

Map collections

The Lapworth Museum has a fine collection of early geological maps published by many of the most important, and distinguished, geologists of the nineteenth century.

William Smith

William Smith (1769-1839) was born in Oxfordshire, the son of a blacksmith, and from an early age was interested in the fossils of his native county. In 1787 he was employed as a surveyor and spent years travelling the country working on the construction of new canals. This work required a knowledge of the rocks through which the canals would pass, and although he was already quite knowledgeable in geology, Smith's new role provided him with the opportunity, and time, to study the rocks and fossils in much greater detail. He amassed a large collection of fossils and rocks from the areas where he worked, and made many important observations.

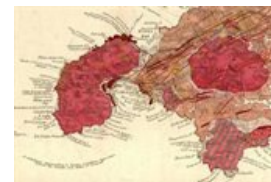
Smith recognized the regular succession of strata, and the fact that individual beds could be recognized from similar lithological formations by their characteristic assemblages of fossils, he called this the Principle of Faunal Succession. Based on this principle and his own detailed observations, Smith produced the first large-scale geological map of England and Wales, which was published in 1815.

The geological "establishment" did not, at first, acknowledge Smith's pioneering work due in part to his humble background and education, but also as a result of bitter rivalry particularly from George Greenough the President of the Geological Society. It was not until later in his life that Smith received recognition for his geological work, and in 1831 the Geological Society of London presented him with its first Wollaston Medal, the highest honour awarded by the society for outstanding achievements in geology. William Smith's groundbreaking work is now fully recognized and he is regarded as "The Father of British Geology".

After completion of the first map Smith produced a number of county geological maps of which the Lapworth Museum has various copies.

George Bellas Greenough FRS FGS

George Bellas Greenough FRS FGS (1778-1855) was the first President of the Geological Society from its inception in 1807 until 1813, and was later President of the Royal Geographical Society. He was from a far more affluent background than William Smith, with whom he built up a bitter rivalry while trying to produce a geological map of England and Wales that he claimed would be far superior to Smith's work. Greenough's large-scale geological map was published in 1819, four years after Smith completed his map. Greenough's map was beautifully draughted and engraved, but in terms of its geological content and accuracy was by no means superior to Smith's unique map. Many editions of Greenough's map were published by the Geological Society and the Lapworth Museum has a number of copies.



[Click for larger image of Greenough map \(/Images/College-LES-only/GEES/lapworth/map-greenough-903x613.jpg\)](#)

John MacCulloch

John MacCulloch (1773-1835) was an important figure in early British geology. He published on a wide range of geological topics, but is probably best known for his pioneering geological mapping of Scotland similar in many ways to William Smith's work in England and Wales. He produced many detailed maps, particularly of the Western Islands, culminating in his publication of A Geological map of Scotland in 1837, a copy of which is held in the Lapworth Museum.



[Click for larger image of MacCulloch map \(/Images/College-LES-only/GEES/lapworth/map-macculloch-913x671.jpg\)](#)

J. & C. Walker

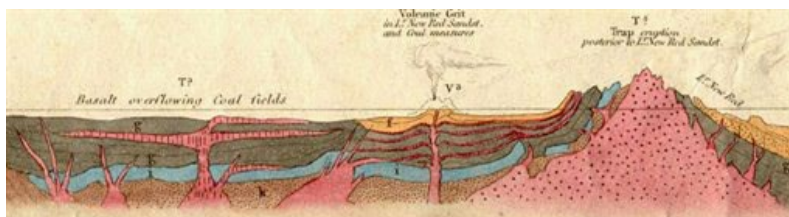
A particularly attractive map is **Walker's** Geological Map of England, Wales and part of Scotland, showing also the inland navigation by means of Rivers and Canals, with their elevation in feet above the sea. Together with the Rail Roads and Principle Roads. This beautifully hand coloured map was published in the mid nineteenth century by J. & C. Walker, engravers, draughtsmen and publishers based in London. Much of the geological information is based on the earlier work of Smith, MacCulloch, Greenough and Smith's nephew John Phillips. The map has cross sections and notes referring to mineral deposits which were vital, at that period, for the industries and wealth of the country.



[Click for larger image of J & C Walker map \(/Images/College-LES-only/GEES/lapworth/map-walker-932x628.jpg\)](#)

Sir Roderick Murchison FRS, FGS

Sir Roderick Murchison FRS, FGS (1792-1871) was one of the leading figures in British geology during the nineteenth century and became Director of the Geological Survey of Great Britain from 1855 to 1871. He named the Silurian period of geological time, and in 1839 published his classic geological book -The Silurian System. To accompany this work he produced a geological map entitled The Silurian Region and adjacent counties of England and Wales, which appeared as 3 large sheets, which are often missing from surviving copies of the book. The copies in the Lapworth are unusual for never having been cut or folded.



There are many additional maps including examples published by John Phillips (1800-1874) the nephew of William Smith; James Nicol (1810-1879) who carried out important work on Scottish stratigraphy; and Sir A.C. Ramsey (1814-1891) & Henry Hicks (1837-1899) who published various maps of Wales.

The map collection also contains a set of first edition, one-inch scale, Geological Survey maps of the UK, and the associated horizontal and vertical sections. In addition, the Archive Collection contains numerous important manuscript maps belonging to Lapworth and other important geologists.

Lapworth's original field slips relating to his pioneering research in the NW Highlands and Southern Uplands of Scotland, are of particular scientific and historical importance.

