



2 parts in one volume, 4to (320 by 270mm), 3 engraved maps, 14 lithographic plates of which 2 folding and 3 hand-coloured, 9 folding hand-coloured geological sections, 31 engraved plates of fossils, contemporary half calf over green marbled paper boards, rubbed, together with the rare engraved geological map, fine original hand-colour, three sheets mounted on linen, housed in contemporary half-calf over buckram solander box, gilt stamp of the Wigan Public Library to upper cover.

MURCHISON'S SEMINAL WORK ON THE SILURIAN SYSTEM

The Silurian System founded on geological researches in the counties of Salop, Hereford...
By Roderick Impey Murchison, F.R.S. F.L.S.

Author

MURCHISON, Roderick Impey

Publication date

1839.

Publisher

John Murray, Albermarle Street,

Publication place

London,

Physical description

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Dimensions

Notes

"An important milestone in geology, for it established the oldest fossil-bearing classification then known"(ODNB).

In 1831 Murchison went to the border of England and Wales, to attempt to discover whether the greywacke rocks underlying the Old Red Sandstone could be grouped into a definite order of succession. The result was the establishment of the Silurian system under which were grouped, for the first time, a remarkable series of formations, each replete with distinctive organic remains other than and very different from those of the other rocks of England. 'Murchison was the first to establish a uniform sequence of Transition strata, to which he gave the name "Silurian" after a British tribe; these strata constituted a major system with uniform fossil remains, displaying an abundance of invertebrates and a complete lack... of the remains of vertebrates or land plants' (Norman). These researches, together with descriptions of the coalfields and overlying formations in South Wales and the English border counties, were embodied in *The Silurian System* (1839). The implications for the evolutionary history of the earth were enormous.

The Silurian is a geologic period and system that extends from the end of the Ordovician Period, about 443 million years ago, to the beginning of the Devonian Period, about 416 years ago. As with other geologic periods, the rock beds that define the period's start and end are well identified, but the exact dates are uncertain by several million years. The base of the Silurian is set at a major extinction event when 60% of marine species were wiped out.

Al the large accompanying map was published with each copy of the text, it is an extreme rarity today. Thackray in her 1978 work on the piece, consulted 25 institutional examples of the work, with only 11 containing the map.

Bibliography

T.C. Bonney, 'Murchison, Sir Roderick Impey', *Oxford Dictionary of National Biography*; Diana H. Hook and Jeremy M. Norman, *The Haskell F. Norman Library of Science and Medicine*, (Jeremy Norman & Company, 1991), 1569; J.C. Thackray, 'R.I. Murchison's *Silurian System* (1839)', *Journal of the Society for the Bibliography of Natural History* 9 (1978),pp.61-73.

Provenance

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