

diorites or diabases in composition and representing either basic segregations from the granitic magma or portions of basic intrusions caught up in it. This Fundamental Gneiss, it is believed, probably represents the original crust of the earth which has undergone successive fusions and re-cementations before reaching its present condition. In placing these rocks at the base of the series it is not intended to assert that they stand for any distinct or prolonged period of geological time, nor to affirm that these rocks in their present condition and with the foliation which they now possess antedate those of the Huronian system. This, as is shown, is not the case in many, or even probably in most, instances.

The chemical and mineralogical composition of the gneisses, as well as the character and origin of their foliation and the genetic relation of their associated pegmatites, are considered at length and many interesting facts brought forward which cannot here be further discussed.

The Grenville Series, so extensively developed further south, is in this northern area represented only by a very small and unimportant occurrences of highly crystalline limestone and a single occurrence of gneiss. They occur isolated from one another and surrounded by Fundamental Gneiss on every side, and are referred to the Grenville Series on account of their identity in petrographical character with the areas of this formation immediately to the south.

The district also includes large tracts of country underlain by pyroclastic and epiclastic rocks, forming a northeasterly extension of the development of the "typical" Huronian area on the north shore of Lake Huron. At one place on Lake Temiscaming, these Huronian rocks are found resting upon the floor of Fundamental Gneiss on which they were originally deposited, and of whose detritus they are made up; everywhere else the Fundamental Gneiss has been re-fused or softened and penetrates the superincumbent Huronian. The total thickness of the Huronian in the area is about eighteen hundred feet, made up as follows: 1. Breccia Conglomerate, 600 feet. 2. Shales and slaty greywackes, 100 feet. 3. Quartzose grit or Arkose, 1100 feet. Associated with these Huronian sediments are numerous intrusions of