

likely that the rebated Inchmarnock cist represents a short-lived tradition, and is probably early in that tradition, so that a date in the first half of the 16th century B.C. may well be that of its construction.

1. Lecture entitled *A Statistical Consideration of the Wessex Bronze Age* delivered to the Council for British Archaeology conference on *Problems of the British Bronze Age* on 17th December, 1960.

2. *Inventaria Archaeologica*, GB 25 (1958); jet necklace and bronze armlet from Melfort, Argyll.

THE ECONOMIC GEOGRAPHY OF THE ISLE OF BUTE

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Geographically the Isle of Bute is especially interesting because it differs so strongly from the other Scottish islands; among its immediate neighbours, it is larger and more varied than the Cumbraes, and less wild and more richly endowed than Arran: the Western Isles have no proximity to Glasgow and all that that implies: Orkney and Shetland suffer economically in much the same way as the Western Isles and also experience a more severe climate. For its livelihood Bute's populace depends upon three main occupations; agriculture, tourism and what can be loosely termed 'industry'. This study will examine these main features of the island's economy with reference to their development and to the problems which beset the island at present.

The economy of the Isle of Bute, now largely concerned with tourism, had to wait for its broadest development until the advent of the steam engine had made possible an adequate transport system with the mainland. This took place in 1815. But already at that time Bute, due to its position in the Firth of Clyde, was enjoying a certain amount of economic advancement denied to other islands. By two charters, one granted in 1400 and the other in 1584, Rothesay was erected to a Royal Burgh with the privileges of holding markets and fairs, freed from royal dues on imports and permitted to collect taxes on ships plying between the Cloch and Pladda. The development of herring fishing¹ and the establishment of a Customs House for Irish colonial trade² also added to the island's prosperity. By 1750 Rothesay had become a leading centre for the manufacture of a coarse linen cloth for the Indian market and in 1799 cotton spinning and weaving—machinery was established in an old flax mill. At the end of the 18th century two small shipbuilding

yards existed, building-stone and slate were quarried, and later a tile works was opened at Kilchattan Bay. In the middle of the century some doctors began advising their patients to visit the seaside for the sake of their health and so Rothesay supported a few 'sea-bathers'. Employment emanating from all these sources was of course supplemented by farming. This latter occupation had reached an advanced stage at an early date in Bute. The potato had been introduced in 1740, and steps taken by Lord Bute in 1758 and the years following gave his tenants leases, abolished steelbow and runrig, converted rents from kind to money, reduced the excessive numbers of miserable cattle and offered premiums for improved cattle breeds and the drainage of land.

Thus by the end of the 18th century Bute possessed a broad based economy, and supported a population of just over six thousand. In 1850 the island's economy was based on agriculture, fishing and its allied occupations, some extractive industries, the cotton industry and a growing tourist trade. The population had grown from 6000 in 1801 to just over 9300 and Rothesay was firmly established as the dominant settlement on the island, containing as early as 1820 70 per cent. of the island's population.

Since 1851, however, the island's economy has become less and less broad based. The cotton industry, which so greatly stimulated the growth of Rothesay, collapsed and finally petered out in 1880, fishing declined steadily due to its increasing concentration in the harbours of northern Scotland, and quarrying and shipbuilding faded from the scene. Bute was becoming more and more dependent upon a single occupation for the bulk of its income. Agriculture continued to thrive but by 1851 all the agricultural land was occupied. The island's population, due to the growth of Rothesay, increased between 1851 and 1951 by a further 33 per cent., and by 1951 Rothesay, reflecting its specialised concern with tourism and its function as the island's main communication centre, contained 80 per cent. of Bute's population.

Tourism

The development of tourism in the early 19th century was largely due to the introduction of steam navigation to the Clyde. Until 1815 communication to Bute from the mainland was restricted to two packets per week from Greenock and one ferry boat from Largs to Kerrycroy³. After 1815, however, regular steamer services were inaugurated between Greenock and Rothesay, and Largs and Rothesay and by 1837 seven vessels were also plying between Glasgow and Rothesay. Bute had several features which were favourable to the development of the tourist trade; its insularity, its easy accessibility from the growing industrial area of Glasgow and its attractive setting. A further help in the attraction of visitors was the discovery at Bogany Point in 1831 of a sulphuretted spring. At the period when the taking of a holiday by the sea was becoming popular and moreover easily achieved due to the development of public transport, Rothesay, because of its earlier development as an industrial centre was the only settlement in the western Clyde with enough buildings to accommodate an influx of seasonal visitors.

