
We have already seen that the southern boundary of the county coincides approximately with the watershed. From the south-eastern portion of the shire to the Lochwinnoch Gap the watershed is slightly north of the boundary, and thus a narrow strip of the county drains into Ayrshire. From the Hill of Stake streams radiate out in all directions. The moors north of the Hill of Stake form a divide between the short streams flowing to the Firth, and the innumerable burns draining to the east, chiefly into the Gryfe. There is a prevalent but mistaken belief that a watershed must be a range of hills, or at any rate must stand well above the level of the surrounding country. In many cases this is not so. The watershed may be a flat marsh, and one may sometimes walk right across an important watershed without noticing any change of slope whatsoever. This is illustrated by the watershed in the two chief Renfrewshire valleys. In the Loch Libo Gap the divide occurs between Neilston and Caldwell, but it would be difficult to say exactly where, for the ground is apparently level. The case is even more striking in the Lochwinnoch Gap, where the watershed practically disappears; for Castle Semple Loch draining north, and Kilbirnie Loch draining south are frequently connected by tiny natural canals. It is an excellent illustration in miniature of what we find on a gigantic scale in South America, where the basins of the Orinoco and the Amazon are connected by the Cassiquiare.
Practically the whole shire is drained by three streams and their tributaries, the Gryfe, the Black Cart, and the White Cart. The Black Cart flows from Castle Semple Loch, and in parts of its course resembles a canal as much as a river. It is a sluggish stream that falls less than 90 feet in a length of 10 miles. The Gryfe rises on Creuch Hill and flows through the Gryfe Reservoir. In its upper course it traverses the bleak uplands that form the northern part of the Kilbarchan Hills. Lower down, Strathgryfe is a pleasant vale, fertile and in parts richly wooded. There is good trout fishing to be had, although the waters are preserved. The White Cart is the classic river of the county. It rises among the moors of Eaglesham near the junction of Ayr, Renfrew, and Lanark,
and for several miles it forms the boundary between the two latter counties. It flows through Busby past the print-works that now stand empty and silent, mementoes of the days when trade was better. Northwards still the stream flows past the old castle of Cathcart, the origin of which is lost in the mists of time, but which was a strong place in the days of Wallace. Camphill forces the river to swing aside to the west through the policies of Pollok and past the old castle of Crookston to Paisley. As it enters the town it turns north again, and after receiving the Black Cart on its left bank it joins the Clyde opposite Clydebank.

In its upper and middle reaches the scenery of the White Cart is almost invariably pleasing, and in places is even beautiful. The banks are richly wooded, and fine mansions are dotted here and there along the valley. It has been a very home of the muses, and has inspired perhaps more bards than any other stream in Scotland. Its praises have been sung by Burns and Tannahill. Upon its banks Thomas Campbell spent the summers of his youthful years, and retained tender memories of these till his latest days—

"O scenes of my childhood, and dear to my heart,  
Ye green waving woods on the margin of Cart,  
How blest in the morning of life I have strayed  
By the stream of the vale and the grass-cover'd glade."

Christopher North received his early education in this locality; and in A Summer in Skye, Alexander Smith has given us a sketch of this district, one of his boyhood's
Rouken Glen: The Falls
haunts. Pennant declared that at the junction of the Cart and the Gryfe the scenery was "the most elegant and softest of any in North Britain." But, alas, here as elsewhere, man strives his utmost to pollute the fair river with pestilential sewage and every form of industrial waste. But in this respect a better day is dawning, thanks to the

enterprise of Glasgow, which shines the brighter against the black background of indifference shown by some Renfrewshire communities.

Some of the smaller valleys are of considerable interest and beauty. Devols Glen near Port Glasgow is not only charming in itself, but possesses a waterfall that will bear
comparison with many more widely known. The Waulkmill Glen near Barrhead, and the Rouken Glen in Glasgow's new pleasure ground, are as pretty bits of stream scenery as the heart of man could desire, and their charm is enhanced by their nearness to large industrial centres.

We are apt to forget that for a short distance—between Whiteinch and Yoker—the Clyde is purely a Renfrewshire river. But how different from the days of old, before human skill and perseverance had changed the very face of nature! It is exactly the Renfrewshire part of the river that has been altered most. Before Glasgow had transformed it, the Clyde here was broad and shallow, and split up into several branches. In the middle of the seventeenth century there were eight islands between the Kelvin and Erskine Ferry. The map on p. 26 gives a good idea of the appearance of the river at this time. It is from a map published at Amsterdam in 1654, and reprinted in Crawfurd's *History of Renfrewshire*. "Whyt inch" is now part of the north bank of the river, and King's inch is no longer separated from the royal burgh by a branch of the Clyde, although both districts retain their old names of inch or island. The river is now half a mile distant from Renfrew, yet the title-deeds of some of the houses still give the Clyde as the boundary of their gardens.

Lakes are numerous in the upland parts of the shire, many of them being utilised as reservoirs for the industrial centres of the lowlands. Lakes in fact are a characteristic feature of the Renfrewshire type of hills. As we have seen, the hills are flat-topped with an undulating
Reproduction of part of a map drawn by the Dutch cartographer Blaeu, and published in 1654.
surface, and thus the hollows of the table-land form natural receptacles for collecting the drainage of a fairly extensive area. Dotted here and there all over the hills of the county they occur, and their presence renders pleasing a type of scenery that otherwise would be bleak and monotonous. Loch Thom and the Gryfe Reservoirs form a charming little group of lakes within easy reach of Greenock and Port Glasgow. The Balgray Reservoir near Barrhead belongs to the Corporation of Glasgow, and with its beautifully kept surroundings, overlooked by the romantic towers of Pollok Castle, it makes a charming picture. It would be tedious to enumerate all the lochs dotted everywhere over the hilly portions of the shire. Their positions and names can best be seen from the map on the front cover.

The valley lakes present some special points of interest. We have seen that Loch Libo and Castle Semple Loch occur in peculiar valleys of the rift type; long, narrow lakes, indeed, being characteristic of such valleys. These lochs undoubtedly occupied a much greater extent in former times than they do now. South of Castle Semple Loch there was formerly another lake called Barr Loch, which was drained in the eighteenth century. Castle Semple Loch is now a mile and three-quarters long and half a mile broad, but Hamilton of Wishaw writing 200 years ago states that it was then three miles long, while Principal Dunlop writing a little earlier gives the dimensions of “Lochquhinnoch” as four miles by two miles. Again in the seventeenth century map of Renfrewshire already referred to we find “Loch Whinnoch” and the
"Loch of Kilbyrny" connected by a narrow neck of water. But it is useless to pile evidence on evidence for what is a fairly obvious fact. It need only be added that in flood-time we get a good idea of the appearance of the valley in former times. For many miles there stretches a long sheet of water, continuous save where a road or a railway embankment cuts across the temporary lake like the dykes of Holland. The original great lake probably drained into the sea at Irvine. But when the Black Cart succeeded in cutting through the rock barrier near Elliston, the lake waters would be carried off to the Clyde, the level would be lowered, and previously submerged river deltas would then divide the original sheet of water into a chain of lakes.

6. Geology and Soil.

The rocks are the earliest history books that we have. To those who understand them they tell a fascinating story of the climate, the natural surroundings, and the life, of a time many millions of years before the foot of man ever trod this globe. They tell of a long succession of strange forms of life, appearing, dominating the world, then vanishing for ever. Yet not without result, for each successive race was higher in the scale of life than those that went before, till man appeared and struggled into the mastery of the world.

The most important group of rocks is that known as sedimentary, for they were laid down as sediments under