

WILLIAM GEORGE MATON (1774-1840) AND HIS MINERALOGICAL MAP OF THE WESTERN COUNTIES OF ENGLAND

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During the summers of 1794 and 1795, William George Maton, a recent graduate of Oxford University, with one or both of his friends Thomas Rackett and Charles Hatchett, toured South-West England. Maton published an account of their journeys which represents the first description of this part of the United Kingdom made by travellers with an interest in science and knowledge of geology. It contains references to mines and quarries they visited and details of the soils, rocks, fossils and minerals they saw along the coast and in the countryside. Maton summarised their observations on a map of the region, later described as the first attempt in England to construct a geological map. Strata were differentiated by shading using lines, rather than by colour, in order to demonstrate the relationship between one rock type and another. Although crude, over-generalised and inaccurate the map is of historic importance as a precursor to the detailed maps which were to appear in the early years of the 19th Century.

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INTRODUCTION

In the summer of 1794, Charles Hatchett (1765-1847), a mineral chemist and Thomas Rackett (1755-1840), a Church of England clergyman and antiquary, invited their young friend William George Maton (1774-1835), recently graduated from Oxford University, to accompany them on a tour into Cornwall visiting en route, the more southerly parts of Dorset and Devon (Maton, 1797; Paris, 1838). Two years later, Rackett and Maton, this time without Hatchett, completed a second tour, which covered the northern parts of Dorset and Devon, together with Somerset. During these tours, Maton kept a detailed journal, noting the mineralogy, geology, antiquities and natural histories of the districts visited and Rackett drew a series of sketches illustrating some of the scenery and antiquities.

On completion of their tours, Maton recognised that the information he had recorded was worthy of publication, a view supported by the President of the Royal Society, Sir Joseph Banks (Maton, 1797; Paris, 1838). Rackett placed his watercolours at Maton's disposal and 16 of these were rendered as aquatints by the London engraver, Samuel Alken. Details of the two journeys were published in separate volumes with a dedication to Thomas Rackett (Maton, 1797).

The two volumes provide a contemporary description of the South-West of England during the latter part of the 18th Century. They contain abundant references to the soils and geology of the region and to the mines which the travellers encountered. These geological and mineralogical references were summarised "*in the manner of a map, by which a general idea of the several transitions of substances may be obtained at one view*" (Maton, 1797, vol. 2, p.201). The map was noted in passing by early workers in South-West England. For example De La Beche records that Maton's description of his tours "*contains a geological map and numerous geological*

observations" (De la Beche, 1839, p.xxiii), but no further reference to it was made. Subsequently, Maton's observations and map have been described briefly by historians of Geology (e.g. Butcher, 1968, 1983; Challinor, 1971; Boud, 1975) but their significance as perhaps the first regional geological memoir and map of any part of England remains unrecognised amongst the wider geological community. The objective of this paper is to review Maton's observations and his map which, although rudimentary and inaccurate, is of considerable historical importance, particularly as we approach August 2015, the 200th anniversary of the publication of William Smith's great Geological Map.

THE TOURISTS

Thomas Rackett, the most senior member of the party, was a graduate of University College, Oxford (BA, 1777; MA 1780) and rector of the Parish of Spettisbury with Charlton Marshall, on the banks of the River Stour about five kilometres west of Blandford Forum in Dorset (Hutchins, 1868). The living, which he held for almost 60 years, provided him with a substantial income and he was able to pursue a range of outside interests. He was an active member of the Linnaean, Antiquarian and Royal Societies and a constant presence at lectures of the Royal Institution, spending lengthy periods in London. This led to an accusation, in the House of Lords, that he was neglecting his parochial duties, although this was later withdrawn. Apart from his illustrations for Maton's book he contributed many drawings and valuable assistance during the preparation of the Second Edition of Hutchins' *History and Antiquities of the County of Dorset* (Hutchins, 1796-1815).