

The other gneisses are black and consist essentially of feldspar and hornblende, with or without pyroxene, in other words, they are amphibolites. They have often a massive appearance and are in general more abundant where the gray gneisses are scarce or absent. The feldspar may be plagioclase or orthoclase or both, but the former much predominates, and is usually andesine or oligoclase. Pyroxene seldom equals the hornblende in quantity and is often absent. The rocks seldom show any traces of crushing but seem to have largely recrystallized.

These rocks often occur in thick bands or masses, often in thinner masses interbanded with red gneiss, and very similar rocks are often found in thin bands or bunches in the red gneiss. The latter may be either segregations or inclusions, it being usually impossible to determine which. Very similar rocks are also found as dikes cutting the red gneiss. These usually have a more rusty appearance than the ordinary rock and may be either offshoots from it or may represent a different and later rock.

These amphibolites are often found involved with red, granitic gneisses which cut them intrusively, both cutting across the foliation and sending a multitude of thin sheets into the amphibolite along the foliation planes, producing a red and black gneiss [pl. 1]. In such case the amphibolite is clearly the older, but in all such the question arises whether the granite is merely a phase of the ordinary red gneiss, or whether it is a different and younger rock. Since in nearly all cases these granites are not so foliated as the red gneiss, but retain distinct traces of igneous textures, often abundantly, it is thought that they are likely younger and not to be classed with it. Among other localities such granites are widely shown around St Regis Falls in Franklin county.

Nearly all, if not all, of these doubtful gneisses seem to have the composition of igneous rocks, though the question can not be fully decided without a large amount of chemical work. The gray gneisses are perhaps the most questionable in this respect. There