

boulders in a three-foot stratum of analcite breccia. The matrix in which the boulders are embedded (field specimen) is composed of about 40 per cent bright flesh red analcite in irregularly shaped tetrahedral crystals up to an inch in diameter, usually but not fully regular in their crystal form, though often broken. The crystals are worn nearly to a spherical shape, doubtless by weathering action. These analcites are embedded in a fine-grained green matrix containing also a number of small dodecahedral melanite crystals. This tufaceous rock has probably a similar composition to the magma from which it was derived, the magma which magma is represented by the primary rock fragments now to be described.

Blairmorite, variety A, consists of bright flesh red phenocrysts of analcite up to an inch in diameter, evenly distributed throughout a dark olive green matrix, phenocrysts and matrix each forming half the volume of the rock. Rarely a light green phenocryst of glassy sanidine is to be observed, and occasionally small melanites are present.

The red analcite greatly resembles garnet in the field specimen, and can be distinguished from that mineral only with difficulty without microscopic or chemical tests.

In thin section the rock is seen to be composed of phenocrysts of analcite in a finely crystalline groundmass consisting of a second generation of analcite, ægirite-augite, nepheline, sanidine, and melanite, which are in turn embedded in an unresolvable matrix, which may be incipiently crystallized analcite, ægirite-augite, etc. Calcite, and perhaps chlorite are the secondary minerals noted.

The large analcite phenocrysts are faintly pink, homogeneous, and quite isotropic. Cubic cleavage is well developed, and faint, dust-like inclusions are seen along cleavage planes. Narrow rims of clear analcite border most of the phenocrysts, and this feature is described later under Variety B. Alteration of these large phenocrysts is frequent, and consists of a replacement by calcite, this replacement starting along cleavage cracks and continuing until in some instances the whole mineral is replaced.