

On the Gold Measures of Nova Scotia and Deep Mining.

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The gold measures of Nova Scotia became known about the year 1860. The earliest discovery was followed by so many others, that it was believed that the whole of the Province was auriferous. Gradually, however, it became evident that the workable deposits of free gold were confined to the metamorphic rocks of the Atlantic coast, along which they form a continuous belt, from one end of the province to the other, a distance of some 260 miles, varying in width from ten to seventy-five miles.

They cover about half the superficies of the province, exclusive of Cape Breton Island, and their extent may be roughly estimated at 8,500 square miles. Of this area, probably 3,500 square miles are occupied by granitic masses, barren of gold, leaving an area of about 5,000 square miles of gold-measures.

The granite intersects the stratified gold-bearing rocks, in many places, in large masses or dykes, but for the most part it forms a prominent ridge, almost unbroken, from one end of the province to the other. Its intrusion took place at the close of the Silurian period, probably about Oriskany, and was accompanied and followed by disturbances, faults and much local metamorphism of the stratified rocks. It occurred after the folding of the gold-measures and the deposition of the quartz veins; for granite dykes and veins have been observed to always cut the interstratified quartz veins wherever they come in contact with them. The granite has thus no relation to the auriferous character of the veins, and need not again be referred to.

Although, no well defined fossils have so far been found in the sedimentary rocks constituting the gold-measures, most geologists agree to classify them, provisionally, as Lower Cambrian.

They certainly, in many respects, resemble the auriferous Cambrian of the Eastern Townships of Quebec, and knowledge gained in the