

but this is untrue. When the noise is heard in the plain that surrounds the mission, at the distance of more than a league, you seem to be near a coast skirted by reefs and breakers. The noise is three times as loud by night as by day, and gives an inexpressible charm to these solitary scenes. What can be the cause of this increased intensity of sound, in a desert where nothing seems to interrupt the silence of nature? The velocity of the propagation of sound, far from augmenting, decreases with the lowering of the temperature. The intensity diminishes in air agitated by a wind which is contrary to the direction of the sound; it diminishes also by dilatation of the air, and is weaker in the higher than in the lower regions of the atmosphere, where the number of particles of air in motion is greater in the same radius. The intensity is the same in dry air, and in air mingled with vapours; but it is feebler in carbonic acid gas than in mixtures of azote and oxygen. From these facts, which are all we know with any certainty, it is difficult to explain a phenomenon observed near every cascade in Europe, and which, long before our arrival in the village of Atures, had struck the missionary and the Indians.

It may be thought that, even in places not inhabited by man, the hum of insects, the song of birds, the rustling of leaves agitated by the feeblest winds, occasion during the day a confused noise, which we perceive the less because it is uniform, and constantly strikes the ear. Now this noise, however slightly perceptible it may be, may diminish the intensity of a louder noise; and this diminution may cease if during the calm of the night the song of birds, the hum of insects, and the action of the wind upon the leaves be interrupted. But this reasoning, even admitting its justness, can scarcely be applied to the forests of the Orinoco, where the air is constantly filled by an innumerable quantity of mosquitos, where the hum of insects is much louder by night than by day, and where the breeze, if ever it be felt, blows only after sunset.

I rather think that the presence of the sun acts upon the propagation and intensity of sound by the obstacles met in currents of air of different density, and by the partial undulations of the atmosphere arising from the unequal heating