow & Bog
Edingh
LANDS of LUFFENHOUSES
Bank of Pasture
Silver Burn
Castle
THE HILL
Silver Croft
Burn & Bog
Castle
Tarburgh Nows
The CAIRNY HILL
Hope-lands
Pasture
Cottagers Moss
Well
Meadow & Pasture
West Croft
Cairny Hill & Croft
CARSWELL
The Burnt Hills
The Trough
Meadow & Bog
LANDS of BRAIDWOOD
a
Small Burn Lees (a & b)
b
GLADE HILL Moss
Glade Laws
Stanny Flats
LANDS of CORN-TOWN
Glade Laws
Bank of Pasture
Coal Pit Lees
Pits
Quarry Shot
Coal Pit
Harking Burn
N
PLAN OF CARSWELL FARM
Scale of Scotch Chains
0 5 10 15 20 25
74 feet in each
Surveyed in 1796 by John Ainslie

FIG. 3

open aspect. It is now in one hand and boasts excellent crops of wheat, the land betraying no mark of its earlier condition save some vestiges of the old track to Dalkeith.

ENCLOSURE AT CARSEWELL

The colouring of this plan in the original adds to the pleasing effect and to the excellent representation of natural features and cultural detail (see fig. 3). The series of glacial ridges and hillocks is readily apparent as is also the correspondence of the irregular patches of arable land with them. Two of the most outstanding of these bear the local designation "Castle" which was applied to similar features on other plans of the estate. One of the "castles" is to-day a conspicuous tree-covered knoll. In 1796 these cultivated ridges stood like islands amidst troughs of peat bog and rough pasture or meadow which comprised nearly half of the total acreage of the farm.

Carsewell was manifestly in a backward condition in 1796 yet some improvement must have taken place during the preceding century to permit of the threefold increase in rent from £326 Scots (£27 sterling) in 1696 to £80 sterling in 1787. Sir John Clerk, Baron of the Court of Exchequer, who took the first arduous steps towards improving Penicuik Estate, has described the condition of Carsewell in his various reports and memoirs. He described "The Castles" as a fine dry piece of ground for sheep but evidently wanted to see the arable ground improved and extended.[5] He blamed the length of the fifty-six year tack his father had given to the tenant of the combined farms of Carsewell and Cairnyhill in 1709 for the complete neglect of enclosing and draining and insisted that his tenants should be obliged to enclose 20 acres of their lands yearly.[6] He wanted to see the crofts of Carsewell improved and for that purpose suggested digging about 60 yards of the surrounding flow moss and mixing it with lime to make "what we call Earthmiddings. Nothing wou'd be better mannure for the Croft ground." [7] Evidently ditching and hedging had been beyond the capacity of successive tenants but by 1796 the arable land was quite extensive for this type of farm and especially so on either side of the two roads.

The original settlement of Cairnyhill which was abandoned in 1709 stood in a sheltered hollow amidst some minor hillocks. The site in a patch of ill-drained pasture was in conformance with the common practice of considering the

convenience of the beasts rather than the comfort of the inhabitants. Carsewell steading was probably built during the early part of the eighteenth century on the convenient site at the edge of the policies and by the roadside. If Newton housed a larger community than is commonly associated with the runrig period, the single tenancy of Carsewell represents an equally marked departure from the co-operative fermtoun. Both examples serve to demonstrate the changes that came about as the runrig system broke down. (They also remind one of the dangers of generalisation.) It had been customary at Penicuik during the latter half of the seventeenth century, and perhaps before that, for large pastoral farms to be run by one or two tenants and Baron Sir John Clerk considered one tenant sufficient for the management of what he termed his wild sheep rooms. Nothing remains of Cairnyhill, but the tree marked on the 1796 plan close to the settlement is now a veteran of the fields and can be seen on the aerial photograph (see fig. 4).

The infield or "Croft" land of Carsewell, Cairnyhill and the smallholding of Silverburn can be seen close to the steadings while the common terms "Shot", "Lees" and "Flats" appearing on the outlying patches of cultivation show them to be sections of the outfield. The adaptation of rigs to the awkward configuration of a glacial knowe can be seen diagrammatically represented on the field called Tarburgh Nows, situated beside the Edinburgh-Biggar road. Although the mosses constituted the poorest type of pasture they provided a plentiful source of fuel supplementary to the output of coal from the pits shown on the plan: until 1765 the tenant of Carsewell was obliged to deliver thirty-eight loads of peat yearly to the laird as rent payment in kind. The traditional rights of the cottars of Silverburn over the Cottager's Moss are still remembered.

The Modern Scene: The aerial photograph shows a different Carsewell (see fig. 4).* Although patches of the farm still present drainage difficulties, the old spreads of bog have long since disappeared and streams have vanished into underground conduits. The banks of the larger streams are wooded. "The Cairny Hill" and "The Burnt Hills" are now masked by trees and the present Sir John Clerk shows by his progressive afforestation of the estate his agreement with his forefather the

* The road from Penicuik to Biggar which was sketched out on the 1796 plan can be seen crossing the photograph diagonally. Carsewell steading is close to it.

