

composition of rocks, and to learn much regarding their mode of origin. He took us, as it were, into the depths of a volcanic focus, and revealed the manner in which lavas acquire their characters. He carried us still deeper into the terrestrial crust, and laid open the secrets of those profound abysses in which granitic rocks have been prepared. His methods were so simple, and his deductions so startling, that they did not instantly carry conviction to the minds of geologists, more particularly to those of his own countrymen. The reproach that it was impossible to look at a mountain through a microscope was brought forward in opposition to the new departure which he advocated. Well did he reply by anticipation to this objection. "Some geologists, only accustomed to examine large masses in the field, may perhaps be disposed to question the value of the facts I have described, and to think the objects so minute as to be quite beneath their notice, and that all attempts at accurate calculations from such small data are quite inadmissible. What other science, however, has prospered by adopting such a creed? What physiologist would think of ignoring all the invaluable discoveries that have been made in his science with the microscope, merely because the objects are minute? . . . With such striking examples before us, shall we physical geologists maintain that only rough and imperfect methods of research are applicable to our own science? Against such an opinion I certainly must protest; and I argue that there is no necessary connection between the size of an object and the