

Old Extent in Bute and the meaning of the Merkland

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In connection with the Deserted Settlement Survey the author did some background research into the history of Bute farms, and came across many references to their Old Extent. This was always expressed as a monetary value, and clearly did not signify a contrast between the former and contemporary extent of their lands, as one might at first suppose. A search of the literature revealed that the term Old Extent, though of widespread use in Scotland, was not well understood. The consensus was that it was a fiscal valuation imposed in some areas in the twelfth century and in others later. Where it derived from, how it was calculated, what it signified and what its continuing purpose was remained unclear, and there was little published work on the subject. The author therefore set about collecting all the evidence he could find from Bute, to see if analysis of it could offer any illumination. This paper summarises his procedure and conclusions.

[Note on Units: Wherever acres are mentioned in this paper the Scotch acre of 0.51ha is intended. It consists of 4 roods of 40 falls, each fall being six ells in length, and is approximately 25% larger than the Imperial acre. The merk is valued at 13/4d, 3 merks thus making £2 Scots.]

Bute assessments

The *Exchequer Rolls of Scotland* are the principal source of Bute Old Extents, the earliest surviving returns for the island being those made in 1440 for the previous three years.¹ These list all the former royal lands of Bute, about two thirds of the island. For the remainder, Old Extents must be gleaned from charter evidence, sasines and other sources. From c1400 onwards, and especially in the sixteenth century, these are sufficiently abundant to allow a complete picture to be built up, except for the £20 land (or burgh) of Rothesay, where records are lacking and a different system of tenure prevailed. Old Extents continued to serve as a benchmark of relative land values long after their absolute monetary value had become irrelevant through inflation.

Old Extent assessments are distributed remarkably evenly across Bute, with the exception of the unsettled higher moorland in the north. The average valuation of the island is 2.9 mks/km². If land above 150m OD is discounted, the average is close to 3.3 mks/km² in every part of the island, otherwise north Bute averages 2.3 mks/km².

Though this uniformity may suggest a coherent system of assessment, complications appear when one reviews the actual values ascribed to each farm. These are given in the Appendix, but Table 1 summarises them in a frequency distribution, discounting fractions of farms which did not achieve an enduring independence.

Settlement fission

It is at once apparent that 3 merks (40 shillings) is by far the most frequent denomination, though still accounting for only a third of the total. Documents confirm that less regular values result from larger landholdings being split up: the units of 2¹/₃ merks are the outcome of a threefold division of the 7 merk land of Nether Kilmory, while the fourfold division of Scoulag created 4 merk units, and that of Tawnie units of 1⁷/₈ merks. There was extensive settlement fission on Bute during the mediaeval period. The 3 merk farms result in many cases from 9 or 12 merk units being divided into three or four parts. At most, a fifth of the island farms might be argued to have retained their ancient integrity.

More recent settlement

It has been generally recognised that assessments (or *extents*) became fixed at an early period: subsequent settlement growth was not assigned additional value, and none was assigned to new settlements. According to Dodgshon,² 'from as early as the thirteenth century onwards, the

assessments of most touns probably remained fixed', and certainly on Bute there is very little evidence of changes after 1440. The only alterations in record between 1440 and 1506 are the increases of Kylmor Superior (Meikle Kilmory) from $2\frac{1}{2}$ to 5 merks and of Kilwhinleck from 3 to $5\frac{1}{2}$ merks. The latter is explained by the incorporation of the $2\frac{1}{2}$ merks of Blardyve, which subsequently disappears from the record, and it is possible that the former reflects a similar union with a unit accidentally omitted from the 1440 list. Meikle Kilmory still had two major foci of settlement at the end of the 18th century.