FIG. 4.—Aerial Photograph of Carsewell

Baron's belief that "Warmness and shelter at Pennicuik is chiefly what is wanted." It is interesting to discover that most of the fields retain the old names: there is the Castles field, Gladslaw field and the Troughmoss wood and field, but Cairny-hill has recently been renamed the Doctor's field in honour of a doctor who has built her home at the edge of it.

Dalmahoy (1749) *and Penicuik* (1796)

The condition of Dalmahoy and Penicuik villages in the late seventeenth century gave no apparent indication that within a hundred years the former would be in a moribund condition and the latter a pleasant and rapidly-growing town (see figs. 5 and 6). Of the two, one would have thought that Dalmahoy, lying only seven miles from Edinburgh and on the seaward side of the Pentland Hills was more likely to prosper than Penicuik, which at that time lay at some distance from the nearest main road and was altogether more remote. However, the favourable position of Dalmahoy was its undoing, because during the early decades of the eighteenth century when grass parks in the vicinity of Edinburgh could be let at a premium, the laird of Dalmahoy evidently could not resist the temptation to extend his parks at the expense of the village. On the other hand, Baron Sir John Clerk and his successors regarded a thriving industrial village as an asset: they did all that they could to foster the growth of Penicuik by introducing industries and making provision for the housing of a growing population.

The villages originally had certain features in common: both lay at the gates, so to speak, of the estate policies, both housed a fair number of tenant farmers and commanded extensive lands. The lands of Penicuik extended to over 500 Scots acres, while those of Dalmahoy, judged from the size of the infield or "Crofts" in 1749, must also have been considerable at one time. By the time that the plans were drawn, both villages had suffered the fate that commonly befell such extensive farms, of having sections of the outfield converted into independent farms by the laird. The farms of the Haggs and Newhouse whose steadings are shown on the Dalmahoy plan had almost certainly been in the possession of the Dalmahoy tenants at no remote period, indeed some of the Dalmahoy tenants still had holdings within these farms in 1749. The dispossessed tenants and subtenants of Penicuik could turn to

