

for education and assistance. The instruction obtainable at the village school was of the most limited kind. With difficulty the lad procured means to purchase a few books from which he might learn the rudiments of geometry and surveying. Already he had taken to the observing and collecting of stones, particularly of the well-preserved fossils whereof the Jurassic rocks of his neighbourhood were full. He came to be interested in questions of drainage and other pursuits connected with the surface of the land, and in spite of want of encouragement, made such progress with his studies that at the age of eighteen he was taken as assistant to a surveyor. But he had no education beyond that of the village school and what he had been able to acquire through his own reading. This early defect crippled, to the end of his life, his efforts to make known to the world the scientific results he obtained.

Smith's capacity and steady powers of application were soon appreciated in the vocation upon which he had entered. Before long he was entrusted with all the ordinary work of a land surveyor, to which were added many duties that would now devolve upon a civil engineer. From an early part of his professional career, his attention was arrested by the great variety among the soils with which he had to deal, and the connection between these soils and the strata underlying them. He had continually to traverse the red ground that marks the position of the Triassic marls and sandstones in the south-west and centre of England, and to pass thence across the clays and limestones of the Lias, or to and fro among the