

possible to enter Afghanistan and study the lacustrine clays which are reported to lie far up the Helmund. It is not impossible that other localities may be discovered where the bottoms have been lifted up and exposed to view (*e. g.*, Chahek, p. 267), but none is likely to be found where a greater harvest of facts can be gathered than at Sistan. There is also a way in which the theory can be tested nearer home. If the glacial period in all parts of the world consisted of an increasing and a decreasing series of changes, the bottoms of such lakes as Bonneville and Lahontan must preserve the record. Some day it will be possible to investigate the dry beds of these lakes by borings, and the theory can be adequately tested.

CLIMATE AND HISTORY.

In the concluding section of this report I shall deal briefly with the main object of our expedition, to which the preceding sections have been tributary. Iran is one of the countries which will most readily furnish an answer to the question of the relation of history and physiography, for the country has been inhabited by man from remote antiquity. If man inhabited the earth during the later glacial or fluvial epochs, Iran would probably have been peculiarly favorable to his development by reason of the relatively warm climate and moderate degree of rainfall which it appears to have enjoyed. A few facts bearing on this subject may indicate the line along which a solution of the problem will perhaps be found. History, archeology, and tradition all present certain features which seem to point to a greater rainfall in antiquity than at present. Physiographic evidence points in the same direction. The question is: Do the two sets of facts show points of contact, and does the same theory explain them all?

THE ANCIENT CLIMATE OF IRAN.

Many writers on Iran have referred to the possibility that in antiquity the rainfall of the country was greater than now. For instance, Blanford (*a*, p. 500) states that "from the accounts given by ancient writers it appears highly probable that the population of Persia was much greater and the cultivated land far more extensive 2,000 years ago than at present, and this may have been due to the country being more fertile in consequence of the rainfall being greater. Some alteration may be due to the extirpation of trees and bushes, the consequent destruction of soil, and increased evaporation; but this alone will scarcely account for the change which has taken place." Sykes (p. 364) expresses the same opinion: "Alexander's march with a large army and a huge camp tends to show that Asia was, in his day, not so arid as at present, and it would seem possible that in a sense my observations in Sistan support this contention." In various places he elaborates this view and presents other evidence. The Rakshan Valley, for instance (pp. 234-235), in western Baluchistan, 300 miles southeast of Sistan, is a stream of exceedingly salt water flowing in a wide, shallow valley and discharging into the Mashkel River. The marches up this valley were "intensely monotonous, day succeeding day without a sign of life being anywhere visible, yet we could interest ourselves by speculating on the causes that had swept away the population from this valley, which for mile