

world. The Transition rocks are divided into systems, as well separated, and as well characterized as the Secondary or Tertiary rocks. The existence of well defined systems among the strata containing the beginning of life on our planet is no more to be doubted or discussed; and the Palaeozoic series or era is now divided palaeontologically and stratigraphically into systems well defined and equal in value to any system existing in our nomenclature of the earth's history.

Sedgwick's Cambrian comprises two systems, whose individuality is now recognized and admitted by all observers. In one exists the Primordial fauna and in the other the Second fauna. Sedgwick did not find the Primordial fauna and ignored it altogether until the end of his researches in the field; on the contrary, he discovered and signalized the Second fauna and had it described by McCoy. These facts cannot be disregarded. They solve the question and put aside all the claims of right to name these two systems. To Sedgwick belongs the Second fauna and the rocks containing it; and there the name of Cambrian must be confined. The other system, containing the Primordial fauna, was first signalized and described in America, independently of Sedgwick and of other researches made in Europe. Barrande first recognized the great value of the Primordial fauna; characterized the forms of animals found in it, and its features, which have ever since been accepted and acknowledged everywhere. No better judge, consequently, than Barrande exists; and his opinion as to the priority and the importance of the discovery of the Taconic system containing the Primordial fauna must be accepted as a law, as solid as any law or rules made in geology. To Emmons belongs the other system of the primitive Cambrian of Sedgwick, and its name of Taconic must supersede Cambrian with its double meaning.

I will add that Emmons saw, in 1842, that the lower division of the Cambrian of Sedgwick was, rather more than a division of the third order, a system or great grouping of strata of the second order. He knew no fossils then, and had the merit of being, even stratigraphically, the first discoverer; finding and proving that the strata below the upper Cambrian form a true system, which is called the Taconic system. (See: *Geology of New York*, Part II, p. 163, Albany, 1842.)

So stratigraphically and palaeontologically Emmons has priority