

As the evening drew to a close, we reached a singular basin-like plain called the Valle del Yeso. It was covered by a little dry pasture, and we had the pleasant sight of a herd of cattle amid the surrounding rocky deserts. The valley takes its name of Yeso from a great bed, I should think at least 2,000 feet thick, of white, and in some parts quite pure, gypsum. We slept with a party of men who were employed in loading mules with this substance, which is used in the manufacture of wine. We set out early in the morning (21st), and continued to follow the course of the river, which had become very small, till we arrived at the foot of the ridge that separates the waters flowing into the Pacific and Atlantic Oceans. The road, which as yet had been good with a steady but very gradual ascent, now changed into a steep zigzag track up the great range, dividing the republics of Chile and Mendoza.

I will here give a very brief sketch of the geology of the several parallel lines forming the Cordillera. Of these lines, there are two considerably higher than the others; namely, on the Chilean side, the Peuquenés ridge, which, where the road crosses it, is 13,210 feet above the sea; and the Portillo ridge, on the Mendoza side, which is 14,305 feet. The lower beds of the Peuquenés ridge, and of the several great lines to the westward of it, are composed of a vast pile, many thousand feet in thickness, of porphyries which have flowed as submarine lavas, alternating with angular and rounded fragments of the same rocks, thrown out of the submarine craters. These alternating masses are covered in the central parts by a great thickness of red sandstone, conglomerate, and calcareous clay-slate, associated with, and passing into, prodigious beds of gypsum. In these upper beds shells are tolerably frequent: and they belong to about the period of the lower chalk of Europe. It is an old story, but not the less wonderful, to hear of shells which were once crawling on the bottom of the sea now standing nearly 14,000 feet above its level. The lower beds in this great pile of strata have been dislocated, baked, crystallized and almost blended together,