

Deshayes, Lyell, and Bronn had thus verified the importance of comparative study in defining a successive series of palæontological horizons within each larger group of rock-strata. The security of the method, and its community of interest with zoological studies, lent a new fascination to the stratigraphical aspects of geology. The subject promised a good field of research, and attracted some of the most acute intellects of Europe into its service. The part of the geological record which still remained very obscure was the so-called "Transitional" series below the Carboniferous rocks embracing the thick greywacke formation with interbedded shales, slates, conglomerates, and limestone. This group still retained its Wernerian appellation in literature, although many authors had comprised under it some of the "Primitive" rocks in Werner's system (*ante*, p. 58). Continental authors had contributed memoirs on the Harz mountains, on Gothland, the Rhine and Belgian areas of "Transitional" rocks, and had erected stratigraphical sub-divisions of a local value formed chiefly on petrographical characteristics; but no complete sub-division of the immense complex of strata between the crystalline schists and the coal measures had been attempted.

This was the gigantic task which two British geologists, Adam Sedgwick<sup>1</sup> and Roderick Murchison,<sup>2</sup> set themselves

<sup>1</sup> Adam Sedgwick, born on the 22nd March 1785, at Dent in Yorkshire, the son of a clergyman, studied theology and mathematics in Cambridge; in 1809 became an assistant demonstrator at Trinity College, and in 1818 Professor of Geology at the University of Cambridge. In 1822 he began his researches in Cumberland; in 1826 made his first journey with Roderick Murchison to Scotland, and worked for ten years along with Murchison, until the difference of opinion about the Cambrian formation embittered their friendship. Sedgwick was a born teacher; his lectures, full of enthusiasm and relieved by a ready sense of humour, stimulated many of the younger men to devote themselves to geology; he was also the founder of a rich geological museum in Cambridge, whose scientific value was highly eulogised when the Wollaston and Copley medals were conferred on him. Sedgwick died on the 27th January 1873, in Cambridge.

<sup>2</sup> Roderick Impey Murchison, born on the 19th February 1792, at Tarradale in the Scottish Highlands, was trained at Great Marlow for a military career, and was an officer in the Spanish campaign of 1807. He married in 1815 the accomplished daughter of General Hugonin, who encouraged him to follow out his bent for science. After short preparatory studies, Murchison began his literary activity with several memoirs on the geology of Sussex, the north of Scotland, and Arran; he travelled in 1828 with Lyell in France and Upper Italy, and together with Sedgwick made detailed geological studies in the Austrian and Bavarian Alps. In 1831 he began his famous investigations of the Palæozoic deposits in Wales