

pampa and Guangamarca) by the Nevados of Viuda, Pelagatos, Moyopata, and Huaylillas, and by the Paramos of Guamani and Guaranga, towards the town of Loxa. The intermedial chain separates the waters of the Upper Marañon from those of the Guallaga, and over a long space reaches only the small elevation of a thousand toises; it enters the region of perpetual snow to the south of Huanuco in the Cordillera of Sasaguanca. It stretches at first northward by Huacrachuco, Chachapoyas, Moyobamba, and the Paramo of Piscoguannuna; then it progressively lowers toward Peca, Copallin, and the Mission of Santiago, at the eastern extremity of the province of Jaen de Bracamoros. The third, or easternmost chain, skirts the right bank of the Rio Guallaga, and loses itself in the seventh degree of latitude. So long as the Amazon flows from south to north in the longitudinal valley, between two chains of unequal height (that is, from the farms of Qui-villa and Guancaybamba, where the river is crossed on wooden bridges, as far as the confluence of the Rio Chinchipe), there are neither bars, nor any obstacle whatever to the navigation of boats. The falls of water begin only where the Amazon turns toward the east, crossing the intermedial chain of the Andes, which widens considerably toward the north. It meets with the first rocks of red sandstone, or ancient conglomerate, between Tambillo and the Pongo of Rentema (near which I measured the breadth, depth, and swiftness of the waters), and it leaves the rocks of red sandstone east of the famous strait of Manseriche, near the Pongo of Tayuchuc, where the hills rise no higher than forty or fifty toises above the level of its waters. The river does not reach the most easterly chain, which bounds the Pampas del Sacramento. From the hills of Tayuchuc as far as Grand Para, during a course of more than seven hundred and fifty leagues, the navigation is free from obstacles. It results from this rapid sketch, that, if the Marañon had not to pass over the hilly country between Santiago and Tomependa (which belongs to the central chain of the Andes) it would be navigable from its mouth as far as Pumpo, near Piscobamba in the province of Conchucos, forty-three leagues north of its source.

We have just seen that, in the Orinoco, as in the Amazon,