Table 1: Frequency distribution of Old Extents in Bute

Merks	Shillings and pence	Frequency	Total value (Merks)
$\frac{5}{6}$	11/0 $\frac{1}{4}$	1	$\frac{5}{6}$
1	13/4	1	1
$1\frac{1}{4}$	16/8	2	$2\frac{1}{2}$
$1\frac{1}{2}$	20/-	3	$4\frac{1}{2}$
$1\frac{2}{3}$	22/2 $\frac{3}{4}$	1	$1\frac{2}{3}$
$1\frac{3}{8}$	25/-	4	$7\frac{1}{2}$
2	26/8	5	10
$2\frac{1}{3}$	31/1 $\frac{1}{4}$	3	7
$2\frac{1}{2}$	33/4	5	$12\frac{1}{2}$
3	40/-	34	102
$3\frac{1}{2}$	46/8	6	21
$3\frac{3}{4}$	50/-	6	$22\frac{1}{2}$
4	53/4	9	36
5	66/8	7	35
$5\frac{1}{4}$	70/-	1	$5\frac{1}{4}$
6	80/-	4	24
$7\frac{1}{2}$	100/-	4	30
TOTAL		96	$323\frac{1}{4}$

The number of Bute farms created after Old Extents were assigned is very small. Balnakeilly, a site within the former Forest of Bute, became a farm by the later 16th century, and along with Blackhouse (Teydow) on the moor above, in some sense inherited the £5 extent of the Forest. New Farm, on the other hand, created on the moorland above the policies of Mount Stuart House around the time of the latter's construction (1720), was perhaps intended to replace the farms of Kerrymoran and Kerryniven lost to this emparking, but is not credited in the records with any of the 8 merks they once possessed. Some pendicles or *butts* (as the cottar holdings were usually known on Bute) achieved a degree of greater independence by the 18th century, for example Glencallum and Drumreoch, but these had probably existed long before as dispersed subsidiary settlement foci within existing units. Barefield (= bere field), 'an enclosure taken off Little Kilchatten',³ was leased as a separate holding in 1803, but as its name implies, the actual lands had been in cultivation long before this, whether or not it had been occupied as a distinct settlement site. No site of this nature possessed an Old Extent assessment distinct from that of the larger unit out of which it was formed.

What is a merkland?

Traditionally, this question was answered with the seemingly trite tautology that it 'formerly paid a merk of maill'.⁴ This answer at least serves to emphasise the fiscal nature of the merkland, and directs attention away from any attempt to identify it with a measurable area of ground. Nevertheless, one may still legitimately ask: what caused a farm to be assessed at a specific number of merks? Ultimately, the answer must lie in its productive capacity, the stock it carried or the grain it grew. One of these, or a combination of them, must have formed the basis of any assessment. Scholars have favoured the arable option, and two hypotheses will shortly be considered, both of which share the assumption that it was on the basis of its cultivated land alone that a farm received its Old Extent assessment.

Several corn mills were established on Bute during the fifteenth century, most farms being thirled to one or another. But this may not indicate any dramatic change in what was actually being produced. According to the Exchequer Rolls, the principal levy at this time was barley, although marts (young fat cattle) were a significant subsidiary item. No mention is made of dairy products from Bute, although these figure prominently in Kintyre and many highland areas. But the importance of cultivation in the middle ages can hardly be doubted, and it seems reasonable to postulate that Old Extents might have been based on it.

Meaning of the merkland: first hypothesis

Dodgshon argues⁵ that the arable acreage which was the basis of Old Extent must have been what later came to be called *infield*. Outfield is almost by definition a later augment, former hill or waste land taken into less intensive cultivation as need arose.⁶ He goes on to argue that a merkland represented 8 (or later, in some places, 13) acres.⁷ This would mean that a farm having 24 (or later perhaps 39) acres of infield (i.e. arable land in regular cultivation) would have been assessed at 3 merks Old Extent, regardless of how broad the rest of its lands might be.

