

general laws, are likewise typical or at all events were so at the time of their origin.

Neither can the change in crust and atmosphere which time has wrought be wholly unique, though here a possible exception may again arise in the action of life itself. Since we do not at present positively know of the existence of life elsewhere and certainly have no detailed knowledge of its nature, we cannot feel sure that the conversion of atmospheric carbonic acid into oxygen and coal is either a universal or a common occurrence. In details of the geological process indeed there may well be marked differences. Probably the greatest variation will occur in the relative duration of conditions like those which we now enjoy on the earth, the length or brevity of the period from the full establishment of the circulation of water by evaporation, cloud formation, rainfall, with the flow of lakes and streams, until its extinction by cold. Thus there is more liability of error in an analysis of the general characteristics of those spontaneous changes which must occur upon the surface of a body after the formation of a crust than there is in the attempt to discover the general characteristics of stellar evolution. But here again our knowledge is not based upon terrestrial phenomena alone.