

INTRODUCTION.

Of the Palætiological Sciences.

WE now approach the last Class of Sciences which enter into the design of the present work ; and of these, Geology is the representative, whose history we shall therefore briefly follow. By the Class of Sciences to which I have referred it, I mean to point out those researches in which the object is, to ascend from the present state of things to a more ancient condition, from which the present is derived by intelligible causes.

The sciences which treat of causes have sometimes been termed *ætiological*, from *αἰτία*, a *cause* : but this term would not sufficiently describe the speculations of which we now speak ; since it might include sciences which treat of Permanent Causality, like Mechanics, as well as inquiries concerning Progressive Causation. The investigations which I now wish to group together, deal, not only with the possible, but with the actual past ; and a portion of that science on which we are about to enter, Geology, has properly been termed *Palæontology*, since it treats of beings which formerly existed.¹ Hence, combining these two notions,² *Palætiology* appears to be a term not inappropriate, to describe those speculations which thus refer to actual past events, and attempt to explain them by laws of causation.

Such speculations are not confined to the world of inert matter ; we have examples of them in inquiries concerning the monuments of the art and labor of distant ages ; in examinations into the origin and early progress of states and cities, customs and languages ; as well as in researches concerning the causes and formations of mountains and rocks, the imbedding of fossils in strata, and their elevation from the bottom of the ocean. All these speculations are connected by this bond,—that they endeavor to ascend to a past state of things, by the aid of the evidence of the present. In asserting, with Cuvier, that

¹ Πάλαι, ὄντα.

² Πάλαι, αἰτία.