

All rocks are either eruptive or sedimentary in origin, but such a primary division is useless in the present instance, where dynamic metamorphism has obliterated the dividing line and induced resemblances which force rocks of different origin into the same group on account of similarity of structure. Nevertheless it is to origin that we must look in deciding the more minute divisions.

We have therefore:—

- I. Unaltered eruptives.
- II. Much metamorphosed eruptives and elastics, generally schistose in structure, which may be embraced in the term *schist*.

Among unaltered eruptives are included all those rocks of primary igneous origin, in which the original structure and mineral constituents are unaltered or but slightly affected. They may be grouped and will be considered in the following order:—

- (1) Acid or potash-feldspar rocks: *Granite, syenite, augite syenite, quartz porphyry*.
- (2) Basic or plagioclase rock: *Diorite, diabase, olivine diabase, gabbro, basalt, amygdaloidal trap, pyroxenite, anorthosite*.

Granite.—This rock, in an unaltered condition, plays but a subordinate part in the geology of the district, as far as the Huronian is concerned. When present in this formation it is generally in the form of narrow dykes, conforming to the strike of the schists; the district described as the "second area" is more remarkable for these rocks. Muscovite, hornblende and biotite granites have been observed; in all cases they are typical and require no further notice. Large masses of granite, in some cases probably eruptive, in others representing the non-laminated portion of the Laurentian matrix, are common in many parts of the regions of that age. According to the theory of Dr. Lawson¹ the granitic portion of the matrix would be distant from, and the gneissoid portion near to the Huronian contact. On this assumption much of the granite observed must be eruptive, for a loss of lamination on approaching the contact is apparent in many places. Some of these masses are

¹ *Report on the Geology of the Rainy Lake Region.* (Report Geol. Surv. Can., 1887, page 112.)