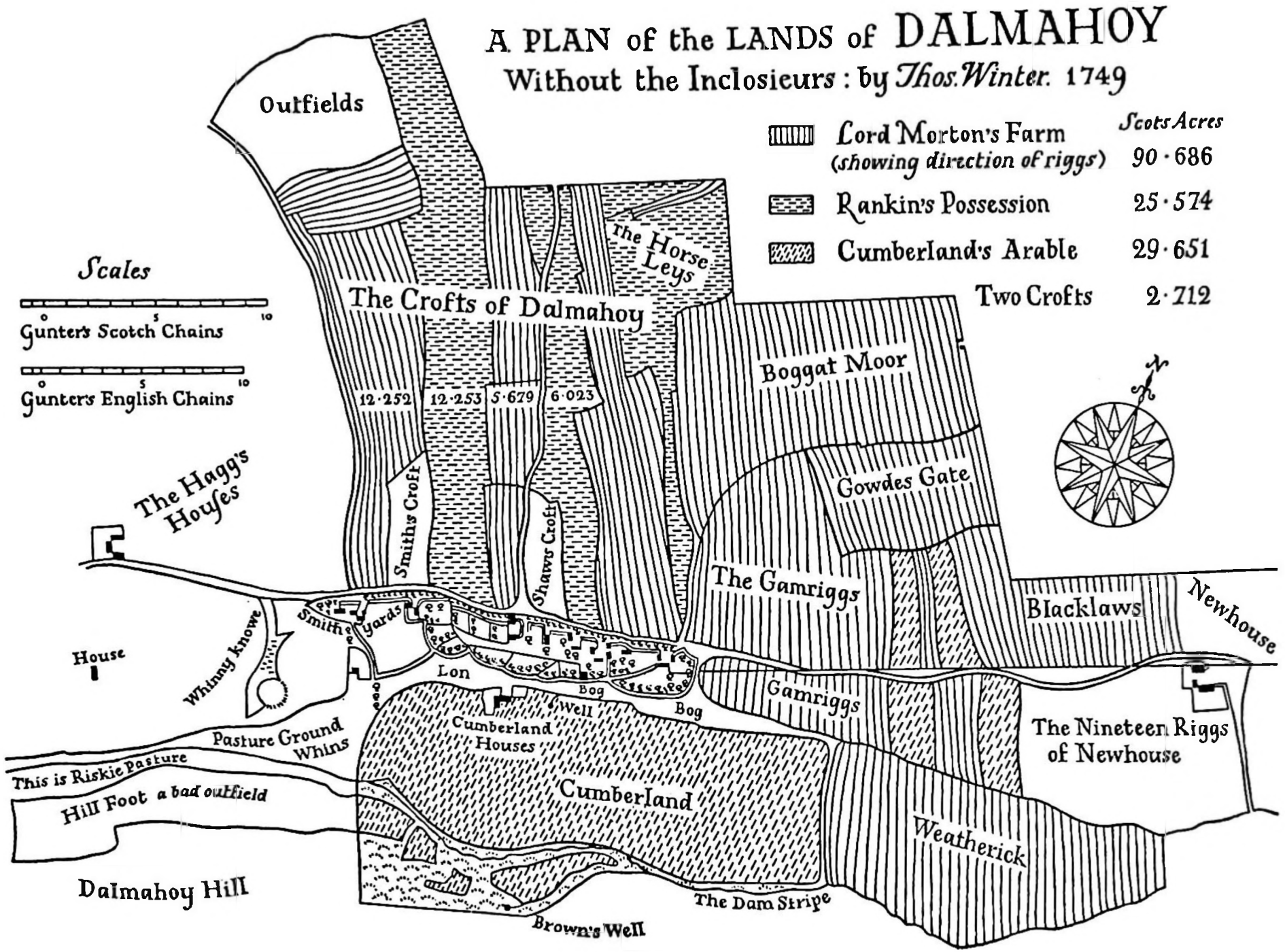

A PLAN of the LANDS of DALMAHOY
Without the Inclosieurs : by Thos. Winter. 1749
Lord Morton's Farm (showing direction of riggs) Scots Acres 90 · 686
Rankin's Possession 25 · 574
Cumberland's Arable 29 · 651
Two Crofts 2 · 712
Outfields
The Horse Leys
The Crofts of Dalmahoy
Boggat Moor
Gowdes Gate
Scales
Gunter's Scotch Chains
Gunter's English Chains
12 · 252
12 · 253
5 · 679
6 · 023
Smith's Croft
Shaws Croft
The Hagg's Houses
The Gamriggs
Blacklaws
Newhouse
Smith's yards
Whinny knowe
House
Lon
Bog
Well
Bog
Gamriggs
Cumberland Houses
Pasture Ground Whins
The Nineteen Riggs of Newhouse
This is Riskie Pasture
Hill Foot a bad outfield
Cumberland
Weatherick
Dalmahoy Hill
The Dam Stripe
Brown's Well

FIG. 5

industry but those of Dalmahoy when confronted with dwindling possessions and rising rents, were in a serious plight.

ENCLOSURE AT DALMAHOY

A string of twenty cottages set in small groups amidst tofts and yards constituted the village of Dalmahoy in 1749 (see fig. 5). These humble dwellings overlooked the road and faced over the crofts towards the bounding walls of the laird's new parks. A marshy loan led from the rear of the village towards the pastures which presumably were held in common by the tenants of Dalmahoy and the Haggs. Immediately to the south rose the slopes of Dalmahoy Hill.

The possessions of the village tenants lay in intermingled parcels in runrig style but certain modifications had gradually been effected and the crofts in particular present an interesting study in development. The irregular outlines of the various possessions shown on the plan reveal traces of an original arrangement of bands of rigs running in one direction and placed end to end. The familiar curving S shape of some of these can be detected. At the time when each rig was considered as a unit possession the periodic allocation of rigs amongst the co-tenants by a system of ballot doubtless produced a pattern of bewildering complexity. Consolidation of possessions had gradually taken place, however, first by combining groups of adjacent rigs and then by uniting groups of rigs lengthwise to form single possessions. It is interesting to note that the old tradition of equal apportionment had been maintained throughout this process: the two most westerly strips of the crofts amounted to 12·252 and 12·253 acres respectively and thus differed by as little as 0·001 of an acre, while the adjacent pair of strip possessions varied by only 0·3 of an acre. Total shares of the farm were no longer equal however and the laird had taken 91 acres of the crofts into his own hands while three tenants with their subtenants and two cottars shared the remaining 58 acres in unequal portions.

During the decade prior to the survey of the estate some of the Dalmahoy tenants fell into arrears with their rents and according to a memorial by the laird, dated 23rd July 1743, such tenants were to be summarily dealt with. The factor was enjoined to determine the exact state of the arrears so that "such of them as are disabled may renunce That their possessions may be let forthwith . . ." Some of the tenants held no

written tack although most of them had been in possession of their lands for a considerable period and were in similar condition to one, Thomas Tennents, who according to a statement dated 1743, had "possessed these 22 years 10 aikers in Dalmahoy town". Such tenants were easily evicted and the number in possession of Dalmahoy fell from eight to three during the six years from 1743 to 1749. The subtenants would also relinquish their holdings so it is not surprising that the rentals from that time onwards contained frequent references to renunciations of land and "waste houses".

The greater part of Dalmahoy had been converted to grass parks by the period from about 1770 to 1790 when the general enclosure and improvement of the estate was proceeding. The rent obtained from the grass parks of the estate was considerable: there is for example a record of Dalmahoy Parks having been let from 1766 to 1782 to a Mr Greig, flesher in Edinburgh, at a yearly rent of £500 sterling. In 1782 the parks were considered to be sufficiently improved for tillage to be resumed and seven years later the present farm of Dalmahoy Mains was constituted and let for nineteen years to a single tenant. The steading marks the eastern extremity of the old village.

The Modern Scene: Such was the fate of Dalmahoy and the fate of many a Scottish hamlet at that time. Some grass-covered vestiges of the eighteenth-century village can be seen while a smallholding and a row of cottages by the roadside perpetuate the old name of Long Dalmahoy. One of the householders with long-standing connections with Dalmahoy merely smiled and shook her head when asked whether she would consider Long Dalmahoy to be a village. Surveying the low wall on the other side of the road and the parks beyond she could not conceive that the dwellers in Long Dalmahoy had once possessed a considerable section of the policies.

The old fortification on the Whinny Knowe which might be of interest to students of antiquities has been lost to the modern ordnance maps.

