

It was not until about 1840 that De la Beche had the benefit of assistants who gave their whole attention to the work of the Geological Survey. W. T. Aveline joined in that year, A. C. Ramsay in 1841, and H. W. Bristow in 1842.¹

At a later date William Sanders in the Bristol area, and William E. Logan in the great South Wales Coal-field around Swansea, gave most effectual help in the work of the Geological Survey, placing their information freely at the service of that institution. Logan had commenced work in 1831, and his maps had been exhibited in 1837 at the meeting of the British Association in Liverpool, where they attracted the attention of De la Beche.

Mention may here be made of an eminent practical geologist, Thomas Sopwith, land and mine surveyor, who published in 1833 an account of the mining districts of Alston Moor.² Two years later, by order of H.M. Commissioners of Woods and Forests, he prepared a plan on a scale of ten inches to a mile, of the coal and iron mine districts in the Forest of Dean, and in 1842 he constructed a model of the area. He became well known also for his twelve hand-models, shaped from thin slabs of differently coloured wood, to illustrate geological phenomena: such as stratification, dip, strike, coal seams, faults, mineral veins, denudation, &c. These models were issued in 1840, and an account of them was brought before the Geological Society in the following year.

De la Beche has told how in 1835, while conducting the Geological Survey in Cornwall, he was forcibly impressed with the idea that the Survey presented an opportunity, not likely to recur, of illustrating the useful applications of geology; and he then suggested to the Chancellor of the Exchequer, Mr. Spring-Rice (afterwards Lord Monteagle),

¹ See 'Memoir of Sir Andrew Crombie Ramsay,' by Sir A. Geikie, 1895. In this volume, as well as in his 'Life of Murchison,' there are many interesting particulars of the early history of the Geological Survey.

² See 'Thomas Sopwith, M.A., F.R.S. [1803-79]; with excerpts from his diary of fifty-seven years,' by Dr. B. W. Richardson, 1891.