This hypothesis may be tested in the case of Bute. Using Peter May's maps⁸ of 1780/1, it is possible to compute with reasonable confidence the former infield acreages of a number of Bute farms. These maps are extant for about one third of the island, and they provide a wealth of information, including the name and acreage of every field. Normally, field-names with *croft* are indicative of infield, and those with *fold* of outfield, although ambiguities arise from the occasional use of other terms such as *butt*, *riggs* or simply *field*. Nevertheless, by using the layout of the farm as a guide in doubtful instances, a good estimate can usually be achieved. These figures for a selection of farms are shown in Table 2. The third column shows the number of infield acres per merk, for comparison with Dodgshon's hypothesis. The average figure of just over 6 is not too far from the 8 infield acres per merk which he postulated, but individual farms vary widely, and there is little correlation between Old Extent values and the area of infield. For example, the adjacent farms of Drumachloy and Kildavannan each had about 27 acres of infield, yet one is a 3 merk and the other a 6 merk land: likewise with the neighbouring farms of Nether Ardrosedale and Ballycaul. What is perhaps significant is that in both these cases the 6 merk farm is much larger in total area than its neighbour. The importance of this will become apparent later.

The final column of the table shows the acreage of infield predicted for each farm by the hypothesis, on the basis of 8 acres per merk of Old Extent. Although some predictions are accurate, many are widely disparate, and overall correlation is poor. This suggests that there is little reason to accept Dodgshon's hypothesis in Bute, unless better grounds can be found. In fact, there are other reasons for rejecting it, which will be discussed below.

Table 2: Infield acreages of some Bute farms compared with their Old Extents.

Farm name	Infield acreage	OE (merks)	Infield acres/merk	Infield acreage predicted by Dodgshon's hypothesis
Quien	13.4	2½	5.4	20
Drumachloy	27.4	6	4.6	48
Kildavanan	27.7	3	9.2	24
Scarrel	19.5	3	6.5	24
Lenihall	13.7	1½	9.1	12
Ardmaleish	34.0	7½	4.5	60
Achavoulig	12.0	3	4.0	24
Kilbride	18.5	6	3.1	48
Glenmore	21.3	5	4.2	40
Tawnie & Rue	23.9	5⅞	4.3	45
Ettrick	40.1	8	5.0	64
Ambrismore	27.8	3	9.3	24
Meikle Kilmory	18.9	5	3.8	40
Quogach	20.0	2½	8.0	20
Greenan	23.6	3	7.9	24
Auchintirrie	16.8	3	5.6	24
Cranslagvourity	29.3	3	9.8	24
Largievrechtan	28.5	4	7.1	32
Nether Ardroscaidale	37.4	6	6.2	48
Ballycaul	35.2	3	11.7	24
Ballianlay	22.9	3	7.6	24
Ballycurrie	29.7	3	9.9	24

Second hypothesis

A second hypothesis may now be considered. This derives from a decree of the Scottish Exchequer, dated 1585, quoted by McKerral,⁹ which states:

13 acres extendis and sall extend to ane oxgait of land and four oxgait extendis and sall extend to ane pund land of old extent.

Since 2 oxgaits comprise a husbandland (standardised at 26 acres) and 4 husbandlands a ploughgate (104 acres), it follows that a £2 (3 merk) land is here defined as comprising a ploughgate of arable land, or to be more precise, a ploughgate is deemed 'to extend to' 3 merks of Old Extent.

McKerral does not commit himself to this interpretation: indeed, he specifically warns against the dangers of it: 'this equation was only decided on as an administrative expediency, and it would be quite erroneous to suppose that the area of any holding expressed in merklands could, before the land had been surveyed, be obtained in acres by multiplying them by 34⅔.'¹⁰ Nevertheless, it seems worth investigating the implications of this equivalence, since if no such relationship existed, at least in the central lowlands and in the 16th century, the decree could have carried little conviction.

This definition implies an assessment of only 5.7 mks/km² for arable land, in contrast to the 24.5 mks/km² of the first hypothesis. A ready refutation would be provided by a single holding having a higher valuation than this. Of course, no actual farm could ever be 100% arable, since land would always be required for yards and buildings, dykes, tracks and loanings, not to mention summer grazing for draught oxen as well as the inevitable boggy corners, thickets and rocky outcrops which every Bute farm must have possessed. Consequently, any value above 5mks/km² should cast doubt on the hypothesis.

