

it began to form. A detailed account of the Palæozoic, Mesozoic, and Tertiary oceans, with their transgressions and retrogressions, comprises many new conceptions, and leads the author finally to the consideration of the oscillations of the ocean surface at the present day. The emerging coasts of Scandinavia are viewed as proof of lowered sea-level, and the general opinion in favour of crust-elevation is strongly opposed. Similarly, Suess explains the strand displacements in progress on the coasts of the Mediterranean Sea, the Pacific and Indian Oceans, as the result of movements in the aqueous envelope of the earth, but not in the solid crust.

According to Suess, ruptures and collapses affecting the whole thickness of the earth's crust, together with tangential folding of the upper horizons, are the forces to which the earth originally owed its surface conformation. There is no such thing as an active or passive emergence of portions of the earth's crust; in the estimation of Suess, the theory of elevation is a great error. He thinks it impracticable to ascertain the ages of the mountain-systems by any such ingenious method of calculation as Élie de Beaumont attempted, seeing that as a rule the upheaval of a mountain-system occupied protracted intervals of time. Nevertheless, Suess is inclined to correlate the grand physical events of the earth's history with those of the development of the organic world, and thinks it possible in this way to erect a natural and universal classification of the formations. For this purpose it is not so much the origin of new mountain-systems that comes into question as the periodic recurrence of those great pelagic transgressions, whose cause of origin until now has not yet been discovered.

Many of the hypotheses suggested by Suess will probably not endure the criticism of the future. Yet there can be no doubt that even the expression of a hypothesis having due respect to all known data marks an important step in advance. In the midst of the present activity in conducting detailed investigations there is a certain danger that scientific workers may become parochial in their interests and teaching; but a work like that of Suess, so cosmopolitan in its standpoint, reminds all workers of their community of aim, rouses each one from the particular to the general, and brings him back with renewed vigour and mental insight to the particular. The time was ripe for an effort to establish systematic clearness in the acquired abundance of detail and to seek for compre-