The town continued to thrive as a holiday centre and catered right up to the first world war for whole families who, with their servants, moved to Rothesay for a month or even for the length of the summer season; the importance of this movement is shown by the weekly publication in the island's three newspapers (only one survives now) of 'The Visitors List' during the summer months. After the first world war the difficulty of obtaining and maintaining a large domestic staff and the granting of holiday periods to a greater range of people changed the type of visitor from those who occupied whole houses in the Craigmare area of Rothesay to the industrial worker of the Clyde Valley who came for a week and merely occupied a room and a kitchen in a tenement. It was this type of visitor who maintained Rothesay's prosperity between the world wars; such people stayed for a shorter period than the earlier category of visitor but came in much greater numbers.

TABLE 1

Number of passengers embarking at Rothesay for selected years.⁴

1935 - 36	826,567	1953 - 54	651,390
1936 - 37	841,842	1956 - 57	722,481
1947 - 48	741,872	1958 - 59	667,432
1948 - 49	771,508	1959 - 60	630,573
1952 - 53	613,594	1960 - 61	613,832

The highest total of visitors to Bute occurred in 1937 but since that year no other total has come within 70,000 of that figure. Since 1946 figures have fluctuated but with few exceptions the main trend has been a general decrease in the number of visitors to the island, especially since 1957.

Since the end of the second world war more and more people in Britain have been moving out of their home area during the holiday period. And yet, despite this, the number of people visiting Bute has decreased and this of course has had serious repercussions on the island's economy. There are several reasons for the decline of the Isle of Bute as a holiday centre and there are mainly the result of recent changes in income and outlook.

Previous to the second world war and in the period just after its close, most people with a regular holiday were financially only able to go a short distance from their home area. The Isle of Bute was therefore a great attraction. The comparatively inexpensive steamer journey from Glasgow to Rothesay was in itself a pleasant start to the holiday and Bute had all the attractions that a holiday centre required at that time. But the concept of a holiday centre has changed quickly in recent years.

A visit to Bute's attractions is now easily accomplished at any weekend, especially during the summer when steamer sailings are numerous (Fig.2). The greater spending power of the general public, which makes such weekend entertainment possible, and the removal of the immediate post-war foreign currency restrictions has also led to a greater choice of holiday possibilities. The once exciting trip to Bute has now been replaced by journeys to centres on the mainland of Europe — Costa Brava, Majorca, southern France, Italy and

Austria. This is not only a result of the allure of a continental holiday but also of the desire for sunshine. In the early 19th century Rothesay was called the Montpellier and Bute the Madeira of Scotland but today's holidaymakers are more often in search of sun than the mildness which led to those reputations. Pennant⁵ said the evils of Bute were 'wind and rain, the latter coming in deluges from the west', and in this latter observation he was especially correct for between 1916 and 1950 no summer month on average had less than 3 inches of rain, while in some years monthly totals of 6 and 7 inches were recorded. On an average only 1,264 hours of sunshine are recorded per year or just over 28 per cent of the possible amount.

A further detraction from the island as a holiday centre at present is its lack of 'Blackpool type' amenities. Much of the spending power during the holiday period in Britain is concentrated in the hands of the factory-working youths, and for the majority of them the type of holiday provided by the holiday camp or by such towns as Blackpool with their mass 'enjoyment' facilities, is the most attractive. Bute has none of these features, with the result that most young holidaymakers do not consider it as a holiday centre. Due to the policy of the land owner in Bute, such development as would attract this type of holidaymaker with his great spending power is never likely to materialise. This is a serious feature to those whose living depends upon tourism, and Bute, unlike Arran, cannot as a compensating factor attract people who prefer a holiday in an unspoiled and scenically spectacular area.

A further change in holiday habits of recent years, especially by the British in Britain, has been the growing importance of the use of the car and the holiday which involves moving from one centre to another. Proof of this comes from the figures for the number of cars carried by steamers from Wemyss Bay to Rothesay. Until October 1954 the passenger steamers provided the only method of transporting a car across the Firth of Clyde and these boats could only discharge a car if the tide was favourable. But in October 1954 a new type of boat appeared on the Clyde —

the 'Dual-Purpose Ferry', capable of carrying up to 20 vehicles and possessing an electrically operated lift which allowed their discharge at any state of the tide.

