

other animals, they also must possess a stomach. But, as no such structure had been rendered visible in the smallest species of infusoria; such as monads, it was too hastily concluded that these species were formed upon a different and a simpler model. Lamarck characterised them as being, throughout, of a homogeneous substance, destitute of mouth and digestive cavity, and nourished simply by means of the absorption of particles through the external surface of their bodies.

The nature and functions of these singular beings long remained involved in an obscurity which appeared to be impenetrable; but at length a new light has been thrown on the subject by Professor Ehrenberg, whose researches have recently disclosed fresh scenes of interest and of wonder in microscopic worlds, peopled with hosts of animated beings, almost infinite in number as in minuteness.\* In endeavouring to render the digestive organs of the infusoria more conspicuous, he hit upon the fortunate expedient of supplying them with coloured food, which might communicate its tinge to the cavities into which it passed, and exhibit their situation and course. Obvious as this method may appear, it was not till after a labour of ten years that Ehrenberg succeeded in discovering the fittest substances, and in applying them in the manner best suited to exhibit the phenomena satisfactorily. We have already seen that Trembley had adopted the same plan for the elucidation of the structure of the hydra. Gleichen also had made similar attempts with regard to the infusoria; but, in consequence of his having employed metallic or earthy colouring materials,

\* The results of Ehrenberg's labours were first communicated to the Berlin Academy; they have since been published in two works in German: the first of which appeared at Berlin in 1830, under the title of "*Organisation, Systematik und Geographisches Verhältniss der Infusionsthierchen.*" The second work appeared in 1832, and is entitled "*Zur Erkenntniss der Organisation in der Richtung des kleinsten Raumes.*" Both are in folio, with plates. An able analysis of the contents of the former of these works, by Dr. Gardner, is given in *The Edinburgh New Philosophical Journal* for 1831, p. 201, of which I have availed myself largely in the account which follows.