

used to the saddle. Though their appearance is very heavy, they pass lightly over the most slippery turf. We first stopped at a spring issuing, not from the calcareous rock, but from a layer of quartzose sandstone. The temperature was  $21^{\circ}$ , consequently  $1.5^{\circ}$  less than the spring of Quetepe; and the difference of the level is nearly 220 toises. Wherever the sandstone appears above ground the soil is level, and constitutes as it were small platforms, succeeding each other like steps. To the height of 700 toises, and even beyond, this mountain, like those in its vicinity, is covered only with gramineous plants.\* The absence of trees is attributed at Cumana to the great elevation of the ground; but a slight reflection on the distribution of plants in the Cordilleras of the torrid zone will lead us to conceive that the summits of New Andalusia are very far from reaching the superior limit of the trees, which in this latitude is at least 1800 toises of absolute height. The smooth turf of the Cocollar begins to appear at 350 toises above the level of the sea, and the traveller may contrive to walk upon this turf till he reaches a thousand toises in height. Farther on, beyond this band covered with gramineous plants, we found, amidst peaks almost inaccessible to man, a small forest of cedrela, javillo,† and mahogany. These local circumstances induce me to think that the mountainous savannahs of the Cocollar and Turimiquiri owe their existence only to the destructive custom practised by the natives of setting fire to the woods when they want to convert the soil into pasturage. Where, during the lapse of three centuries, grasses and alpine plants have covered the soil with a thick carpet, the seeds of trees can no longer germinate and fix themselves in the earth, though birds and winds convey them continually from the distant forests into the savannahs.

\* The most abundant species are the paspalus; the *Andropogon fastigiatum*, which forms the genus *Diectomis* of M. Palissot de Beauvais; and the *Panicum olyroides*.

† *Huras crepitans*, of the family of the euphorbias. The growth of its trunk is so enormous, that M. Bonpland measured vats of javillo wood, 14 feet long and 8 wide. These vats, made from one log of wood, are employed to keep the guarapo, or juice of the sugar-cane, and the molasses. The seeds of javillo are a very active poison, and the milk that issues from the petioles, when broken, frequently produced inflammation in our eyes, if by chance the least quantity penetrated under the eyelids.