TABLE 2

Number of vehicles carried between Wemyss Bay and Rothesay

1954	923
1955	12,778
1956	17,290
1957	18,989
1958	21,999
1959	24,151
1960	25,661 ⁶
1961	28,813

The rise in the number of visitors bringing their car to the island points to this different phase of holiday-making having reached Bute; the whole families who came to Bute in the past for a week or a fortnight, and of whom large numbers are no longer coming, are merely being replaced by families who come to the island and stay for a night or two at the most before moving on to a new centre. The Dual-Purpose Ferry has made it possible for more cars to visit the island but it has removed the inclination for people to remain for a long period. Taken together, these factors have led to a decrease in the volume of real income derived from the tourist trade.

A further feature which is more important from the point of economic unbalance is the concentration of visitors to the island during the Glasgow Fair fortnight. This means that the capacity occupation of boarding houses and the maximum use of shops and cafes all occur in a very short period. The recent agreement between labour and management to stagger holidays in certain industries in the Midlands of England might become the national trend and of course this would help the tourist industry of Bute to a certain extent.

Any examination of the holiday trade in Bute discloses the extreme importance of Rothesay. The only other settle-

ment of any size on the island, Port Bannatyne, accommodates a certain number of visitors, as do the villages and farmhouses, but by far the greatest number stay within the Burgh of Rothesay. The concentration there is of course only to be expected. The transport system, both by land and sea, is centred on Rothesay (Figs. 1 and 2), and it is easy to visit other parts of the island from the town and also possible to take steamers to other areas in the Clyde region. Rothesay too has the main shopping centre and the few places of entertainment that exist on the island.

Farming

Unlike many other areas of Britain, the agricultural economy of the island has not undergone any great change during the last hundred years; the development of the tourist industry merely led to the consolidation of the farming pattern which had been in existence in varying degrees of intensity since about 1800. Farm output meets the local demand for livestock, milk and potatoes but most market produce and all fruits have to be imported from the mainland; the island also exports oats and livestock and supports a creamery from which cheese is exported. The agricultural production is effected by about 11 per cent of the island's population. The dominant feature of the island's agricultural picture is animal husbandry, a dominance which varies in emphasis according to several interlocking features. The island can be divided into three major morphological regions (Fig.3) and these are reflected very strongly in the land use pattern (Fig.4).

No part of the island reaches a thousand feet and it is perhaps unconventional to refer to any area as 'highlands'. Certain parts of the island, however, when regarded in a local sense do form highlands, and from the farming point of view are certainly regarded as such. The head-dyke is everywhere below 350 feet, and above it the land is given over to sheep, highland cattle and grouse. Of the Highland regions the Northern (3A) is the largest and when the Central (3B) and Southern (3C) are added provides just over 50 per cent of the island's rough pasture. The Highlands support siliceous grasses, heather and cotton grass,

for apart from the Southern Highlands slopes are rarely over 5° and this coupled with an annual rainfall of between 50 and 60 inches encourages poor drainage and growth of peat; in fact the pasturing of sheep is only possible as a result of extensive drainage cuts. All of the Highlands are suffering badly from bracken encroachment and several methods, including the introduction of highland cattle and the spraying of the hillsides with a selective killer, have been used to counteract it.

The improved portion of farmed land occupies 38 per cent of the island's total area, and of this improved land 72 per cent is under grass — 40 per cent being permanent pasture. The rest of the arable land is devoted to oats and roots, which fit in with the predominant picture of animal husbandry. The small percentage of land (far less than 1 per cent) devoted to grass mown for winter feeding reflects to a large extent the mildness of the climate, which allows the cattle to remain in the fields for by far the greater part of the year. In both North Bute and Kingarth parishes (92 per cent of the island) dairy-cattle outnumber beef-cattle by at least five to one. Potatoes, although occupying a small acreage, represent an important cash crop.

The differing combinations of soils slopes and relief affect the detailed farming picture considerably. Most of the arable land is confined to the Higher Raised Beaches (1A), being especially prominent in the Ettrick-Kames (1A²), St. Ninian's (1A³) and Stravanan-Kilchattan (1A⁴) sections. The Dissected Platforms of North Bute (2A) and Kingarth (2B) do support some arable, especially where the slopes are between 2° and 4° , and in the case of North Bute, where schists are overlain by boulder clay. Permanent pasture tends to occupy the steeper slopes of the Dissected Platforms area. It is also worth noting that it is rare for arable land to appear on the rocky Lower Raised Beaches (1B): this area is usually given over to woodland or rough pasture, except where it has been used for roads or building.