The earliest extant acreage figures for Bute farms are those given by Fowlis (1758-9) in the margin of his map of Bute Estate lands.¹¹ The much more detailed maps by May (1780-1) mentioned above offer what seem likely to be more accurate figures, including land-use breakdown. But Fowlis' map was a part of the 3rd Earl's first moves towards 'improvement' and some boundaries may have been redrawn before 1780, so it seems wiser to follow Fowlis. His figures were checked by measurement on his map, and found to be generally accurate, apart from a few obvious errors. They were rejected only when the measured value was supported by May (or more modern sources) against Fowlis's own figure. Accurate acreages for Kames Estate become available from 1810.¹² The figures are listed in the Appendix. The Old Extent of each farm in merks/km² has been calculated, and is shown in the final column of the Appendix table. No figure higher than 5mks/km² occurs, although a number of farms with a high proportion of arable land come close to that value.

Discussion

This second hypothesis is more convincing than the first. But a serious difficulty makes itself felt as soon as one considers Bute as a whole. Using the formula given in the decree, it is easy to calculate the area of arable land which the Old Extent figures would imply for the entire island. This proves to be 51%, which seems unduly high when compared with the 41% of 'improved' land (arable, silage and pasture) achieved by present day farming.¹³ Certainly, field survey shows that on many hill farms more land was cultivated during the mediaeval period than subsequently. But even allowing for this, the extent of arable implied by this hypothesis is surely too large, especially since additional areas of former moss and meadow land came into cultivation through 'improvement' after 1760 and in more recent times. It follows that only two options remain: either the decree exaggerated the area of arable extending to a pound land, or else some account must also have been taken of a farm's stock-rearing capacity in the Old Extent assessments. It is perhaps only fair to point out that the careful legal language of the decree, in stating that 4 oxgaits extend to a pound land, leaves open the question of whether anything else of a different nature might similarly 'extend' to it.

One might seek a compromise figure between Dodgshon's 8 acres per merk and the decree's $34\frac{2}{3}$, perhaps something around 20 acres of arable per merk, equivalent to an arable value of 9 mks/km². This would reduce the arable acreage implied by the assessment to a more credible total of around 30% of the island, but it would still be hard to explain the actual figures for individual farms. The implied extent of cultivation on the rougher hill farms would have been excessive, while the 'better' farms would have had disproportionately small areas of arable. There is no simple correlation to be found between infield or arable acreages and Old Extent values, and so any hypothesis based on arable alone must be rejected.

Second hypothesis emended: (1) field survey evidence

Stock was a precious commodity at all times, and however firmly one believes that by the 12th century arable was the basis of subsistence, it seems unlikely that no value would be ascribed to land where sheep and cattle grazed. Unfortunately, as stocking density depends on land quality, it is impossible to postulate a uniform value per acre for grazing land, corresponding to that given for cultivated land in the decree, which might then be applied to individual farms in order to calculate their relative proportions of grazing and arable. In particular cases, however, where it is

possible on the basis of fieldwork to arrive at an estimate of the probable extent of mediaeval cultivation, one can use the figure stated in the 1585 decree to calculate the value of the farm's arable land and hence the residual value of its uncultivated area. This provides a valuable field-based check on the purely statistical methods used later in this paper.

South Garrochty was highly assessed in the Old Extent, but now consists mainly of rough grazing. Field survey indicates, however, that something like 40ha were once cultivated, in addition perhaps to some of the 14ha presently improved. On this basis, a mean value of around 1.8 mks/km² would be indicated for its grazing land. At the other end of the island the farm of Kilmichael had one of the lowest Old Extent assessments per unit area. Extending to almost 5 km², it was valued at only 5 merks. If this value derived wholly from arable, a cultivated area of 85ha would be implied by the formula. In fact, field survey suggests that no more than 40ha at most have been under cultivation, accounting for just over two merks of its value. This would mean that the remaining land was worth 0.7mks/km² on average. Of course, if less than 40ha were cultivated at the time in question, the value of the grazing would be higher. Kilmichael includes a large proportion of the roughest and least accessible moorland on the island, and it is not surprising that the assessment here is lower than at Garrochty.

