

covered, in which the remains of animals or vegetables frequently occur: the latter he called secondary. In our own country, the Reverend J. Michell was the first person who appears to have had any clear views respecting the structure of the external parts of the earth: they were made public in a valuable paper on the cause of earthquakes, in the *Philosophical Transactions*, 1759. About twenty years afterwards, Mr. John Whitehurst published his "Inquiry into the original State and Formation of the Earth." His observations were principally confined to the rocks and strata of Derbyshire. Independently of its speculative opinions, this work was highly valuable as an attempt to describe the geology of a district, from actual examination. The great variety of original information it contained, and its general accuracy, will remain a lasting monument of the writer's industry and ability. Mr. Whitehurst, however, fell into the same error with the celebrated Werner in Saxony, an error to which the first cultivators of geology were particularly exposed,—that of drawing general conclusions from local observations, and forming universal theories from a limited number of facts.

Though Mr. Whitehurst's book was favourably received, yet till the beginning of the present century geological pursuits made little progress in England. On the continent, the researches of Saussure, Pallas, Werner, St. Fond, Dolomieu, and others, had before this time produced a powerful interest, and brought into the field many active and enlightened enquirers. The first general impulse given to the public taste, for geological investigations in this country, was produced by Professor Playfair's luminous and eloquent illustrations of the Huttonian theory. The leading feature of this theory, that all rocks or strata have been either formed or consolidated by central subterranean fire, was very warmly opposed; and much personal animosity and many adventitious circumstances were associated with the contest, not highly honourable to philosophy, but well calculated to keep alive the attention of the disputants to those appearances in nature which favoured or opposed their different theories.

He who attempts to make a scientific subject familiar, runs the risk, in this country, of being deemed superficial; a plentiful share of dullness, combined with a certain degree of technical precision, are regarded as essential proofs of profundity. By prescriptive right, long established in these realms, dullness and pedantry guard the portals of the temple of Science, and command those who enter, to avert their eyes from whatever can elevate the imagination, or warm the heart, and to look at nature through a sheet of ice. In compliance with their authority, writers of introductory treatises have generally thought it necessary to avoid that felicity in the familiar illustration of scientific subjects, so conspicuous in some elementary works of our neighbours. Without venturing to depart too far from established usage, I have endeavoured to render geology more intelligible, by avoiding as much as possible theoretical and technical language, and by introducing a simple arrangement, and suited to the present state of our knowledge. The local illustrations from