

green, containing long crystals of vitreous feldspar, appears exposed. It is the real porphyrschiefer of Werner; and it would be difficult to distinguish, in a collection of stones, the phonolite of Parapara from that of Bilin, in Bohemia. It does not, however, here form rocks in grotesque shapes, but little hills covered with tabular blocks, large plates extremely sonorous, translucent on the edges, and wounding the hands when broken.

Such are the successions of rocks, which I described on the spot as I progressively found them, from the lake of Tacarigua to the entrance of the steppes. Few places in Europe display a geological arrangement so well worthy of being studied. We saw there in succession six formations: viz., mica-slate-gneiss, green transition-slate, black transition-limestone, serpentine and grünstein, amygdaloid (with pyroxene), and phonolite.

I must observe, in the first place, that the substance just described under the name of grünstein, in every respect resembles that which forms layers in the mica-slate of Cabo Blanco, and veins near Caracas. It differs only by containing neither quartz, garnets, nor pyrites. The close relations we observed near the Cerro de Chacao, between the grünstein and the serpentine, cannot surprise these geologists who have studied the mountains of Franconia and Silesia. Near Zobtenberg* a serpentine rock alternates also with *gabbro*. In the district of Glatz the fissures of the *gabbro* are filled with a steatite of a greenish white colour, and the rock which was long thought to belong to the grünsteins† is a close mixture of feldspar and diallage.

* Between Tampadel and Silsterwiz.

† In the mountains of Bareuth, in Franconia, so abundant in grünstein and serpentine, these formations are not connected together. The serpentine there belongs rather to the schistose hornblende (hornblend-schiefer), as in the island of Cuba. Near Guanaxuato, in Mexico, I saw it alternating with syenite. These phenomena of serpentine rocks forming layers in eurite (weisstein), in schistose hornblende, in *gabbro*, and in syenite, are so much the more remarkable, as the great mass of garnetiferous serpentines, which are found in the mountains of gneiss and mica-slate, form little distinct mounts, masses not covered by other formations. It is not the same in the mixtures of serpentine and granulated limestone.