

undoubtedly caused by some irregularities in the cooling of the original magma, for which it is now difficult to find a satisfactory explanation," and further on he writes, the "streaks show a tendency to merge into one another as though they had been produced by motion in a liquid or plastic mass."

The streaking is well developed at other areas, notably in the Saguenay anorthosite, near Chicoutimi, which shows all gradations, from the massive to the well banded.

The granulated variety is composed of large fragments of plagioclase, in a fine grained ground mass of the same mineral. The stages illustrating the transition from non-granulated to the above is shown in an excellent manner by three microphotographs. In the first the rock is massive, the plagioclase being twinned polysynthetically; there are no strain shadows and just a trace of granulation in the lower part of the section. In the next the felspar individuals are much cracked, giving off broken grains, the twin lines are twisted and strain shadows are present, but no foliation. The third shows the remainder of a large crystal of felspar in the centre of the field which has furnished the ground mass of smaller grains, presenting a distinct foliation. The strain shadows appear in the large grains, but not in the small ones, for as soon as the pressure is sufficient to break a particle from its parent mass, the strain ceases and the shadow consequently disappears. So it is only by having such examples as the last described that it is possible to say definitely how the granulation was produced. In this variety the plagioclase is white, the reason of it being that the motion caused by pressure allows the free play of the constituents of the rock, by which means the iron ore which was disseminated through the felspar in the form of small grains becomes concentrated in certain spots.

When weathered this rock resembles crystalline limestone in a remarkable manner. In the south-east arm the hills protrude through the drift, as white rounded knobs, thus giving to this section of the country a characteristic of landscape peculiar to itself.

Minor intrusions occur at Lakesfield, St. Jerome and in the townships of Kildare, Cathcart and Brandon. An interesting fact in connection with the position of the above rocks is that they occur along the edge of the Archean Protaxis, which, in Cambrian time, bordered on the ocean. The modern volcano follows the same law as its primeval prototype.

Considerable attention has been given to the economic geology, with the result that the following minerals have been found, some of which are of importance: Magnetite, ilmenite, bog ore, ochre, graphite, apatite, mica, garnet rock, crystalline limestone and anorthosite. The latter makes a good paving stone, and has been used for that purpose in Montreal. No traces of gold or silver were discovered,