

the author from whom I quote, Dr Whewell, in the third edition of his 'History of the Inductive Sciences,' could still say that "their task was not yet finished, their mission not yet accomplished—that they had still much to do in the way of collecting facts; and in entering upon the exact estimation of causes, they have only just thrown open the door of a vast labyrinth which it may employ many generations to traverse, but which they must needs explore before they can penetrate to the Oracular Chamber of Truth."¹ One of the many individuals in this country who "had long pursued his own thoughts without aid and without sympathy"² was William Smith. "No literary

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lation within these walls has been of doubtful beneficence" (Huxley on "Geological Reform," Address to the Geological Society, 1869; reprinted in 'Lay Sermons,' &c., 1891, p. 207).

¹ See Whewell, 'History of the Inductive Sciences,' 3rd ed., vol. iii. pp. 428, 518. Lyell, 'Principles of Geology,' 3rd ed., vol. i. p. 102, &c.

² Whewell, *loc. cit.*, vol. iii. p. 427. William Smith (1769-1839), a native of Oxfordshire, has been called the Father of English Geology. He was—like so many other naturalists of this country—an amateur in his scientific studies, which were conducted on the occasions of his elaborate surveys of Oxfordshire, Warwickshire, and Somersetshire in connection with the engineering of several canals. He initiated in England the science called on the Continent "Stratigraphy," observed the successive layers in the geological structure of the country, and in 1799 prepared a tabular view of the order of the strata and their organic remains in the neighbourhood of Bath. For many years after this

he was occupied in preparing his Geological Map of England and Wales, which appeared on the five miles to the inch scale in 1815 in fifteen sheets. He was popularly known as "Stratum Smith," but remained almost unknown abroad, as he himself also seems to have taken little notice of Continental geology or prevailing theories. Though he began earlier than Cuvier and Brongniart, they anticipated him by publishing in 1811 their mineralogical description of the Paris Basin, thus becoming the founders of the science of palæontology (see Peschel, 'Geschichte der Erdkunde,' München, 1877, p. 714, &c.) Of the Geological Map Lyell says ('Principles of Geology,' vol. i. p. 101) that it "remains a lasting monument of original talent and extraordinary perseverance; for he had explored the whole country on foot without the guidance of previous observers or the aid of fellow-labourers, and had succeeded in throwing into natural divisions the whole complicated series of British rocks."