

one formation which has originated in the simultaneous action of aqueous and igneous causes long continued."<sup>1</sup>

Sedgwick next turned his attention to the complicated geological structure of the mountainous region of North Wales, and after great labour succeeded in unravelling it. Among the important additions to geological science made by him at this time was the recognition of the intercalation of vast masses of igneous rocks among the ancient sedimentary series (Cambrian and Lower Silurian) of that region. He distinguished trappean conglomerates, contemporaneous sheets of "felstone-porphry" and "felstone," and found the two classes of aqueous and igneous rocks so interlaced that they could not be separated and were regarded by him as of contemporaneous origin. He likewise noted the presence of later intrusions of "greenstone" and other trappean masses. Thus the existence of a vast complex of ancient Palæozoic lavas, tuffs, and breccias was introduced into geological literature.<sup>2</sup>

While the Woodwardian Professor was at work

<sup>1</sup> *Proc. Geol. Soc.* vol. i. p. 248 (5th January, 1831) and p. 400 (2nd May, 1832).

<sup>2</sup> *Proc. Geol. Soc.* ii. (1838) pp. 678-9; iii. (1841) p. 548; iv. (1843) p. 215. *Quart. Journ. Geol. Soc.* i. (1843) pp. 8-17; iii. (1846) p. 134. In the last cited paper Professor Sedgwick speaks of at least ninety hundredths of the trappean rocks of North Wales being of contemporaneous origin with their associated strata; but he regards them all as essentially "subaqueous or plutonic." He shows how they have been involved in all the latter plication of the region, and how they may be used as recognisable and well-defined stratigraphical platforms.