

Folio (560 by 370mm) first edition, signed and numbered by the author to the lower right corner of sheet VI, third issue (the “a” series), key map, large engraved map on 15 sheets, fine original hand colour, original half calf over marbled paper boards, rebacked and recornered, original calf label lettered in gilt to upper board, spine lettered in gilt; [together with] Quarto (260 by 210mm), title, dedication to Joseph Banks, list of subscribers, contents, 50pp., two tables providing information on the strata upon his large map, original blue wrappers, title on pink paper oval label, pasted to upper cover.

“THE MAP THAT CHANGED THE WORLD”

A Delineation of the Strata of England and Wales, with Part of Scotland; exhibiting the Colleries 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. [together with] A Memoir to the Map and Delineation of the Strata of England and Wales, with part of Scotland. By William Smith, Engineer and Mineral Surveyor.

Author
SMITH, William

Publication date
1815.

Publisher
John Cary and J. Wyld,

Publication place
London,

Physical description

Folio (560 by 370mm) first edition, signed and numbered by the author to the lower right corner of sheet VI, third issue (the “a” series), key map, large engraved map on 15 sheets, fine original hand colour, original half calf over marbled paper boards, rebacked and recornered, original calf label lettered in gilt to upper board, spine lettered in gilt; [together with] Quarto (260 by 210mm), title, dedication to Joseph Banks, list of subscribers, contents, 50pp., two tables providing information on the strata upon his large map, original blue wrappers, title on pink paper oval label, pasted to upper cover.

Dimensions

Notes

The first large scale, detailed scientific geological map of any country: “A major cartographic and scientific achievement” (Eyles, DSB). Smith’s triumph in executing this, his subsequent fall and then final recognition is the stuff of scientific legend: “he was imprisoned for debt, turned out of his home, his work was plagiarised, his wife went insane and the scientific establishment shunned him” (Winchester). However, Smith’s overwhelming contribution to the science of geology was his recognition, as outlined in the Memoir, “that each stratum is also possessed of properties peculiar to itself, has the same exterior characters and chemical properties, and the same extraneous or organised fossils throughout its course”. It was this theory, developed as early as 1796, that enabled Smith to “accurately predict, and therefore map, the geological composition of Britain” (Challinor). The connection between strata and their fossils was noted by the Danish scientist Nicolas Steno in his 1669 work ‘De Solido’, but it was Smith who first understood that the principles of stratigraphy could be applied on a national scale. His development of the mechanisms of superposition (the theory that geological strata are formed in order), placed palaeontology as a fundamental part of geology and lent credence to the theory of deep time, leading to a better understanding of the age of the earth. His great map is astoundingly accurate, and modern versions have made only relatively minor modifications to his work.

Five states of Smith’s work have been identified: an early unnumbered state (known in only a few copies); a series numbered 1-100, which Smith signed between 2 November and 17 December 1815; a series numbered a1-100 (the present example is of this series), signed between 17 December 1815 and 23 January 1816; a series numbered b1-100, signed after 23 January 1816; and an unnumbered series probably issued in 1823 or later (watermarks are dated 1823).

The present copy has been signed and numbered by the author in ink on the lower right corner of the sheet VI “Wm: Smith – a,77”, and is additionally numbered by him in ink “a77” on the lower left margin of the title sheet.

“The map was supplied either in sheets [usually bound as an atlas – as in the present example], or mounted on canvas and rollers, or fitted in a case for travelling” (Eyles, Bibliography). Eyles suggests that a possible 400 copies of the map were contemplated, but it is most probable that due to the economic situation in 1815, sales were small and no more than 100 copies were produced. This is reflected in library holdings, with OCLC only recording eight copies; RLIN duplicates Yale and Linda Hall and adds another three in Cornell, Brown, Stanford; KVK adds copies in Staatsbibliotheks Berlin and Zurich.

To have both the map and the explanatory text together is exceedingly rare; in fact, the British Library online catalogue suggests that they have only the accompanying Memoir text, and not the map itself.

Scale: 5 miles to one inch.

Bibliography

J. Challinor, “The Beginnings of Scientific Palaeontology in Britain” Annals of Science 6 (1948): 46-53; Joan M. Eyles, “William Smith”, in Dictionary of Scientific Biography (vol.12), ed. Charles Coulston Gillispie (New York: Scribner, 1970-80) 486-492; Eyles, “William Smith: A Bibliography of his Published Writings, Maps and Geological Sections” Journal of the Society for the Bibliography of Natural History V (1969); H.D. Horblit, One hundred books famous in science: based on an exhibition held at the Grolier Club (New York: Grolier Club, 1964), 94; Ruth A. Sparrow, Milestones of Science: Epochal books in the history of science as represented in the Buffalo Society of Natural Sciences, (Buffalo: Buffalo Society of Natural Sciences, 1972), 180; Simon Winchester, The Map that Changed the World (London: Harper Collins, 2001).

Provenance

Price:

Inventory reference: 2373

© Daniel Crouch Rare Books Ltd | 2025