

and partially overlies the "transition" rocks of that country, which yield trilobites, orthocerata, &c. in considerable abundance. Mr. Lyell has recently explored this district, and, fully confirming the important inference of Von Buch, that the sienite was of posterior date to these transition strata, observed those changes which are now known to be the frequent concomitants of the contact of igneous and stratified rocks. The limestone, usually of very dark colour, is turned into white marble, the schist into Lydian stone, and "sometimes into mica schist," of which Mr. Lyell saw one striking example at Grorud, north-east of Christiania. *Traces of fossils* are not unfrequently discoverable in some of the crystalline and *altered rocks* of the transition formation, so that the actual conversion of the latter into metamorphic strata is unequivocal. (Lyell, in *Brit. Assoc. Reports*, 1837.) The rocks here termed sienite are considered by Mr. Lyell to be (geologically speaking) of the granitic family; they seem to pass into trap porphyry, and divide the gneiss and less ancient schists in a very irregular manner, but do not spread widely over them in any part of the district. Tabular masses of igneous rocks are nowhere seen to spread over the fossiliferous rocks, except where they have assumed the usual aspect and characters of trap.

The oolitic system of strata, as described by De Beaumont, Necker de Saussure, and Brochant de Villers, in the Tarentaise, Dauphiné, and the valleys near Mont Blanc, puts on a very different aspect from that which is usual in the more level regions of Germany, France, and England; and this difference appears similar to some occurrences mentioned by Studer and De Beaumont, which are obviously dependent on the heat of contiguous granitic rocks. In the Tarentaise, siliceous limestones, micaceous quartz rocks, and gypsum, correspond to the lias and lower oolitic rocks of England; and contain the fossils common in these rocks. It is further remarkable, that at the Col du Chardonnet (Hautes Alpes), plants, supposed to be of species which