

Silver Mines, along Kaministiquia River below Kakabeka Falls, at the Pays Plat Islands in Nipigon Bay and other places.

The Animikie cherts and jaspers, black, red and green, are to a great extent characterised by a peculiar internal oolitic structure, such as I have not seen within the Huronian rocks. I have noticed this feature along the strike of the formation for over one hundred miles, or from Silver Lake to Gunflint Lake.

Again, none of the chloritic, talcoid, actinolitic, micaceous, or dioritic schists, that are so plentiful in the Huronian folded schists, are found among the Animikie beds; nor are any of the obscure conglomerates, so plentifully developed throughout, and so characteristic of the Huronian of Lake Superior, to be seen in the Animikie. These conglomerates or agglomerates, which are made up of oblong or lenticular masses of various sizes, from a few inches up to twenty feet and more in length, are generally arranged parallel with the bedding. Usually they are thickly packed, and show a gradual transition from the massive central nucleus to the more fissile schistose matrix, the latter being also deeper or darker in color, than the former. It is only on weathered, smooth, wet surfaces that they are well seen. They have been described by Logan, Bell, Macfarlane and others, and different theories have been given for their formation.

The rocks of the Animikie group, as a general rule, have a tendency to break at right angles to the bedding, while the Huronian rocks show a strong tendency to break at acute angles into lenticular fragments, characteristic of crystalline schists. The Animikie strata are conspicuously slaty or flaggy, not schistose; and the Huronian rocks are as conspicuously schistose by reason of the development within themselves of leafy minerals. Again, with the exception of the crystalline trap, chert, dolomite and iron ore, the constituent minerals of the remainder or major portion of the Animikie strata are fragmental, and of exotic origin as shown above in the case of the mica in the clay-slate. Those of the Huronian rocks, on the other hand, have been developed in place by metamorphism. The trap, of course, was crystallised from the molten state. The cherts, jaspers, dolomites and iron ores, have probably been chemically formed, as suggested by Prof. Irving and others. In the Huronian folded schists, chlorite, mica, hornblende, etc., in fine grains, are plentifully developed in places, constituting great thicknesses of the different schists characterised by these minerals, while in the Animikie, I believe, none of these minerals are developed within the sedimentary beds, except perhaps in close proximity to eruptive trap. It would appear that the Animikie strata are not sufficiently metamorphosed for the differentiation of these minerals.

The prevailing greenish aspect of the Huronian folded schists seems to be caused by the partial development of a chloritic ingredient as shown by Prof. Irving. When describing (p. 227) some of the typical Huronian strata, he states, "Most all of the kinds, except those that are nearly purely quartzose, have undergone a considerable amount of metasomatic change, the principal result of which has been the production from the feldspars of chloritic ingredients; whence, chiefly, the dark and often greenish hue presented by these rocks." This dark and greenish hue is a prevailing characteristic with the bulk of the Huronian strata, and is entirely absent from the Animikie. This distinguishing feature alone should, I think, be sufficient to separate the two formations, especially as it is so marked, and where only a line, as it were, separates them for some two hundred miles or more along their northern contact or boundary.