quartz; its mass is formed of small crystals of felspar, intermixed with crystals of amphibole. This rock of diorite is covered at its surface, by the effect of decomposition, with a yellowish crust, like that of basalts and dolerites. Serpentine, of a dull olive-green and smooth fracture, mixed with bluish steatite and amphibole, presents, like almost all the co-ordinate formations of diorite and serpentine (in Silesia, at Fichtelgebirge, in the valley of Baigorry, in the Pyrenees, in the island of Cyprus, and in the Copper Mountains of circumpolar America),* traces of copper. Where the diorite, partly globular, approaches the green slate of Malpasso, real beds of green slate are found inclosed in diorite. The fine saussurite which we saw in the Upper Orinoco in the hands of the Indians, seems to indicate the existence of a soil of euphotide, superposed on gneiss-granite, or amphibolic slate, in the eastern part of the Sierra Parime.

IV. Granular and micaceous Limestone of the Morros of San Juan.—The Morros of San Juan rise like ruinous towers in a soil of diorite. They are formed of a cavernous greyish green limestone of crystalline texture, mixed with some spangles of mica, and are destitute of shells. We see in them masses of hardened clay, black, fissile, charged with iron, and covered with a crust, yellow from decomposition, like basalts and amphiboles. A compact limestone containing vestiges of shells, adjoins this granular limestone of the Morros of San Juan, which is hollow within. Probably on a further examination of the extraordinary strata between Villa de Cura and Ortiz, of which I had time only to collect some few specimens, many phenomena may be discovered analogous to those which Leopold von Buch has lately described in South Tyrol. M. Boussingault, in a memoir which he has recently addressed to me, calls the rock of the Morros a "problematic calcariferous gneiss." This expression seems to prove that the plates of mica take in some parts a uniform direction, as in the greenish dolomite of Val Toccia.

* Franklin's Journey to the Polar Sea, p. 529.