

geology, both in its interests and in its methods. If men are ever able to frame a science of the past changes by which the universe has been brought into its present condition, this science will be properly described as *Cosmical Palætiology*.

These palætiological sciences might properly be called *historical*, if that term were sufficiently precise : for they are all of the nature of history, being concerned with the succession of events : and the part of history which deals with the past causes of events, is, in fact, a moral palætiology. But the phrase *Natural History* has so accustomed us to a use of the word *history* in which we have nothing to do with time, that, if we were to employ the word *historical* to describe the palætiological sciences, it would be in constant danger of being misunderstood. The fact is, as Mohs has said, that Natural History, when systematically treated, rigorously excludes all that is *historical*; for it classes objects by their permanent and universal properties, and has nothing to do with the narration of particular and casual facts. And this is an inconsistency which we shall not attempt to rectify.

All palætiological sciences, since they undertake to refer changes to their causes, assume a certain classification of the phenomena which change brings forth, and a knowledge of the operation of the causes of change. These phenomena, these causes, are very different, in the branches of knowledge which I have thus classed together. The natural features of the earth's surface, the works of art, the institutions of society, the forms of language, taken together, are undoubtedly a very wide collection of subjects of speculation ; and the kinds of causation which apply to them are no less varied. Of the causes of change in the inorganic and organic world,—the peculiar principles of Geology,—we shall hereafter have to speak. As these must be studied by the geologist, so, in like manner, the tendencies, instincts, faculties, principles, which direct man to architecture and sculpture, to civil government, to rational and grammatical speech, and which have determined the circumstances of his progress in these paths, must be in a great degree known to the Palætiologist of Art, of Society, and of Language, respectively, in order that he may speculate soundly upon his peculiar subject. With these matters we shall not here meddle, confining ourselves, in our exemplification of the conditions and progress of such sciences, to the case of Geology.

The journey of survey which we have attempted to perform over the field of human knowledge, although carefully directed according to the paths and divisions of the physical sciences, has already