

there is then usually some difference between the original and secondary quartz. A quartz-felsite, for instance, abounds in original little kernels, or in double pyramids of the mineral, often inclosing fluid cavities, while the secondary or accidental forms usually occur in veins, reticulations, or other irregular aggregates.

Accessory minerals frequently occur in cavities where they have had some room to crystallize out from the general mass. The "drusy" cavities, or open spaces lined with well-developed crystals, found in some granites are good examples, for it is there that the non-essential minerals are chiefly to be recognized. The veins of segregation found in many crystalline rocks, particularly in those of the granite series, are further illustrations of the original separation of mineral ingredients from the general magma of a rock (see Book IV. Part VII. § 3).

In some cases minerals assume a concretionary shape, which may be observed chiefly though not entirely in rocks formed in water. Some minerals are particularly prone to occur in concretions. Siderite (ferrous carbonate) is to be found in abundant nodules, mixed with clay and organic matter among consolidated muddy deposits. Calcite (calcium-carbonate) is likewise abundantly concretionary. Silica in the forms of chert and flint appears in irregular concretions, in calcareous formations, composed mainly of the remains of marine organisms.

Secondary minerals have been developed as the result of subsequent changes in rocks, and are almost invariably due to the chemical action of percolating water, either from above or from below. Occurring under circumstances in which such water could act with effect, they are found in cracks, joints, fissures and other divisional planes and