On neighbouring Lenihuline, a similar calculation suggests a value for the uncultivated land of 0.9mks/km², and at Glecknabae 1.2mks/km². Kilbride is a 6 merk land with a rather larger proportion of potential arable than any of the foregoing, clearly defined by the head dyke, and amounting to some 72ha out of a total of 200ha. This implies a grazing land value of 1.6mks/km², which may be a typical figure for the somewhat better pasture afforded by less rough portions of the island's interior. Unfortunately, on most of the 'better' farms, where even higher figures might have been anticipated, recent cultivation has obscured the evidence and it is no longer possible by field survey to estimate the extent of former arable with any confidence, and therefore impossible to obtain a value for the pasture land. But by extrapolation from those farms where figures can be obtained, it would appear that the value of pasture on the island may have ranged from at least one third that of arable down to around one eighth.

This allows a reconsideration of the difficulty encountered earlier, that if the equivalence stated in the 1585 decree were true, 51% of the island would have been arable land. This assumed, of course, that no value was being given to land other than arable. But if one postulated a mean value for non-arable of 1.5mks/km², the area of arable would be reduced to 33% of the island, a more credible figure some 8% below that for improved land at the present day. Using this method it is impossible to be precise, but one may conclude that around one third of the total area of the island may have been assessed as cultivable at the time of the Old Extent.

(2) General Monk's valuation¹⁴ and modern land-use survey

These conclusions were confirmed by an entirely different line of reasoning, comparing Old Extents with 17th century assessments and modern land-use. Bute was divided into 25 districts based on ancient land-unit boundaries, and first the Old Extent assessment for each district was noted and the values per km² calculated. This was repeated using the figures of a 'particular and general valuation' (PGV henceforth) carried out in 1655, under orders of General Monk. At this date a figure of bolls was assigned to each farm (presumably as a tax), representing a fraction of its sowing, and hence roughly proportional to its arable acreage, as may be confirmed by comparison with May's 1780 figures (see Table 4). Thirdly, using 1978-82 1:10,000 OS maps, the percentage of 'improved' (*i.e.* arable, silage and enclosed pasture) land in each district was measured. The range factor (ratio of highest to lowest value) and the co-efficient of variation V% (ratio of standard deviation to mean) were calculated for all three sets of figures. These results are shown in Table 3.

Table 3: Range factors and co-efficients of variation (see text).

	range factor	V(%)
Old Extent	3.2	25.4
1655 (arable)	20	53.4
1982 (improved land)	20	51.4

The 1655 and 1982 figures are remarkably similar, while those for the Old Extent show a much smaller variation and range. There are only two factors which could account for this striking discrepancy. Either arable land in the time of the Old Extent was very much more evenly distributed across the island than in the seventeenth century and subsequently, or else some value was also being given to non-arable land in the Old Extent assessment.

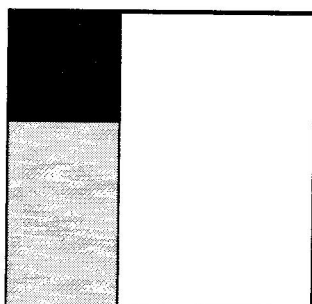
The first of these options has already been ruled out as a major factor, and one is therefore obliged to take the second, thus confirming that no theory of the merkland based on arable alone can be true. Moreover, it is possible to calculate what the relative values of arable and grazing must have been, in order to yield the value of V given in the table. If arable land at the time of the Old Extent was distributed among the farm holdings in much the same proportions as in later times, this calculation shows that grazing land must have been assessed on average at about one third of the arable rate.

