

appear to have been changes of climate, and . . . some of the changes took place very recently, probably since the occupation of the country by man." — „The chief evidence of climate changes take the form of enormous lacustrine and fluvial terraces.“ Über die Veranlassung der Klimawechsel sagt er: „The uniformity of the terrace phenomena throughout the semi-arid countries of the western half of Asia seems to be explicable only on the theory of a succession of epochs of changing climate corresponding to the glacial epochs of more northern countries.“

Dann gibt der Verfasser eine Beschreibung des Seistanbeckens. Von allen persischen Depressionsgebieten liefert es die besten Gelegenheiten zu geologischen Studien. Durch spätquartäre vulkanische Tätigkeit ist nämlich der Boden an mehreren Stellen gehoben; hier hat die Erosion schöne Profile von 50 bis 600 Fuß Höhe herauspräpariert. Die Ablagerungen sind auch oft von Lavadecken geschützt. Alles deutet an, daß Seistan früher ein großes Binnenmeer war. Huntington behauptet, die günstigen Verhältnisse Seistans lieferten der Forschung den Schlüssel für die übrigen Becken, z. B. das kaspische Becken und für viele andere. Ich zitiere seine Übersicht über die Ablagerungen Seistans¹:

„The deposits uplifted at the time of the Sistan volcanoes and exposed to view by the erosion of the lake consist of reddish clayey silt varied with bands of sand and gravel on the one hand, systematically alternating with remarkably uniform unbroken layers of hard, greenish clay on the other. The reddish layers contain lateral unconformities, discontinuous layers of coarser material and raindrop prints, which indicate that they are of subaerial origin and were laid down by running water or in playas when the lake floor was almost free from permanent water, and hence during epochs of aridity. The green clays on the other hand are so fine-grained and uniform in texture and so free from changes of structure that they appear to be lacustrine deposits, laid down at a time when the lake was full of water, and hence during epochs of more abundant moisture. The entire formation of alternating reddish and green strata is most satisfactorily explained on the theory that it is the product of a series of climate oscillations during which the lake was first dry and then full. The history of the region after the volcanic eruptions is recorded in gravel deposits which overlie the strata just described and alternate with fine gravel and in terraces which dissect all the strata. The gravels and terraces appear to indicate a continuation of the climatic oscillation down to very recent times. The total number of oscillations amounts to fourteen or fifteen and may have been more.

„As one ascends from the bottom to the top of the deposits, the greenish layers increase in frequency and to a less extent in thickness up in a certain point, while the red layers become correspondingly thinner. After the green beds have reached

¹ HUNTINGTON, a. a. O., S. 224.