

Voyages of Discovery – from Darwin to the Moon and beyond

William Smith LL.D (1769-1839)

William Smith the “Father of English Geology” was born in 1769, in the small village of Churchill, near Chipping Norton, Oxfordshire. He was the son of the village blacksmith, and at an early age was fascinated by the Jurassic fossils that abounded in the ploughed fields near his home. Educated in the village school, he was apprenticed as a surveyor’s assistant, and later went into business as a surveyor. His work took him to the Somerset coalfield in 1791, supervising the construction of canals and bridges. Through his survey work he noticed that the rock layers (strata), including economic coal seams, were regularly arranged at numerous localities and were characterised by the same fossils. Smith was able to establish the regular succession of rocks and their contained fossils – long before Darwin’s theory of evolution. This discovery allowed him to identify strata with the same characteristics, and to correlate and map their extent at the surface throughout the country. Through his travels, initially around Bath, he produced the first local, and subsequently national, geological maps of remarkable accuracy.



Smith published his famous geological map of England and Wales and parts of Scotland in 1815, but was overtaken by financial difficulties that resulted in him being confined to debtors’ prison in 1819. He tried to raise money through selling his collection of stratigraphically organised fossils to the British Museum but to little avail. He was released from prison and, shunned by members of the educated geological establishment, travelled north to Yorkshire where he was employed to advise on the water supply to Scarborough and later, in 1824, by Sir John Johnstone as his estate manager at Hackness. This began his long association with Yorkshire geology. Together with his nephew, the renowned geologist John Phillips, he designed and acted as Clerk of Works for the building of the Rotunda Museum, Scarborough (completed in 1829) that illustrated the local strata in correct stratigraphical order, together with their representative fossils. He continued to work on the national geological map which was improved through new editions, and eventually he gained recognition from the geological establishment, culminating in the award of the Wollaston Medal of the Geological Society of London in 1831 – the first recipient of their highest award. This was followed in 1835 by the award of a doctorate (LL.D) from Trinity College, Dublin.

Acknowledgements; text by John H. Powell

Image of William Smith (1769-1839), portrait by French painter Hugues Fourau (1803-1873) courtesy of The Geological Society, Map: Smith, W. 1815. A delineation of the strata of England and Wales with part of Scotland; exhibiting the collieries and mines, the marshes and fen lands originally overflowed by the sea, and the varieties of soil according to the variations in the substrata, illustrated by the most descriptive names [ca. 1:313 800]. - London: J. Cary



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