ENCLOSURE AT PENICUIK

The town of Penicuik in 1796 was the creation of the Clerk family, the outcome of much enlightened planning and careful nurturing over a period of some sixty years: the plan shows the result to have been creditable (see fig. 6). To Baron Sir John Clerk must be attributed the original inspiration that led

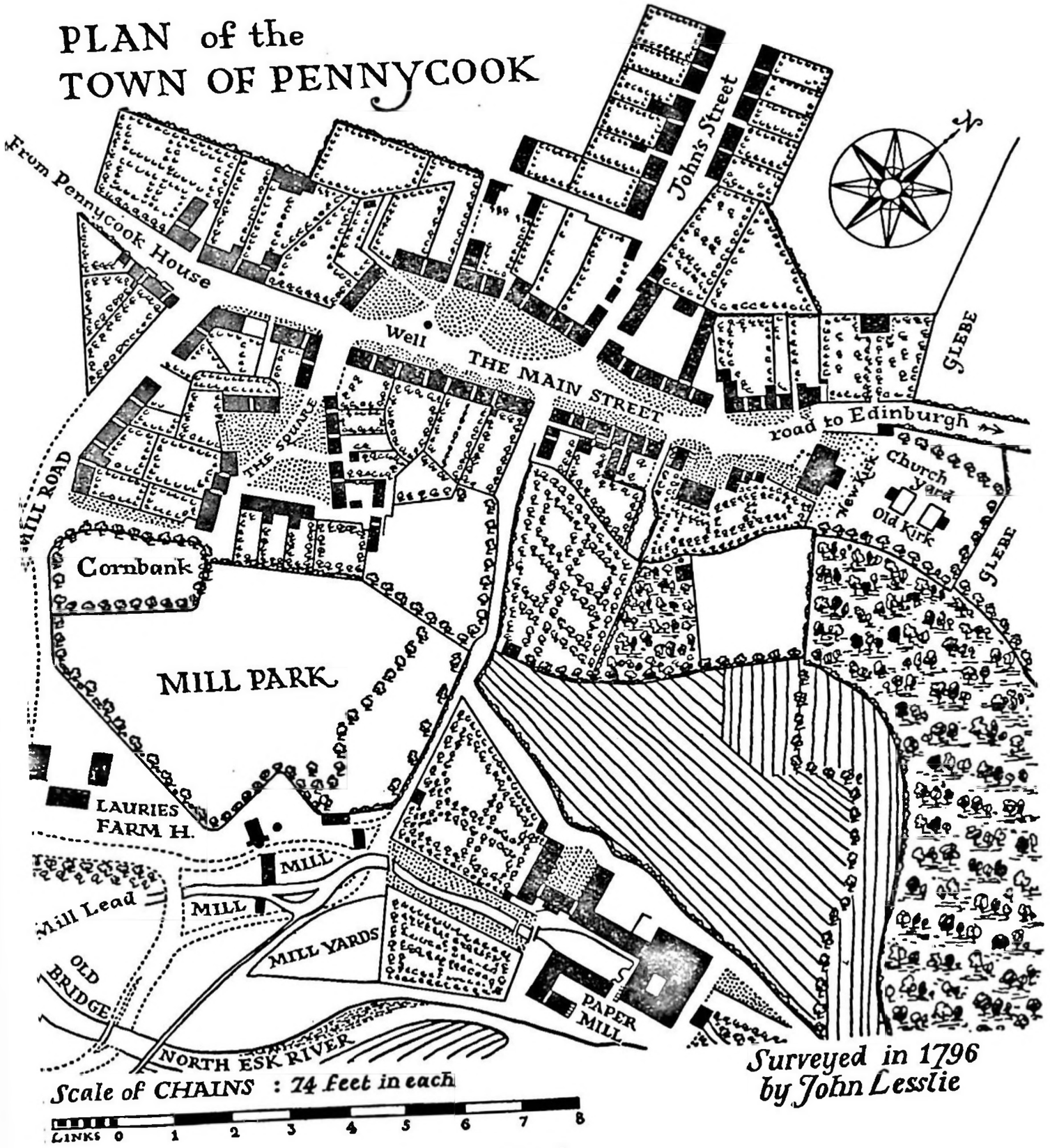

PLAN of the
TOWN OF PENNYCOOK
From Pennycook House
John's Street
Well
THE MAIN STREET
GLEBE
road to Edinburgh
THE SQUARE
MILL ROAD
Church Yard
New Kirk
Old Kirk
Cornbank
MILL PARK
LAURIES FARM H.
MILL
MILL
Mill Lead
MILL YARDS
OLD BRIDGE
PAPER MILL
NORTH ESK RIVER
Scale of CHAINS : 74 feet in each
LINKS 0 1 2 3 4 5 6 7 8
Surveyed in 1796
by John Lesslie

FIG. 6

to the transformation of an untidy cluster of farm steadings and cottages into a thriving industrial town designed on the lines of a garden city.