Two main classes of farm are found on the island — the sheep farm and the dairy farm; each of these can be subdivided depending upon the particular emphasis put on sheep

or dairy-cattle as against other activities. The subdivisions are reflections of the farms' location with regard to morphological regions.

The purely sheep farms are located in the Northern Highlands (3A) and the Southern Highlands (3C). Flocks of 1000 sheep are kept on the rough pasture and the farms are over 150 acres in extent, with very little arable land.

Between the sheep and the dairy farm is one which has land in both the Highlands and the Dissected Platforms area. Milch-cattle and beef-cattle are raised, but flocks of up to 600 sheep are important in the farm economy.

The rest of the farms are largely devoted to dairying. This class of farm exhibits two main subdivisions which differ mainly in their numbers of milch-cattle and the amount of land devoted to potatoes. The first subdivision is provided by the farm with a strong emphasis on milch-cattle. Such farms possess herds of up to 40 milch-cows and anything from 20 upwards of followers. Arable fields are not numerous, generally one or two in each of oats, turnips or potatoes, while the rest of the land is under permanent and rotation pasture. The general rotation is three years cropping followed by four years ley. Oats and turnips are used as supplementary feed, and when stock numbers are high other winter feed is imported from the mainland. Potatoes are the only crop sold.

The second subdivision is made by reference to the greater importance of stock rearing and of potatoes. Farms of this type usually lie in the Lowlands, where the best potato lands are to be found⁷. These are given over to an exhausting rotation — usually four or five years of cropping and only two years ley.

The large number of rather small farms, 36 per cent of the farms in Kingarth Parish are under 15 acres, reveals the importance of dairying. Ease of communication within the island and the fact that no farm is a great distance from Rothesay have allowed the farms which are edaphically best suited for permanent pasture to concentrate on the development of dairy herds. The potato farms, however, although within reach of the milk market tend to specialise on the

island's one cash crop because climatically the island is suited to the growing of early potatoes and because the farms themselves, largely located on the Old Red Sandstone belt of Kingarth or in the Lowlands, have a large percentage of their land in sandy-loamy soils. Again the ease of communications within the island and the ferry from Rhubodach to Colintrave on the mainland of Argyllshire have allowed a comparatively easy access to the mainland markets in the Midland Valley of Scotland.

Industry

The border line between industry and other forms of economic activity, especially in rural areas such as this, is conventional rather than real. The term here is only intended as a convenient grouping for those elements in the economy which lie outside farming and tourism. Formerly there were several industries on the island but with the era of improved transport and mechanical-aids they were killed and now only signs or remnants exist.

Fishing and its allied pursuits now provide employment for only very few people. Rothesay and Port Bannatyne once supported large fishing fleets which were at their maximum strength c. 1820. A small source of income is obtained by a few people in the gathering of shell-fish from the western shores of the island, and these are sent to Billingsgate Market in London. Associated with the fishing were cooperages and kippering factories which employed almost 100 people at the peak of the fishing — this branch is today only represented by one small high-grade kippering factory in Rothesay.

The more arduous and precarious living afforded by the herring fishing, which took place during the period July-October, was abandoned for the easier work of providing boating facilities for the tourists, especially after 1840, and from this time there have never been more than 100 Bute men engaged in herring fishing.

The extractive industry of Bute was, like the fishing, at one time very flourishing. Quarrying for building stone and slate was once important as is evidenced by the large number of abandoned quarries throughout the island. Local

stone and slate from the phyllite bands were used in the island's buildings but now materials are imported from the mainland, and only a few quarries are occasionally worked for road metal.

The source of power provided by Loch Fad led to the founding on Bute of what is claimed to be the first cotton mill in Scotland (1778). By 1785 the mill held 1000 spindles and 20 spinning jennies, and by 1815 following upon the increase of the catchment area of Loch Fad by artificial water cuts⁸ there were two mills holding 16,000 spindles and employing 700 hands. 200 of these employees worked on hand looms which were scattered widely in cottages — in Rothesay, Port Bannatyne, Largs, Millport, Lochgilphead and Tarbert. The period 1840-50 saw a great expansion in the industry. Power looms were introduced and by 1855 the trade was at its peak with five firms employing 1215 hands with 43,000 spindles and 1015 looms. From this peak however the industry dwindled and was dead by 1880, at first not wanting and then unable to use modern methods or to compete with the better located factories on the mainland. Recently a high-grade hand-woven tweed industry has been established but, like the fishing industry, its effect on employment is negligible.

