

summit to the series is therefore what would naturally be expected, and it may be legitimately argued that the thickness must have been very great, since so great an amount of rock has been worn away. It is by no means meant to imply that these rocks formed the whole mass of what has been removed, but it is thought that they must have constituted a respectable percentage of it. Even the remaining fragments indicate a very considerable thickness for the formation.

The nondiscovery of the base is not so easily accounted for. It is a water-deposited formation and must have been laid down on some floor, and it would naturally be expected that some evidence of what this floor was would be forthcoming. But the great metamorphism which has destroyed the old rock structures and given them a common foliation, the inextricable intermingling of igneous rocks with the Grenville sediments, and the later great igneous invasions from beneath have so disguised the rock relationships as to make it very likely that the base of the Grenville will never be satisfactorily made out in the region.

Doubtful gneisses ("Saranac" formation). In the portions of the Adirondack region with which the writer is familiar the only large body of gneiss which is practically free from all Grenville admixture and at the same time seems to have no connection with the later igneous intrusions, is found in a belt running through northern Clinton and Franklin counties, adjoining the Potsdam boundary. It is not utterly free from Grenville rocks, since a few small patches of these do occur, though unfortunately exposures which disclose the relations between the two nowhere appear. The presence of these few small patches in the great body of gneiss furnishes one of the main arguments for the distinction between the two, since it is unlikely that the distinctive Grenville rocks would be present in such slight quantity were the gneisses affiliated with them, that is, were either sediments or were igneous rocks of Grenville age.

These gneisses are prevailing red, acid gneisses whose usual feldspar is orthoclase (or micropertthite or microcline), and which