horizontal displacement, had been proved in the Somersetshire coalfield, where the Radstock 'overlap-fault' was described in 1864 by G. C. Greenwell and James McMurtrie. Considerable inversions had been recognised long previously in the regions of Abberley and Malvern by Murchison and John Phillips; but in this country no such vast displacements as the thrust-planes, now determined in the structure of the North-west Highlands, had hitherto been suspected.

Regional metamorphism, attributed 'to the dynamical and chemical effects of mechanical movements acting alike on crystalline and clastic rocks,' now became an interesting study, and 'pressure metamorphism,' as apart from 'contact metamorphism,' attracted much attention.[1]

The debates at the Geological Society have naturally been more animated and more interesting when controversies have arisen, than in the cases when undisputed facts and conclusions have been brought before the meetings. Pengelly has told that when the great paper by Godwin-Austen 'On the Possible Extension of the Coal-Measures beneath the South-Eastern Part of England' was read on May 30, 1855, 'the author was by no means spared, as the various speakers expressed themselves freely. This part was extremely interesting, not only on account of the remarks made, but also because it gave me an opportunity of seeing and hearing many eminent men, as Lyell, Murchison, Colonel Portlock, Sharpe, Smyth, Prestwich, Morris, &c. Daubeny and Percy were also there, but did not speak.'[2]

Ramsay's paper on the Permian breccias and probable existence of glaciers and icebergs in that epoch, read in February 1855, was well calculated to provoke criticism. De la Beche had remarked: 'As to the scratching of breccia fragments—"'tis their nature to"—

[1] See T. G. Bonney, Address to Geol. Soc. 1885; and Hudleston, Address, 1894.

[2] 'Memoir of William Pengelly,' 1897, p. 54.