This method makes no presupposition regarding the *relative areas* of grazing and arable land, or the *absolute value* of either. But in determining a ratio of about 3:1 between their mean relative values, it sets strict limits within which their absolute values must fall. Since the mean Old Extent for the island is 2.9 mks/km², it is obvious that the mean grazing value cannot exceed this (assuming that cultivated land is more valuable than uncultivated), and it follows that a figure of around 8 merks/km² is the maximum possible value for arable land. Furthermore, this could only occur in a situation where the total extent of arable was very small. This value is equivalent to 25 acres per merk and provides further proof that Dodgshon's hypothesis (which postulated only 8, or perhaps 13 acres per merk) is untenable. Furthermore, because arable cannot be worth less than 5 merks/km², since the highest rated units have this value overall, it follows that grazing cannot be worth less than about 1.6 mks/km² on average. If the earlier arguments are accepted, and arable rated according to the 1585 decree, this third method would yield a figure of around 1.8 mks/km² as an average value for grazing land, and imply an arable area of about 30% of the island, in close agreement with the results of the previous method.

(3) Formula of the middle term.

When total as well as arable acreages of units are brought into the equation, a correlation becomes apparent between Old Extent assessments and the arable acreages indicated by the 17th century valuation, despite the inevitable changes brought about over a period of 500 years.

This relationship indicates that the Old Extent of a unit is in proportion to the geometric mean (or middle term) between its arable and total acreages. This area may be called the *assessed acreage* of the unit, and can be represented thus:



where the large square represents the whole unit and the small black square the arable portion of it. The grey rectangle represents the value of the pasture land (number of soums, i.e. headage of cattle which the land will support), while the long rectangle made up of black and grey represents the *assessed acreage*. It is this rectangle to which the Old Extent value is proportional.

It would seem that this *assessed acreage* is the basis of the 1585 decree, and not simply the arable acreage alone, as the original second hypothesis supposed. This explains why that hypothesis seemed to fit farms with a high proportion of arable, but not those where pasture was dominant. With this crucial emendation, the author believes that the figure of $34\frac{2}{3}$ acres to which McKerral refers is indeed a true key to the interpretation of the merkland.

Table 4 compares three sets of arable acreages for some selected farms. The Old Extent figures derived from the formula of the middle term may be compared with those given by May (1780). Between these, the PGV figure (1655), on the basis of 5 acres per boll assessed, is offered for comparison. This equivalence has been chosen as a convenient round figure: that it is probably fairly close to the truth is borne out by the general similarity to May's figures, major change being unlikely on the farms in question between these two dates. Significant differences between the Old Extent and the other figures probably reflect real changes, as at Largievrechtan, where a considerable expansion of cultivation may have taken place.

Table 4: Estimated arable acreages of some Bute farms at different dates.

Farm	Old Extent (middle term)	PGV @ 5 acres/boll (1655)	May, 1780
Ambrismore	65	80	86
Quien	56	40	38
Meikle Kilmory	133	130	119
Kerryfearn	61	50	53
Ballycaul	64	70	88
Ballianlay	77	70	89
Ballycurrie	77	100	78
Greenan	66	60	71
Largievrechtan	89	130	128
Achavoulig	28	35	41

At the rate of 5 acres per boll the PGV figures imply a total arable acreage for the island (excluding Rothesay) of 6230 (28.5%) in the mid 17th century. At $34\frac{2}{3}$ assessed acres per merk, the arable area indicated by the Old Extent would be 5880 acres (27%) if the island were treated as a single unit. On account of the unequal distribution of arable land, using the geometric mean in this way will give a smaller result than that obtained by calculating the individual arable acreages of each farm and totalling them. The figure obtained by this latter means is 6812 acres (32%). It would seem that a figure fairly close to this must have prevailed both in the 12th and 17th centuries.