When the Baron turned his attention towards the improvement of Penicuik in the 1730's, the village was in an unpromising condition. The tenant farmers were backward in their methods and made no attempt to enclose their barn and kail yards or to restrain their sheep from roaming. Probably as an understatement Sir John wrote in his Scheme of Improvements "Pennicuik Town 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." [8] Undaunted, he looked forward to the day when industry would flourish and population increase in Penicuik and he had the vision to plan for future contingencies. Thus, for example, he made the intelligent recommendation that in future, houses should be built regularly and have at least two, if not three storeys. Sir James Clerk acted upon this recommendation when he planned and laid out the village about the year 1770.

As a commissioner of the Board of Manufacturers Baron Sir John Clerk had every opportunity of observing the prosperous condition of the industrial villages that were arising in various parts of Scotland and the facility with which part-time weavers and other artisans paid their rents. Accordingly he gave every encouragement to the paper industry which was already established in Penicuik, built what he called a "manufactory house" for weavers and tried with varying success to introduce such occupations as serge-making, bleaching and brick-making. Mindful of the social needs of the community he built the Town House at the corner of Main Street and John Street to serve as an inn, court room and concert room. Penicuik moreover was to be an attractive industrial town: "As to the grounds about this place, they ought to be enclosed that so the whole might resemble a garden." [9] Accordingly a gardener was established in Penicuik to ornament the banks of the Esk with trees and lay out gardens for the pleasure of the Penicuik folk. Few eighteenth-century factory workers can have had such pleasant surroundings created for them as the workers in Penicuik Paper Mills.

The formal lines of the plan executed by Sir James Clerk in the 1750's were relieved by slight irregularities which perpetuated some of the earlier lineaments of the village. The newly-constructed church with its classical front would add

dignity to the Main Street but the arrangement of the houses and the grass plots fronting them left the old well as the focus of interest. The Square, constructed on the site of one of the old steadings strikes a pleasantly informal note by its slight asymmetry and the arrangement of the grass plots for convenience of access rather than appearance. Some of the stone two-storey houses constructed with outside staircases can still be seen but few of the tree-fringed gardens are left. It is unfortunate that the uncontrolled industrial development of the nineteenth century obscured the earlier charm of Penicuik.

Houston (1759) *and Riccarton* (1772)

The estate plans of Houston and Riccarton in distinction from the more usual farm plans of the period are literally plans of estates. In each case the plan was drawn at a transitional stage in the process of enclosure when the policy parks had been formally laid out and the enclosure of the rest of the estate was incipient.

Houston Estate is seven miles west of Riccarton and lies across the county boundary between Midlothian and West Lothian: in 1759 it amounted to 1732 Scots acres and was larger than Riccarton by some 400 Scots acres. Both estates extended from a river frontage in a north-westerly direction across the grain of the country, Houston stretching from the River Almond to the vicinity of Uphall village and Riccarton from the Water of Leith at Currie to the Gogar Burn. There is a certain similarity in the appearance of the two estates in that each is diversified by a corrugation of ridges and hollows trending from south-west to north-east. The consequent local variations in topography and the possession of a river frontage led to the characteristic strip formation of farms which has already been noted on the Newton plan and is particularly noticeable on the Houston plan both as regards farm boundaries and the elongated shape of the estate.

Improvements on the farms of both estates began on the more level and fertile lands near the main roads, in each case at the north end of the estate, while the poorer and more remote lands were left until the primary enclosure was complete. The policy parks were laid out with characteristic precision and artistry and Riccarton in particular illustrates well the extent to which the orientation of the mansion house and its gardens might determine the alignment not only of the home

parks but also of the adjacent enclosure grids. The enclosures stand out in marked contrast to the unimproved lands where irregular fields, loans, and patches of bog and moss are conspicuous.

Although only 7 miles apart, the two estates afford an interesting study in contrasted development. The farms of Riccarton were in a much more advanced condition than those of Houston, doubtless because of advantages of position, altitude and soil. Riccarton was nearer to the market of Edinburgh and whereas the greater part of that estate lies below 350 feet, practically the whole of Houston Estate is above that altitude. Rentals for the early years of the century show that Riccarton farms even then were tenanted by farmers of some standing, some of whom were in possession of more than one farm. At that time the farm buildings other than those in the villages of Currie and Hermiston consisted of isolated single-tenanted steadings and individual possessions had been consolidated to a considerable extent. On the other hand, the plan of Houston shows a pattern of settlements akin to that which characterised the true runrig period. A scattering of hamlets or "fermtouns" and cot-houses can be seen standing amidst a fair proportion of moorland in the unenclosed section of the estate while the old holdings marked in the western enclosure grid show considerable inter-mixture of possessions. Contemporary records are not available for Houston, but it seems possible that the old co-operative methods of farming may have lingered on this estate. Thus it may be seen that an early-dated estate plan showing partial enclosure betokens a progressive laird but not necessarily an estate advanced in development and ripe for improvements (see fig. 7).

