

the alternations of red and green clay are evidence of a change from dry to wet periods which may count as many as 14 or 15 oscillations. In Seistan he seeks the key for the explanation of the fluctuations of the Caspian Sea. The Quaternary deposits and terraces in Persia indicate an increasing series of climatic changes followed by a decreasing series. The latter correspond, he believes, to the ice periods in northern regions. The last epoch, he thinks, may have taken place even within historic times. During the latter part of the Tertiary age Iran was divided into basins where blown sand and the weathering products of the hills piled themselves above the more regular deposits laid down in water. "At Sistan, and probably elsewhere, a series of lakes appears to have occupied the basin during the glacial period. Nevertheless the general course of events was a gradual progress from larger basins to smaller basins, and from subaqueous to subaerial deposition." The area subjected to erosion is constantly diminished, a consequence of the dry climate. The æolian deposits "consist largely of fine sand, covering the drier plains and sometimes mantling the leeward side of the hills. Their most remarkable development is at Sistan, where the violent winds move the sand with phenomenal celerity and heap it into dunes of great height, which are to-day fast encroaching on areas of gravel and silt. . . . The basin deposits seem to occur almost invariably in one order of superposition, namely silts or other fine materials at the bottom, then gravel, and lastly wind-blown sand on top. It is probable that this order of superposition represents the ordinary sequence of events in a country where basin-making and desiccation are both in progress."

The lacustrine deposits in Eastern Persia show either that the quantities of rain in ancient times were greater than now, or that the climate was colder, the evaporation consequently smaller, and a great accumulation of water in the basins possible. At the Kogneh lake Huntington found river and lake terraces which demonstrated that fluvial and lacustrine epochs alternated with interfluvial and interlacustrine, and he explains the phenomenon on the "climatic hypothesis," that is to say, that we have here to