This formula also provides another method of calculating the average value of non-arable land as it was assessed in the Old Extent. Following the argument outlined above, the value of arable worked out from the formula can be subtracted from the farm's total value, and hence its non-arable acreage can be assessed separately. This yields a mean figure of 1.7merks/km² for the value of grazing land, which is similar to the estimates obtained earlier.

Some consequences

Similarities between Bute as envisaged here and circumstances in mediaeval Ireland are evident from Lamont's discussion of the *Crith Gablach*.¹⁵ In particular, its account of the property commensurate with the different ranks of *Bo-Aire* illustrates how completely cultivation was integrated into the economy of what has been called 'pastoral Ireland'. According to this document, the *Bo-Aire* should possess a greater proportion of the essentials for ploughing as the numbers of his cattle increase, and a 'full ploughing apparatus' when he has 63 cows' grazing. This balance between arable and pasture is roughly comparable to that deduced from Bute Old Extents.

Lamont¹⁶ suggested that a Cowland (grazing for seven cows of which one was paid annually in mail) was equated with an assessed value or extent of 3/4d, meaning that four cowlands constituted a merkland, and there seems no reason to dispute this. It means that in value terms 28 soums (land sufficient for 28 cows and followers) would be the grazing equivalent of an arable merkland, and using the 1585 equivalence, 84 soums would be equal in value to a ploughgate. The formula of the middle term suggests that in all of Bute 128 merks were for souming. One cow is commonly reckoned as equivalent to five sheep, but one cannot of course say what ratio of each was being farmed without additional information. There is good reason to believe, on the basis of travellers' reports, that both were kept on Bute in some numbers. Tucker, for instance, wrote of the island in 1656 'the inhabitants are all countrymen, and cowherds, who feed cattle, and spin and make woollen cloth...'¹⁷

Conclusions

The author concludes that the merkland is a fiscal unit, comprising a merk's worth of grazing or arable land made up in any combination from 28 soums of grazing or 34²/₃ acres of arable. Since Old Extent values are commonly whole numbers or simple fractions resulting from settlement fission, the assessment itself cannot have been simply a descriptive survey, but was normative in the sense that it defined the nature and physical extent of each farm, in the context of an agriculture in which arable and pastoral farming were indissolubly linked. The terrain determined which of the two would dominate any particular holding, but the ideal of a balance was retained, and realised as far as topography would permit, for the very practical reason of their mutual interdependence. This is apparent in the actual shape of the farms, which tend to be strips of land running from the coast towards the centre of the island, so as to combine as much variety of terrain as possible within the one holding, and to share out fairly the better and less good land.

Regarding the use made of the land, it has been shown that about one third of Bute was arable, the proportion being 40% in Kingarth parish and about 25% in the hillier northern part. It would appear that these proportions did not alter much over the last millennium. It was deduced that the grazing extended in all to c.3,600 soums. Estimating the human population is a little more problematic, but on the basis of 1.2 hectares arable per person,¹⁸ a figure just short of 3,000 may be postulated as a maximum. For comparison, the rural population in 1775 was c.2,500. Again, it seems likely that long term changes were minimal, and the fluctuations resulting from plague and war relatively short lived.

Since the Old Extent would seem not to be a 12th century innovation, but the re-expression of a more ancient formula, whose context in Bute is perhaps Dalriadic, it may be suggested that a bridge is being established between an Iron Age for which there is increasing evidence of dense settlement and intense agricultural activity throughout Britain¹⁹, and the later mediaeval period, when at last enough documentation survives for a clear picture to emerge. At least there is evidence here of some continuity between these periods, in terms of their agriculture and rural settlement patterns.

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APPENDIX

Old Extents and acreages of Bute farms

Acreage figures are those given in the margin of Fowlis' map of 1758, except where indicated otherwise. (FM) signifies a figure measured on Fowlis' map where the margin is either deficient or clearly erroneous; * Kames Estate figures (1810); ** measured on modern OS map using old boundaries.

