

lakes. . . . All the theories of deposits in basins without outlets, as well as of the occurrence of löss, which we have mentioned, are based exclusively on the assumption of a more general distribution of water and a more rainy climate in former times, while both phenomena, according to our idea, depend on the supposition of a dry climate and, as regards the formation of löss in particular, a climate of drought far in excess of the present."<sup>1</sup>

In this controversy we must side with Blanford unconditionally, for the exceedingly fine material in Persia's kevir basins has been undoubtedly deposited in lakes, fed by numerous silt-laden rivers. During the existing dry period, on the other hand, æolian forces are engaged, with the help of weathering and wind, in spreading a subaerial mantle over the older lacustrine deposits. For at the present time these basins are occupied by temporary lakes only to an insignificant extent; now they are deserts, and in a desert the most important destructive agency is insolation, and the most important denuding force is the wind.<sup>2</sup>

Blanford's theories have also, as already mentioned, been attacked by Dr. Emil Tietze. As far as historic times are concerned, I am inclined to adhere to Tietze's views, for I do not believe that a thorough change of climate can take place in such a short interval as 2000 years. But when it is a question of geological periods, I am convinced that Blanford's conception is fully justified. In the article already referred to, Tietze says: "There is nothing at all, no valid proof whatever, that the Persian salt steppes were covered with sea in the most recent geological period."<sup>3</sup> The layer of salt may have been formed in another way. Water has had only a small share in forming and depositing the quantities of material which fill up the interval between the parallel ranges of hills. For the rivers are exceedingly few. Tietze compares the Persian salt plains with Richthofen's *Lössmulden* in Mongolia, and says that the sunk-basin form of itself

<sup>1</sup> *China*, Bd. i. s. 174.

<sup>2</sup> Supan, *Grundzüge der physischen Erdkunde*, s. 532.

<sup>3</sup> *Jahrbuch der K.K. Geologischen Reichsanstalt*, Bd. 27 (1877), s. 341 u.f.