interfluvial and interlacustrine, and he explained the phenomenon by the help of the climatic theory. Those periods, in his opinion, were simultaneous with the glacial periods. He gives detailed descriptions of terraces in many other places, all proving that the lakes of western Asia in a rather late geographical period were much larger than now. Concerning the Lora-hamun VREDENBURG has arrived at the same conclusion, for he finds that this lake has been three or four times bigger than now and 50 feet deeper. The recent geological history of Persia is characterised thus by Huntington: it »begins with an arid climate at the end of the Tertiary era, after which ensued a fluvial period composed of some fifteen fluvial epochs of prolonged rivers and expanded lakes, separated by interfluvial epochs of shortened rivers and diminished lakes. The fluvial epochs increased in frequency and possibly in length and intensity from the beginning up to about the middle, after which they decreased.»[1] Huntington believes that the process of desiccation is still going on, and that the last fluvial period includes both the age of Alexander, 300 B.C. and that of ISTAKHRI, 900 A.D., as Alexander could not possibly have been able to carry out his retreat from India had the climatic conditions in his time been the same as now, and as the Caspian had such a high level in Istakhri's time, as is noted from 915 to 921.

BLANFORD had much earlier expressed the opinion that the desert basins of Persia were once filled with water. He says: »The deposits in the central portions of the desert plains are usually a fine pale-coloured loam, often covered over by shifting sands. These fine deposits may be of lacustrine origin, for it is probable that lakes have once existed in the enclosed plains without outlets, which are now deserts. The surface appears flat, but there is probably in all cases an imperceptible slope towards the middle of the plain.»[2] Blanford is also aware that such lakes could not possibly have been formed in the interior of Persia, unless the climate had been much moister than it is now.

F. VON RICHTHOFEN criticised Blanford's views, saying that all theories about deposits in basins without outlets, and about the formation of *loess*, are founded upon the supposition of more numerous lakes and richer precipitation formerly, whereas Richthofen on the contrary explains both phenomena by a climate much drier than at present.[3]

Nor could Dr. EMIL TIETZE accept Blanford's theory, and he could find no argument for the supposition that the Persian basins in a late geological time had been covered by water. The general decline in Persia, within historical time, does not depend on climatic changes. He ascribes the basin deposits to the same subaerial causes which have accumulated the *loess* in China.[4]

---

[1] Explorations in Turkestan, Washington 1905, p. 301.
[2] Eastern Persia, Vol. II, p. 465.
[3] China, Bd I, p. 174.
[4] Zur Theorie der Entstehung der Salzsteppen. — Jahrbuch der K. K. Geologischen Reichsanstalt, Bd 27 (1877), p. 341 et seq.