So far as the writer is aware, these are the only observations so far put on record in the Adirondack region which have any bearing on the relative age and relationships of the two rocks, syenite and anorthosite.[1] They definitely show (1) that the anorthosite is cut by a basic syenite, which is therefore younger; (2) that this basic syenite shows considerable variation from place to place and in one exposure bears a strong resemblance to the normal syenite; (3) that at times the normal syenite shows gradation into a gabbroid phase, best shown at Diana and Tupper lake, which is similar to the rock which cuts the anorthosite; and (4) that the anorthosite gabbro itself shows a tendency to the production of a similar rock by local differentiation, that is, a rock richer in pyroxene-hornblende-garnet content than the ordinary anorthosite gabbro, but with oligoclase andesin instead of labradorite for the feldspar and with the development of much microperthite and some quartz in addition; and that at least one dike of a like rock occurs cutting anorthosite. But it has not yet been demonstrated that the syenite found cutting the anorthosite is connected with the main masses, yet such a demonstration is necessary in order to definitely prove the younger age of the latter. It may be argued however that dikes from a syenite mass would draw their material from its peripheral portions, and, if any differentiation had previously taken place, would naturally be more basic than the main mass. The Diana case proves that such differentiation has taken place on a considerable scale; it has also taken place at Tupper lake, and it is thought that plentiful evidence of the same sort would be forthcoming elsewhere, were it not for the general unsatisfactory character of the rock outcrops which prevail in the woods. It is therefore thought that the evidence strongly points to the occurrence of a considerable body of syenite in the region which is younger than the anorthosite. The occurrence of the syenite in a great number of separate masses renders it possible however that there may be some considerable age differences between them. And the fact that in many parts of the region there occur numerous small masses of similar rocks and some larger ones too, which are thoroughly gneissoid and much

[1] For details *see* N. Y. State Geol., 20th An. Rep't. p.r25–r46.