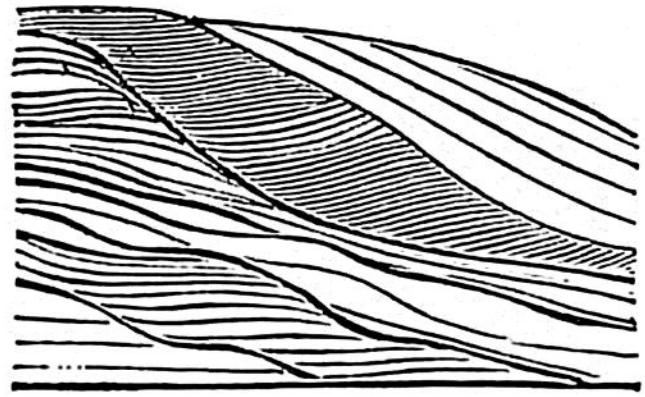
http://www.geology.19thcenturyscience.org/books/1859-Lyell-Elements/README.htm

Fig. 709.



Lamination of clay-slate, Montagne de Seguinat, near Gavarnie, in the Pyrenees.

nation of a coarse argillaceous schist which I examined in 1830 in the Pyrenees. In part it approaches in character to a green and blue roofing-slate, while part is extremely quartzose, the whole mass passing downwards into micaceous schist. The vertical section here exhibited is about 3 feet in height, and the layers are sometimes so thin that fifty may be counted in the thickness of an inch. Some of them consist of pure quartz.

There is a resemblance in such cases to the diagonal lamination which we see in sedimentary rocks, even though the layers of quartz and of mica, or of felspar and other minerals, may be more distinct in alternating folia than they were originally.

M. Elie de Beaumont, while he regards the greater part of the gneiss and mica-schist of the Alps as sedimentary strata altered by plutonic action, still conceives that some of the Alpine gneiss may have been erupted, or, in other words, may be granite drawn out into parallel laminæ in the manner of trachyte as above alluded to.*

If the mass were squeezed and elongated in a certain direction after crystals of mica, talc, or other scaly minerals were developed, these may perhaps have arranged themselves in planes parallel to those of movement, and a similar process may account for what the quarrymen call "the grain" in some granites, or a tendency to split in one direction more freely than in another. But, as a general rule, the fusion of the crystalline schists does not appear to have gone so far as to allow of motion analogous to that of lava or granite, and for this reason rocks of this class do not send veins into surrounding rocks. In the next chapter we may inquire at how many distinct periods the hypogene or metamorphic schists can be proved to have originated, and why for so long a time the earlier geologists regarded them as entitled to the name of "primitive."

* Bulletin Soc. Geol. de France, 2e sér. vol. iv. p. 1301.