ENCLOSURE AT HOUSTON

The Laird of Houston who undertook the initial enclosure of his lands at an early stage in the enclosure movement showed both enterprise and courage. The policy parks may have given promise of rapid returns but the western enclosures which were superimposed on various parcels of land pertaining to five farms, consisted to a considerable extent of moorland and moss. Three large enclosures, Wester Park, Nettlehill Park and Stonie Park, each extending to 57 acres, were constructed here, presumably for the grazing of livestock. With this end in view, as so often happened in Scotland, enclosure took place some time

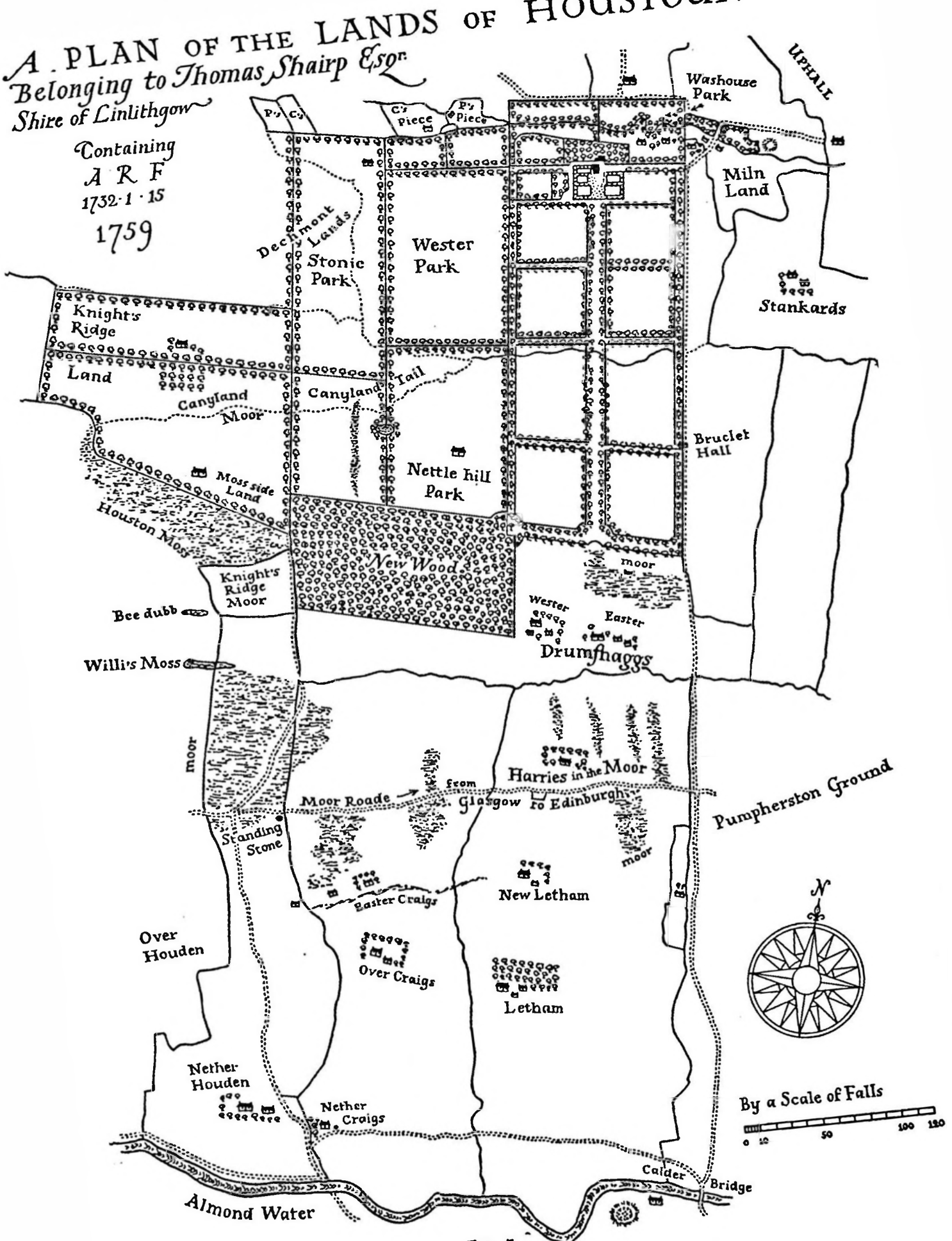

A PLAN OF THE LANDS OF HOUSTOUN
Belonging to Thomas Shairp Esqr.
Shire of Linlithgow
Containing
A R F
1732-1-15
1759
Washouse Park
UPHALL
P's C's
C's Piece
P's Piece
Miln Land
Decimont Lands
Stonie Park
Wester Park
Stankards
Knight's Ridge
Land
Canyland Moor
Canyland Tail
Bruclet Hall
Nettle hill Park
Moss side Land
Houston Moss
New Wood
Knight's Ridge Moor
moor
Wester
Easter
Drumshaggs
Bee dubb
Willi's Moss
moor
Harries in the Moor
from Glasgow to Edinburgh
Moor Roade
Pumpherston Ground
Standing Stone
moor
Easter Craigs
New Letham
Over Houden
Over Craigs
Letham
N
Nether Houden
Nether Craigs
By a Scale of Falls
0 10 50 100 120
Calder Bridge
Almond Water

FIG. 7

before other improvements were contemplated. With characteristic thoroughness, the wall dividing Nettlehill Park from Canyland Park was continued right through a small mire lying in the way, while the double line of trees deviated to encircle it (see fig. 7).

The policy parks were laid out with an eye to artistic effect. The lines of trees fringing the parks left room for a long avenue lying within view of the mansion house and for lateral walks leading from it. The parks were laid out in pairs which varied from 10 to 18 acres in size and doubtless were devoted mainly to grazing the profitable black cattle.

