

To the less precise generalisations of Fuchsel, William Smith added the complete proof of the *succession of life in time*, proving, as he did, in England, a clear succession of strata, each more or less characterised by its own suite of fossils; and this gave, to a great extent, a perfect clue to the reading of that chronology on which Hook so vaguely speculated. To effect his object, Smith traced the English formations from end to end of the country with unwearied devotion, and at length, in 1815, produced his great geological map of England. He struggled long, almost unrecognised in his labours, but when they were well nigh at an end, men began by degrees to recognise that a master was among them, and in 1831, the first Wollaston medal was awarded to him by the council of the Geological Society, while in his annual address, Professor Sedgwick hailed William Smith as 'the father of English geology.' He died in 1839, and surely his name will last as that of a great original observer, even though it may be surmised that the time was ripe for that discovery, which, unknown to Smith, had been partly forestalled by Fuchsel.

The doctrines of Hutton and Smith combined gave the key to great part of the modern system of geology, and later works have carried out and improved upon their conclusions, in a series of masterly investigations

so great an idea, and the length of time which the change thus imagined (I may say demonstrated) must have required.' I am indebted to Professor Young of Glasgow for this extract from a manuscript volume of Dr. Black's letters preserved in the Hunterian Museum. Dr. Black was born in France in 1728. In 1756 he was appointed Professor of Chemistry in Glasgow, and in 1766 he was transferred to fill the Chair of Chemistry in the University of Edinburgh. He died, at the age of 71, in 1799. He was therefore the contemporary of Hutton, who died in 1796, and they were intimate friends.