Shipbuilding on a small scale was once a flourishing trade, with yards both at Rothesay and Port Bannatyne, but with the introduction of steam power, which heralded an age based on iron and coal⁹, of which Bute has neither, this industry, like that of cotton and fishing, also failed. Today several small boatyards can be found on the island: a little boatbuilding is undertaken but they exist mainly for the convenience of holiday yachtsmen, providing summer repairs and winter storage facilities.

Conclusion

The population problems of the far western isles of Scotland are well known and have caused much concern in many circles, but it may not be widely realised that depopulation is a feature which exists on the Isle of Bute. Until 1961 the population of the island had continued to increase despite a long standing natural decrease. Recently, how-

ever, absolute population figures have fallen and this is very marked in Rothesay which holds 80 per cent of the island's population.

TABLE 3

Population of Rothesay for selected years since 1951

1951	10,141
1953	9,279
1957	8,934
1959	7,232
1961	7,157

Of this drop in population approximately 1000 are accounted for by the departure of the Third Submarine Squadron from Rothesay Bay. When this total has been deducted, however, the island has in 10 years lost nearly a further two thousand inhabitants. This loss is due to unemployment problems and the lure of the mainland towns where the type of life and work available has strong appeal for the younger generation. It seems that factors inherent in the geographical aspects of the habitat are conspiring to turn the population of Bute and especially of Rothesay into a middle-aged community. Of the total population, people over the age of fifty form one third. The actual overall loss of young people from the island is also masked by the fact that Bute is getting a certain number of replacements for the younger age groups by immigration of people who have retired. At the 1951 census Bute was one of the few counties in Scotland which had gained in population due to immigration; less than half of the population was born on the island, the rest coming from every county in Scotland and many from England, Ireland, and Wales as well as from overseas.

The island's real need, if depopulation is to be arrested, is the establishment of light industries such as the existing creamery and woollen-mill, but Bute's insularity makes this economically unattractive. Regardless of the level of freight charges to and from the island goods produced there will always cost more than those produced on the mainland — import of raw materials, export of finished goods and the

frequent handling of finished products at factory, harbour¹⁰ and railhead all add to their final cost.

It is difficult therefore, having viewed the position of the tourist industry and the possibility of setting up light industries, to see an end to the employment problem which is causing the loss of considerable numbers of the island's population. The seriousness of this lack of work, especially in winter is not only reflected by depopulation but also shown by the large numbers of unemployed registered at Rothesay Labour Exchange. Despite the recent drop in population, unemployment figures have not dropped as to the same proportion, in fact the number of unemployed in the first four months of 1961 was greater than that of 1957 and 1958. Even the number of summer unemployed, which started to drop in 1954, rose again in 1959, 1960 and 1961.

The overall picture of the economy of Bute reveals the dominant nature of the tourist trade with the resultant narrowing of the economic base. This 'monocultural' activity has suffered recently from the change of habits of the British holidaymaker and as a result Bute might be considered as a depressed area. The only stable part of the economy is that provided by agriculture, and if it were not for the production of cheese the important dairying branch, developed to a high pitch at first under the stimulus of an increased demand for milk in the summer months, would also have to be modified.

ACKNOWLEDGEMENTS

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NOTES

- 1 See J. E. REID, *History of the County of Bute* (1864), 100-101.
- 2 At this period all foreign imports into Ireland had to be landed first upon the British mainland.
- 3 The present settlement of Kerrycroy, a Green Village and therefore a type foreign to Scotland, came into existence in the early 19th century replacing an earlier coastal settlement removed during an extension to the grounds of Mount Stuart.
- 4 Unfortunately no count of visitors was made prior to 1936. The

figures given in this table refer to embarking passengers only. No count of disembarking passengers is taken but as Rothesay is the only effective exit from or entrance into Bute this fact does not alter the validity of the figures which refer to the period 1st October to the 30th September.

5. T. PENNANT, *A Tour of the Hebrides* (1772), 183.
6. Of the 25,661 vehicles carried over the section Wemyss Bay/Rothesay during 1960, 21,161 were private cars.
7. Despite the high rate of local unemployment the potatoes are harvested by gangs of migrant Irish potato-pickers.
8. These water cuts were engineered by Robert Thom, who was also responsible for the ingenious system of channels behind Greenock.
9. Coal can be found on the island but the seam is thin and difficult to work. See J. BLAIN, *History of Bute* (1880), 14-17.
10. A further strain on the economy of the island is the upkeep of the piers. The Western Isles get government grants as Crofting Communities, while the piers of the mainland belong to British Railways. No such aid comes to Bute, with the consequence that dues are charged on all incoming parcels and goods.

