if the organic nature of the *Eozoon Canadense* can be considered as established, there can be no doubt of the sedimentary character of much of the strata of the system. So also the beds of quartzite and slate, in which the graphite sometimes occur, would in any other system be classified as of aqueous origin. In certain cases of apparent sedimentation, such as the banding of gneisses, this is not so clear since this structure might be induced by other causes, such as pressure, shearing, etc., and we frequently find gneissic structure in true granitic rocks. In fact, no hard and fast theory can be drawn in geological discussion any more than in many other sciences. So much difficulty has been found in drawing the line of division between the two groups of Archean rocks, the Laurentian and Huronian, that very often the two are comprised under one head, the pre-Cambrian, in which the Cambrian is held to constitute the lowest fossiliferous series,the underlying pre-Cambrian being, in so far as yet known, with the possible exception mentioned above, non-fossiliferous.

With the primary or paleozoic rocks our acquaintance with the organic life of the globe may be said to begin, though from the advanced types of life first found it is held by many that lower and earlier forms must have existed in earlier times, the remains of which have completely disappeared from the record because of the great metamorphism to which the rocks of the preceding age have been subjected. Thus in the lower Cambrian are found the remains of huge trilobites with a length of 17 or 18 inches, in fact of a size unknown or unsurpassed in subsequent periods. As we advance in Paleozoic time, however, the various species increase with great rapidity, and in some places, judging from their remains, the shores and shallow waters must have absolutely swarmed with life. That these shores were exposed to the action of sun and wind, tidal currents, etc., is evidenced by the presence of sun cracks, ripple marks and false bedding even in the oldest Cambrian strata, while the presence of beds of conglomerates with sandy layers indicates that the character of the sea beaches of those early days was in many respects very similar to those observed along the coasts at the present time. In fact, in the interpretation of geological problems in the stratified rocks, sufficient attention is rarely paid to the present shore phenomena, varieties of texture in rock, passage from