

We have just seen that, in the Cueva del Guacharo, the water of the river is nearly 2° colder than the ambient air of the cavern. The water, whether in filtering through the rocks, or in running over stony beds, doubtless imbibes the temperature of these beds. The air contained in the grotto, on the contrary, is not in repose; it communicates with the external atmosphere. Though under the torrid zone, the changes of the external temperature are exceedingly trifling, currents are formed, which modify periodically the internal air. It is consequently the temperature of the waters, that of 16.8° , which we might look upon as the temperature of the earth in those mountains, if we were sure that the waters do not descend rapidly from more elevated neighbouring mountains.

It follows from these observations, that when we cannot obtain results perfectly exact, we find at least under each zone certain numbers which indicate the maximum and minimum. At Caripe, in the equinoctial zone, at an elevation of 500 toises, the mean temperature of the globe is not below 16.8° , which was the degree indicated by the water of the subterranean river. We can even prove that this temperature of the globe is not above 19° , since the air of the cavern, in the month of September, was found to be at 18.7° . As the mean temperature of the atmosphere, in the hottest month, does not exceed 19.5° ,* it is probable that a thermometer in the grotto would not rise higher than 19° at any season of the year.

* The mean temperature of the month of September at Caripe is 18.5° ; and on the coast of Cumana, where we had opportunities of making numerous observations, the mean heat of the warmest months differs only 1.8° from that of the coldest.