

Huronian, and compared the Dimetian with the Upper Laurentian of Logan.

The similar crystalline rocks of North Wales, already noticed, were now studied by Professor T. McKenny Hughes of Cambridge, who described them in 1878. These include in Carnarvonshire and Anglesey the greenish crystalline schists which the writer in 1871 referred to the Huronian (pre-Cambrian of Sedgwick, and Altered Cambrian of the geological survey), certain granitoid rocks formerly described as intrusive syenite, and also a reddish feldspar-porphry which forms two great ridges in Carnarvonshire. This latter was by Professor Sedgwick regarded as intrusive, and is moreover mapped as such by the geological survey, though described in Ramsay's memoir on the geology of North Wales as probably the result of an extreme metamorphism of the lower beds of the Cambrian. The pre-Cambrian age of all these rocks was clearly shown by Hughes, who however considered that the whole might belong to one great stratified series; while Hicks, from an examination of the same region, regarded them as identical with the Dimetian and Pebidian of South Wales.

Dr. Hicks continued his studies in both of these regions in 1878,—being at times accompanied by Dr. Torell of Sweden, Professor Hughes and Mr. Tawney of Cambridge, and the writer—and was led to conclude that beside the chloritic schists and greenstones (diorites) of the Pebidian, and the older granitoid and gneissic rocks, there exists, both in North and South Wales, a third independent and intermediate series, to which belong the stratified petrosilex or quartziferous porphyries already noticed. These are sometimes wanting at the base of the Pebidian, and at other times form masses some thousands of feet in thickness. At one locality, near St. David's, a great body of breccia or conglomerate, consisting of fragments of the petrosilex united by a crystalline dioritic cement, forms the base of the Pebidian. For this intermediate series, which constitutes the quartziferous-porphry ridges of Carnarvonshire, Dr. Hicks and his friends proposed the name of Arvonian, from Arvonian the Roman name of the region.

This important conclusion was announced by Dr. Hicks at the meeting of the British Association for the Advancement of Science at Dublin, in August, 1878. The writer, previous to attending this meeting, had the good fortune to examine these