

the tropics, as well as in the temperate zone. The violent winds of Neiva are not the effect of a repercussion of the trade-winds; they rise where those winds cannot penetrate; and if the mountains of the Upper Orinoco, the tops of which are generally crowned with trees, were more elevated, they would produce the same impetuous movements in the atmosphere as we observe in the Cordilleras of Peru, of Abyssinia, and of Thibet. The intimate connection that exists between the direction of rivers, the height and disposition of the adjacent mountains, the movements of the atmosphere, and the salubrity of the climate, are subjects well worthy of attention. The study of the surface and the inequalities of the soil would indeed be irksome and useless were it not connected with more general considerations.

At the distance of six miles from the island of Piedra Raton we passed, first, on the east, the mouth of the Rio Sipapo, called Tipapu by the Indians; and then, on the west, the mouth of the Rio Vichada. Near the latter are some rocks covered by the water, that form a small cascade or *raudalito*. The Rio Sipapo, which Father Gili went up in 1757, and which he says is twice as broad as the Tiber, comes from a considerable chain of mountains, which in its southern part bears the name of the river, and joins the group of Calitamini and of Cunavami. Next to the Peak of Duida, which rises above the mission of Esmeralda, the Cerros of Sipapo appeared to me the most lofty of the whole Cordillera of Parima. They form an immense wall of rocks, shooting up abruptly from the plain, its craggy ridge of running from S.S.E. to N.N.W. I believe these crags, these indentations, which equally occur in the sandstone of Montserrat in Catalonia,* are owing to blocks of granite heaped together. The *Cerros de Sipapo* wear a different aspect every hour of the day. At sunrise the thick vegetation with which these mountains are clothed is tinged with that dark green inclining to brown, which is peculiar to a region where trees with coriaceous leaves prevail. Broad and strong shadows are projected on the neighbouring plain, and form a contrast with the vivid light

* From them the name of Montserrat is derived, *Monte Serrato* signifying a mountain ridged or jagged like a saw.