

their own knowledge; but, valuable as were their communications, they are often calculated to excite rather than to satisfy the curiosity of the geologists. They mention, that similar effects, though in a less degree, had, about seven years before, accompanied an eruption of Carang Assam, a volcano in the island of Bali, west of Sumatra; but no particulars of that great catastrophe are recorded.*

Caraccas, 1812.— On the 26th of March, 1812, several violent shocks of an earthquake were felt in Caraccas. The surface undulated like a boiling liquid, and terrific sounds were heard underground. The whole city with its splendid churches was in an instant a heap of ruins, under which 10,000 of the inhabitants were buried. On the 5th of April, enormous rocks were detached from the mountains. It was believed that the mountain Silla lost from 300 to 360 feet of its height by subsidence; but this was an opinion not founded on any measurement. On the 27th of April, a volcano in St. Vincent's threw out ashes; and on the 30th, lava flowed from its crater into the sea, while its explosions were heard at a distance equal to that between Vesuvius and Switzerland, the sound being transmitted, as Humboldt supposes, through the ground. During the earthquake which destroyed Caraccas, an immense quantity of water was thrown out at Valecillo, near Valencia, as also at Porto Cabello, through openings in the earth; and in the Lake Maracaybo the water sank. Humboldt observed that the Cordilleras, composed of gneiss and mica slate, and the country immediately at their foot, were more violently shaken than the plains.†

South Carolina, 1811.—New Madrid.— Previous to the destruction of La Guayra and Caraccas, in 1812, earthquakes were felt in South Carolina; and the shocks continued till those cities were destroyed. The valley also of the Mississippi, from the village of New Madrid to the mouth of the Ohio in one direction, and to the St. Francis in another, was convulsed in such a degree as to create new lakes and islands. It has been remarked by Humboldt in his *Cosmos*, that the earthquake of New Madrid presents one of the few examples on record of the incessant quaking of the ground for several successive months *far from any volcano*. Flint, the geographer, who visited the country seven years after the event, informs us, that a tract of many miles in extent, near the Little Prairie, became covered with water three or four feet deep; and when the water disappeared, a stratum of sand was left in its place. Large lakes of twenty miles in extent were formed in the course of an hour, and others were drained. The grave-yard at New Madrid was precipitated into the bed of the Mississippi; and it is stated that the ground whereon the town is built, and the river bank for fifteen miles above, sank eight feet below their former level.‡ The neighbouring forest presented for some years afterwards “a singular scene of confusion; the trees

* Life and Services of Sir Stamford and Ed. Phil. Journ., vol. i. p. 272. 1819. Raffles, p. 241. London, 1830.

† Cramer's Navigator, p. 243. Pitts-

‡ Humboldt's Pers. Nar. vol. iv. p. 12.; burgh, 1821.