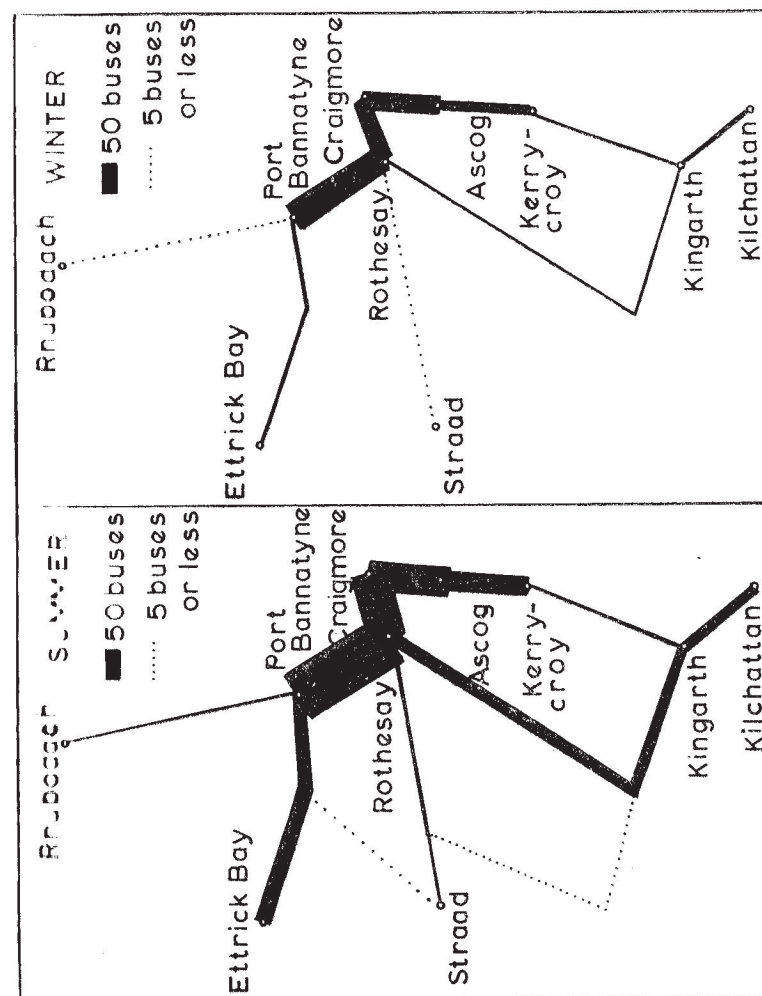


FIGURE 1. The number of service buses per day to and from Rothesay and other settlements in summer and in winter.

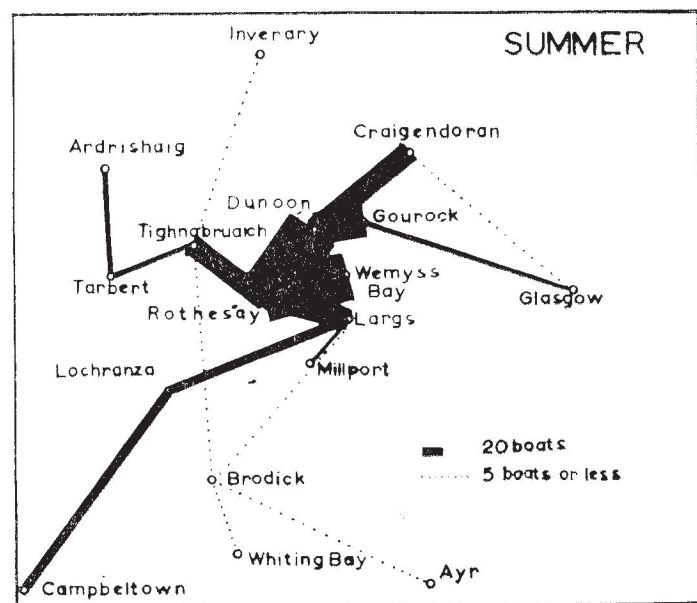
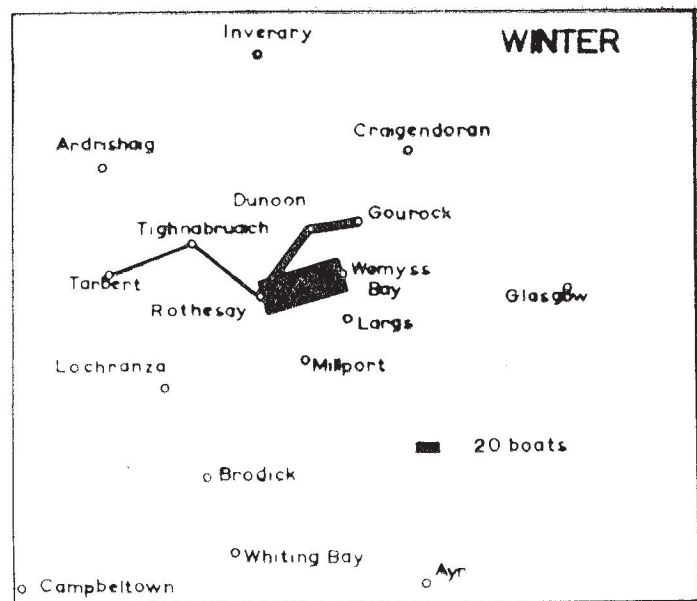


