

existence of subterraneous cavities in the *yellalas* or rapids of the river Congo was discovered. The *pongo* of Manse-riche, which ought rather to be called a strait than a fall, ingulfs, in a manner not yet sufficiently explored, a part of the waters and all the floating wood of the Upper Marañon.

The spectator, seated on the bank of the Orinoco, with his eyes fixed on those rocky dikes, is naturally led to inquire whether, in the lapse of ages, the falls change their form or height. I am not much inclined to believe in such effects of the shock of water against blocks of granite, and in the erosion of siliceous matter. The holes narrowed toward the bottom, the funnels that are discovered in the *raudales*, as well as near so many other cascades in Europe, are owing only to the friction of the sand, and the movement of quartz pebbles. We saw many such, whirled perpetually by the current at the bottom of the funnels, and contributing to enlarge them in every direction. The *pongos* of the river Amazon are easily destroyed, because the rocky dikes are not granite, but a conglomerate, or red sandstone with large fragments. A part of the *pongo* of Rentema was broken down eighty years ago, and the course of the waters being interrupted by a new bar, the bed of the river remained dry for some hours, to the great astonishment of the inhabitants of the village of Payaya, seven leagues below the *pongo*. The Indians of Atures assert (and in this their testimony is contrary to the opinion of Caulin) that the rocks of the *raudal* preserve the same aspect; but that the partial torrents into which the great river divides itself as it passes through the heaped blocks of granite, change their direction, and carry sometimes more, sometimes less water towards one or the other bank; but the causes of these changes may be very remote from the cataracts, for in the rivers that spread life over the surface of the globe, as in the arteries by which it is diffused through organized bodies, all the movements are propagated to great distances. Oscillations, that at first seem partial, react on the whole liquid mass contained in the trunk as well as in its numerous ramifications.

Some of the Missionaries in their writings have alleged that the inhabitants of Atures and Maypures have been struck with deafness by the noise of the Great Cataracts