The enclosures were evidently of recent origin in 1759. One or two cot-houses were still standing in the new parks and some of the old irregular farm boundaries can be traced across the western enclosures. The cluster of cottages in the Wash-house Park close to the mansion house suggest a truncation of the miln-toun on the other side of the enclosure. As a result of this intake the old road leading westwards from North Mains was forced to take the right-angle bend so characteristic of post-enclosure roads. The small "pieces" or pendicles seen attached to the enclosures in the north-west have an untidy and incongruous appearance.

Beyond the New Wood and the parks lay the moorland, crossed by the "Moor Roade from Glasgow to Edinburgh". A standing stone is marked by the roadside. Harries in the Moor, New Letham and nearby cot-holdings represent intakes from the moor at some period when pressure of population was sufficiently acute to warrant the arduous work of reclamation. An increase in the number of tenants would account also for the splitting of the farm of Drumshaggs and consequent division of the original fermtoun into two almost contiguous hamlets named Easter and Wester Drumshaggs. The fermtouns of Over Houden, Over Craigs and Letham stood on the brow of the steep slope overlooking the River Almond. The pairing of Over Craigs with Nether Craigs and Over Houden with Nether Houden was characteristic of runrig times and often indicated expansion from an original settlement.

The Modern Scene: Most of the enclosures shown on the plan can still be seen, clearly outlined with trees. The large enclosures have been divided into smaller fields and the Wester Park, now crossed by the main Edinburgh to Glasgow road, has been subdivided into a number of smallholdings. The steadings of Nettlehill and Knightsridge standing close to a main railway

line have every appearance of prosperity while the old moor has long since given way to a patchwork of cultivated fields. A few stretches of heath remain however and the "New Wood" has degenerated considerably. Drumshaggs Farm is now known as Milkhouses, Houston Moss as Dechmont Moss, and Harries in the Moor as Harry's Muir. The housing schemes of Pumpherston are spreading towards the latter steading.

ENCLOSURE AT RICCARTON

The first impression given by the faded old plan of Riccarton Estate is one of complete confusion, produced by the amount of detail shown and the irregularity of outlines. The boundaries of a hundred and fifty-nine fields, faintly coloured and numbered to indicate possessors, are hard to distinguish from interjected patches of bog and pasture, courses of streams and ill-drained strips or "sykes", and the close network of roads and paths crossing the fields. The insertion of new roads and enclosures, projected or in process of construction, introduces further complication.

Once mastered, however, the plan (see fig. 8) reveals an advanced and straightforward system of land tenure since most individual possessions, especially in the northern section of the estate, lay in large consolidated blocks forming self-contained farms. Moreover, the key to the plan shows that the total acreage of rough pasture was small in relation to the extent of arable land: as little as 70 acres of uncultivable land lay interspersed amidst 1000 acres of arable land, nearly half of which was continuously-cultivated infield. In the midst of these lands which lay open and almost treeless, the perfect square of the policies stood out as a model of planned enclosure. The regular parks and gardens extended to 150 acres and were enclosed by a wall and belt of trees with fashionable serpentine walk.

Hermiston and Currie furnish further examples of the farm villages which were characteristic of the more fertile lands in the Lothians. There is a marked contrast in the plans of the two villages and in the condition of their lands. Hermiston, known variously as Long Hermiston, the Langherdmanstoun and even the Langhairedmanstoun in early plans, was manifestly a street village with the advantage of being situated on the main Glasgow to Edinburgh road and in the midst of excellent level farmland. The prosperous farmers of Hermiston