FIGURE 2. The number of passenger boats per week to and from Rothesay and other Clyde ports in winter and summer. Only unbroken journeys to and from Rothesay are included.

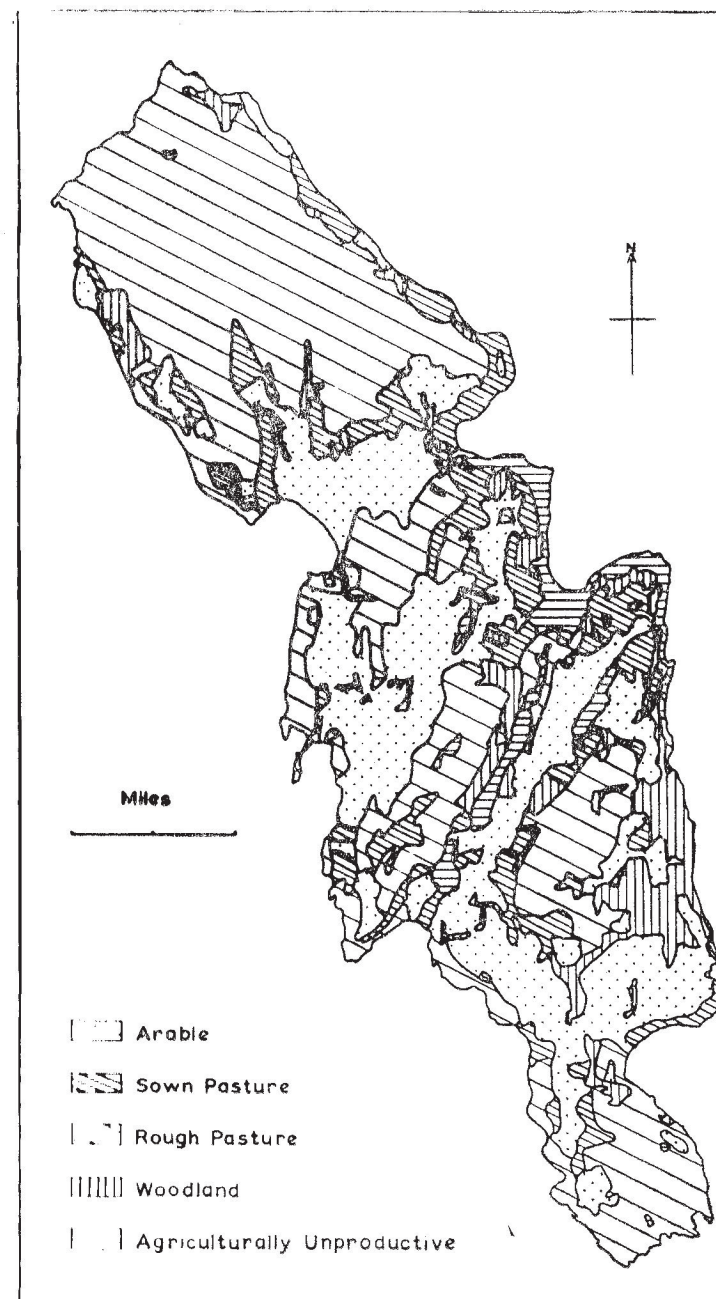


FIGURE 3. Morphological regions of the Isle of Bute.

THE LOCH RYAN OYSTER BEDS

By R. H. MILLAR, Ph.D.