Farm	OE	Acreage	Mks/km ²	Farm	OE	Acreage	Mks/km ²
S Garroch	3¾	174	4.2	Barnauld	3½	307	2.2
N Garroch	3¾	264	2.8	Kerrycrusach	3½	230	3.0
S Kelspoke	3¾	156	4.7	Kerrycroy	5	284	3.5
N Kelspoke	3¾	184	4.0	Mid Ascog			
Branser	2	92	4.3	(half)	1½	62	4.7
Kingaven	1½	159	1.8	Ascog (rem)	6	298**	3.9
Largizean	3½	165	4.2	Scalpsie	3½	161	4.3
Dunagoil	3	148	4.0	Quien	2½	135	3.6
Lubas	5¼	238	4.3	Ardscalpsie	3½	170	4.0
Langalchorad	3	247	2.4	Mecknoch	2⅓	116	3.9
Quochag	3	267	2.2	Kilmory McNeill	2⅓	114 (FM)	4.0
Langalbuinloch	3	213 (FM)	2.8	Little Kilmory	2⅓	111	4.1
Culevin	3	167 (FM)	3.5	Meikle Kilmory	5	226	4.3
Meikle				Barmore	3	282	2.1
Kilchattan	5	314	3.1	Glenchromag	1¼	86**	2.8
Little Kilchattan	3	139	4.2	Chapelton with			
Kerrymenoch				Achamor	2⅓	143	2.9
McKirdy	3	153	3.8	Balilone	1⅔	96**	3.4
Kerrytonlia	3	127	4.6	Great Barone	5	361	2.7
Bruchag	3	138	4.3	Kerryfean	2½	124	4.0
Stravanan	3	131 (FM)	4.5	Quogach	2½	97	5.0
Kerrymenoch				Kilwhinleck	5½	331	3.3
Stuart	2	97	4.0	Inchmarnock	7½	433	3.4
Gallachan	3	163	3.6	Nether			
Ardnahoe	3	165	3.6	Ardroscadale	6	247	4.8
Ambrismore	3	166	3.5	Upper			
Ambrisbeg	2½	141	3.5	Ardroscadale	6	244	4.8
Birgisdale Crieff	3¾	199	3.7	Dunalunt	3	153	3.8
Birgisdale Knock	3¾	229 (FM)	3.2	Ballycaul	3	169	3.5
Kerrylamont	5	216	4.5	Ballianlay	3	140	4.2
Scoulag	12	593 (FM)	3.9	Ballycurrie	3	141	4.2
Mid Scoulag	4	179	4.4	Auchintirrie	3	165	3.6

Farm	OE	Acreage	Mks/km ²	Farm	OE	Acreage	Mks/km ²
Greenan	3	164	3.6	Glecknabae	3½	289	2.4
Eskechraggan,	2	250	1.6	Lenichuillin	3	382	1.5
Largievrechtan	4	217	3.6	Kilmichael	5	859	1.1
Cranslagvourity	3	155	3.8	Kilbride	6	390	3.0
Cranslagloan	3	178 (FM)	3.3	Achavoulig	3	384	1.5
Cranslagmory	3	128*	4.6	Glenmore	5	433	2.3
Acholter	3	142*	4.1	Ardmaleish	7½	359	4.1
Easter Kames	3	448*	1.3	Stuck	4	292	2.7
Wester Kames	3	171*	3.4	Culnashambrug	2	161	2.4
Iding	6	854*	1.4	Shalunt	4	368	2.1
Colmac	7½	328*	4.5	Tawnie	3¾	334	2.2
Nether Ettrick	4	209	3.8	Bullochreg	1 ⁷ / ₈	217	1.7
Upper Ettrick	4	220	3.6	Rue	1 ⁷ / ₈	202	1.8
Drumochloy	6	372	3.2	Forest	7½	991	1.5
Kildavannan	3	117	5.0				
Scarrel	3	245	2.4				
Lenihall	1½	178	1.7				

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