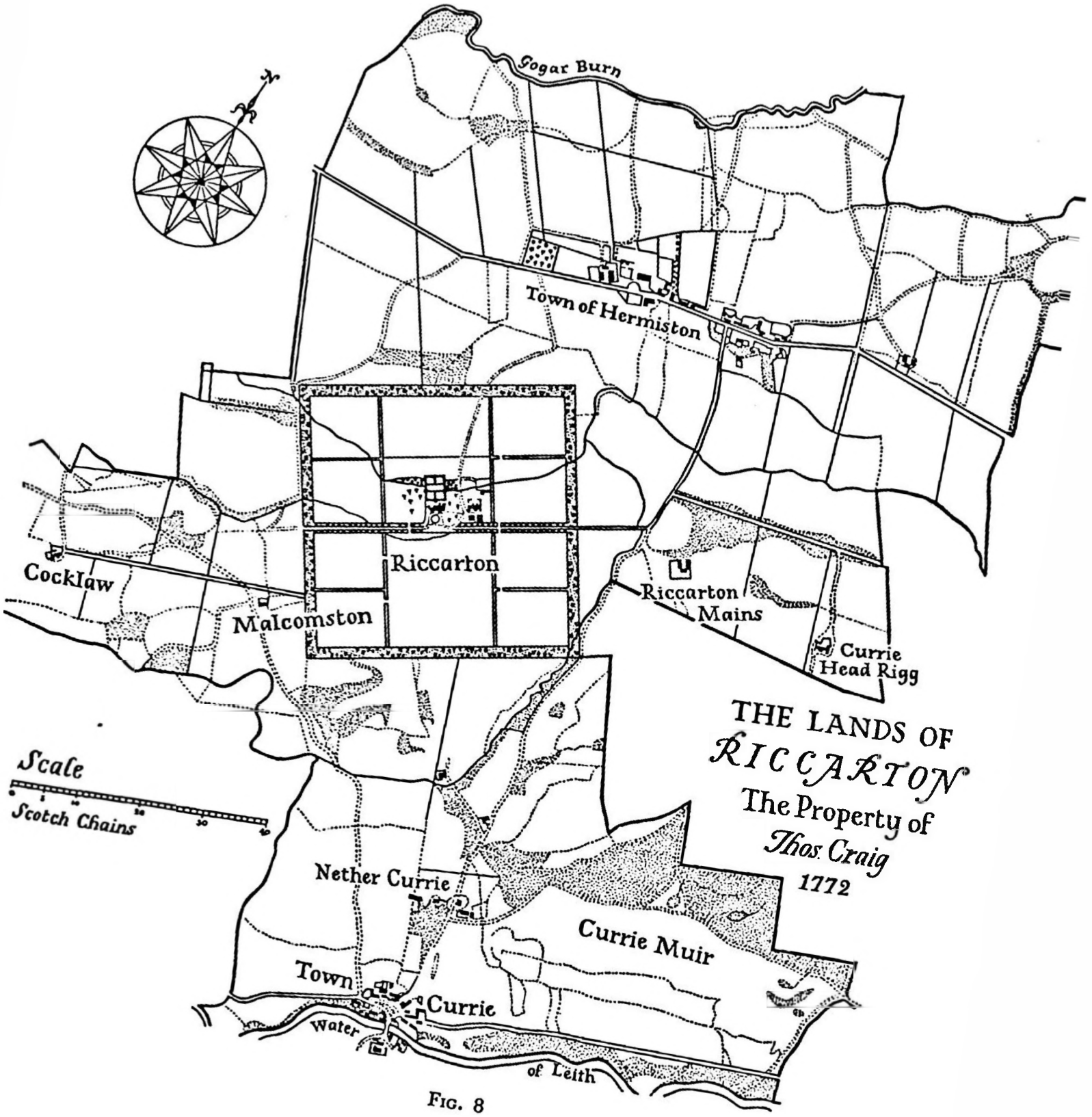

Gogar Burn
Town of Hermiston
Riccarton
Cocklaw
Malcomston
Riccarton Mains
Currie Head Rigg
THE LANDS OF
RICCARTON
The Property of
Thos. Craig
1772
Scale
Scotch Chains
Nether Currie
Currie Muir
Town
Currie
Water
of Leith

FIG. 8

were in a different category from those of the humble street village of Dalmahoy. Currie stood some 200 feet higher than Hermiston on a ridge overlooking its lands which were undulating and in a poorer and more backward condition than those of Hermiston. The kirkton of Currie consisted of four or five farm steadings and some cot-houses grouped round a village green at the point where the old Lanark road crossed the Water of Leith.

In both villages there were tenant farmers in possession of more than one farm. Three of the four principal tenants of Hermiston held each two farms and one of these possessed a farm at either end of the village, with a combined acreage of 317 acres. This was the equivalent of three ploughgates, which in characteristic runrig times would be worked co-operatively by twelve tenants. The farms were arranged in strips lying roughly at right angles to the main road and almost equally divided by it, in a fashion which has been observed elsewhere in the Lothians. By 1772 most of the lands of Currie, including Currie Muir which was once common to all the tenants, had fallen into the hands of two principal tenants. One of these, an Edinburgh bailie, possessed four holdings including the farm of Nether Currie. This small hamlet which stood at a short distance from Currie and can be seen on the plan, was obviously destined soon to disappear. Riccarton Mains, Currie Head Rigg, Malcomston and Cocklaw, were independent single-tenanted farms. Riccarton Estate had thus progressed far from the runrig era and was ready for improvements; in fact a number of tenants in both villages had enclosed one or two of their fields before the general enclosure of the estate was undertaken.

The Modern Scene: The aerial photograph shows a drastic simplification of the old complicated network of local roads (see fig. 9). Most of the roads and a considerable number of the fields which were being laid out in 1772 have remained as they were designed. It is interesting, however, to note that the projected enclosures shown to the west of Hermiston, which look as though they had been produced by drawing lines at right angles to the line of the policy wall, apparently were not suitable in practice. The Union Canal, which proved a tremendous boon to improvers for the transport of manures, can be seen on the aerial photograph passing close to Hermiston.

Hermiston has remained a distinctly rural village despite the rapid advance of the Edinburgh housing schemes but now

has only one steading. Currie Farm covers all the original lands of Currie and the farmhouse stands on the main street but Currie is virtually one of the ribbon tentacles of Edinburgh's development and the village has lost much of its character. Riccarton policies stand out clearly on the aerial photograph but the mansion house is in process of demolition.

CONCLUSION

It may be seen from these few examples that the study of changes shown by Estate Plans gives a unique picture of the economic and social geography of Scotland during the Agricultural Revolution, and affords interesting comments on the ideas and methods of the times, not to mention the men who altered the face of the landscape.

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4. *Ibid.*
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8. As no. 5: page 5.
9. As no. 5: page 5.

FIG. 9.—Aerial Photograph of Riccarton