

would doubtless, ere this, have been settled. It is not, however, always that the wooded land is capable of cultivation along the sea-coast; on the contrary, the reverse is the rule; the greater portion of the land on the southern, and nearly all on the western coast, as far as it has yet been examined, consisting of barren rock, barely affording sufficient holding ground to the stunted timber with which it is covered.

The geological structure of the island corresponds with its physical aspect. The prevailing formation is that generally known as the gneiss and mica-schist system: these rocks produce a broken and rugged surface, without being attended with any picturesque effect. Along the sea-coast on the eastward, from Nanaimo to Saneteh, the principal surface rock is sandstone of the coal formation. From Saneteh to Esquimalt gneiss prevails, diversified with beds of dark-coloured limestone. Westwards of Esquimalt mica slate occurs, whilst from Rocky Point to Port St. Juan the principal rocks on the sea-coast belong to the clay slate and greywacke systems, interspersed however at intervals, few and far between, with cliffs of a white coloured close-grained sandstone.

These strata of sandstone lie generally tolerably level, with a dip of about 7° to the south; they are covered with beds of lightish yellow finely laminated clay, of from 100 to 20 feet in thickness, over which is generally to be found a layer of from 2 to 4 feet in thickness of rich black vegetable mould; the sandstone beds do not occur often on the south coast, seldom extend at a time for more than 2 miles along it, and in no case that I know extend beyond that distance into the interior. At Soke harbour the rocks on the east side are a coarse-grained highly-indurated greywacke, interspersed with crystals of hornblende and iron pyrites; on the west side a tolerably level bed of sandstone reaches to a distance of about 1 mile inland; at the back of this rises an amorphous mass of hornblende schist, which reaches an elevation of 700 feet. Ascending the bed of Soke river, we pass for a mile and a half through the sandstone strata, these again give place to greywacke. About $4\frac{1}{2}$ miles up, a dyke of greenstone runs across our course, over the irregular traps or steps in which the river precipitates itself in a series of foaming cataracts: this irruptive mass runs in a north-west south-east direction, and is about 2 miles in thickness. After passing it, the slaty formation again presents itself, the quality being a close-grained chlorite slate of a bright green colour. The stratification is not clearly defined in this rock, but the general dip may be about 30° , the direction being to the south-west. At 10 miles up the river we come to a beautiful blue fine-grained argillaceous slate, with the cleavage very clearly and regularly expressed. The surface of these rocks has been so broken and

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