the relative proportions of the two minerals varying widely even in the same mass of rock. Each is arranged in lenticular wavy laminæ. The quartz shows great inconstancy in the number and thickness of its folia. It often presents a granular character, like that of quartz-rock, or passing into granulite. The mica lies in thin plates, sometimes so dovetailed into each other as to form long continuous irregular crumpled folia, separating the quartz layers, and often in the form of thin spangles and membranes running in the quartz. (Figs. 36 and 37.) As the rock splits open along its micaceous folia, the quartz is not readily seen save in a cross fracture.

The mica in typical mica-schist is generally a white variety; but it is sometimes replaced by a dark species. In many lustrous, unctuous schists which are now found to have a wide extent, the silvery foliated mineral is ascertained to be a mica (margarodite, damourite, etc.), and not talc, as was once supposed. These were named by Dana hydro-mica-schists. Among the accessory minerals, garnet (specially characteristic), schorl, felspar, hornblende, kyanite, staurolite, chlorite, and talc may be mentioned. Mica-schist readily passes into other members of the schistose family. By addition of felspar, it merges into gneiss. By loss of quartz and increase of chlorite, it passes into chlorite-schist, and by loss of mica, into quartz-schist and quartzite. By failure of quartz and diminution of mica, with an increasing admixture of calcite, it may shade into calc-mica-schist (see below), and even into marble. Mica-schist varies in color mainly according to the hue of its mica.

Mr. Sorby has stated that thin slices of some mica-schists, when examined under the microscope, show traces of original grains of quartz-sand and other sedimentary particles of which the rock at first consisted. He has also found indications of what he supposes to have been current-bedding or ripple-drift, like that seen in many fine sedimentary deposits, and he concludes that mica-schist is a crystalline metamorphosed sedimentary rock.[229] In many, if not in most cases, however, the foliation does not correspond with original bedding, but with structural planes (cleavage, faulting) superinduced by pressure, tension, or

[229] Q. J. Geol. Soc. (1863), p. 401, and his address in vol. xxxvi. (1880), p. 85. The apparent current-bedding of many granulitic and other metamorphic rocks is certainly deceptive, and must be due to planes of shearing or slipping in the mechanical movements which produced the metamorphism.