The most important oyster bed in the south-west of Scotland is in Loch Ryan. Oysters are native in this area, and the presence of shells in a pre-historic kitchen midden at Corsewall suggests that these and neighbouring beds provided food for the inhabitants of Wigtownshire in ancient times. Boece, writing in the 16th century, noted the abundance of oysters in Loch Ryan and Luce Bay, and in 1701 William III granted the oyster rights to the Wallace family, who still retain control of the beds. When the Old Statistical Account was compiled, however, in 1791-99, there seems to have been no organised fishery, for it is stated there that oysters "might be got in great quantities would people drag for them." Although no mention is made of a fishery in the New Statistical Account (1845), it is known that one existed early in the 19th century. In the second half of that century fishing became more intensive and at one time as many as 30 boats were engaged in dredging. Between 1890 and 1900 from 200,000 to 400,000 oysters were being taken annually, but the greatest harvests were in the years just before the First World War, when over a million oysters were sold in a season. This seems to have been overfishing, and the yield from the beds declined steadily until 1954, when the fishery became uneconomic.

When this fishery was flourishing, in the early part of the present century, a steam boat and several smacks were working the beds, and, ashore, large concrete tanks had been built for storing and cleansing the oysters. The decline and final collapse of this industry marked the end of oyster fishing in Scotland, which had once been carried on at several commercially profitable beds on the east and west coasts and in the islands.

This unfortunate situation has interested the Scottish Marine Biological Association for a number of years, and

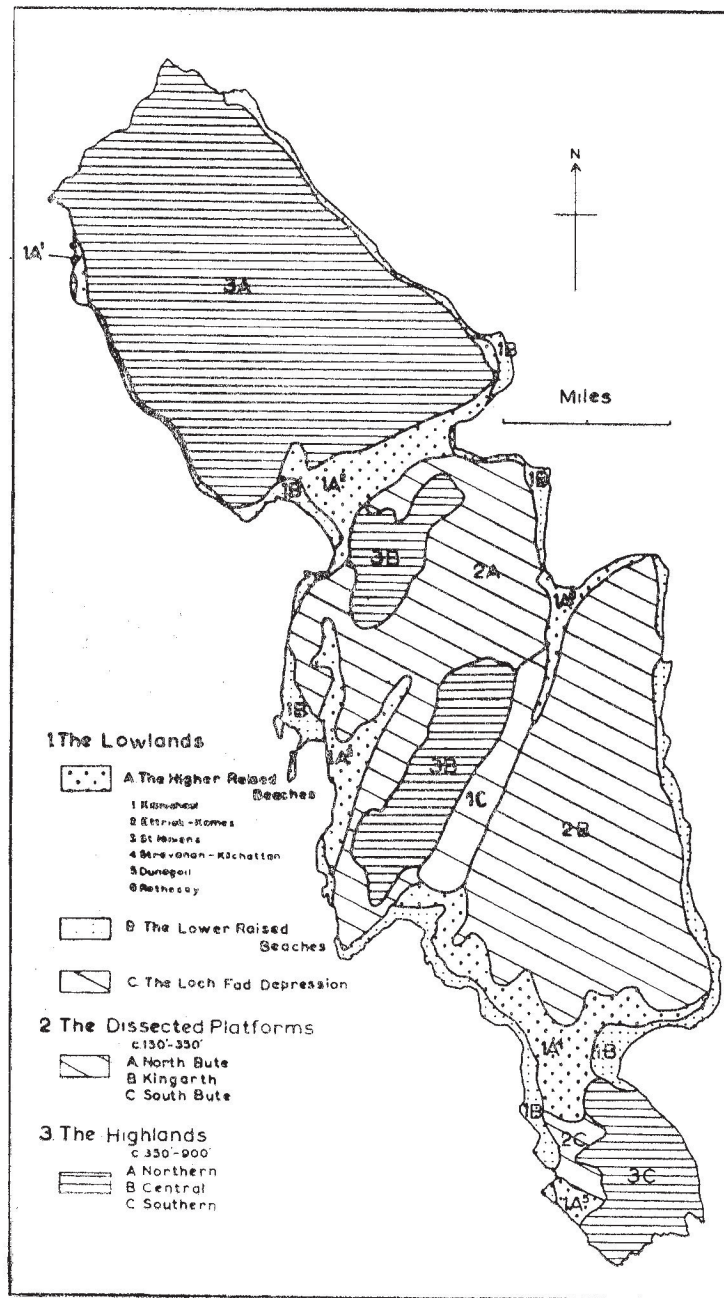


FIGURE 4. The land use pattern of the Isle of Bute.