

and, in more recent ages, deliberately built them for citadels. It is often possible to recognize in gully sections what kind of a mound one is dealing with.

In diverting rivers and streams to irrigate wide areas of cultivation, man has been a director of alluvial depositions.

In general, it was found that mound remnants of occupation are numerous over all areas, both of alluvial clays and of loess, that were accessible to running water; that is, the ancients made their cities and towns wherever there was water to drink and flat clay or loess ground to build on and of. On the other hand, all areas of stony steppe, where there was no clay for vegetation or building material, are barren of these remains.

Knowing that ancient oases are to be looked for and how their remains appear, the next two questions that rise are, first, where to look, and second, what chance is there of anything very ancient still remaining?

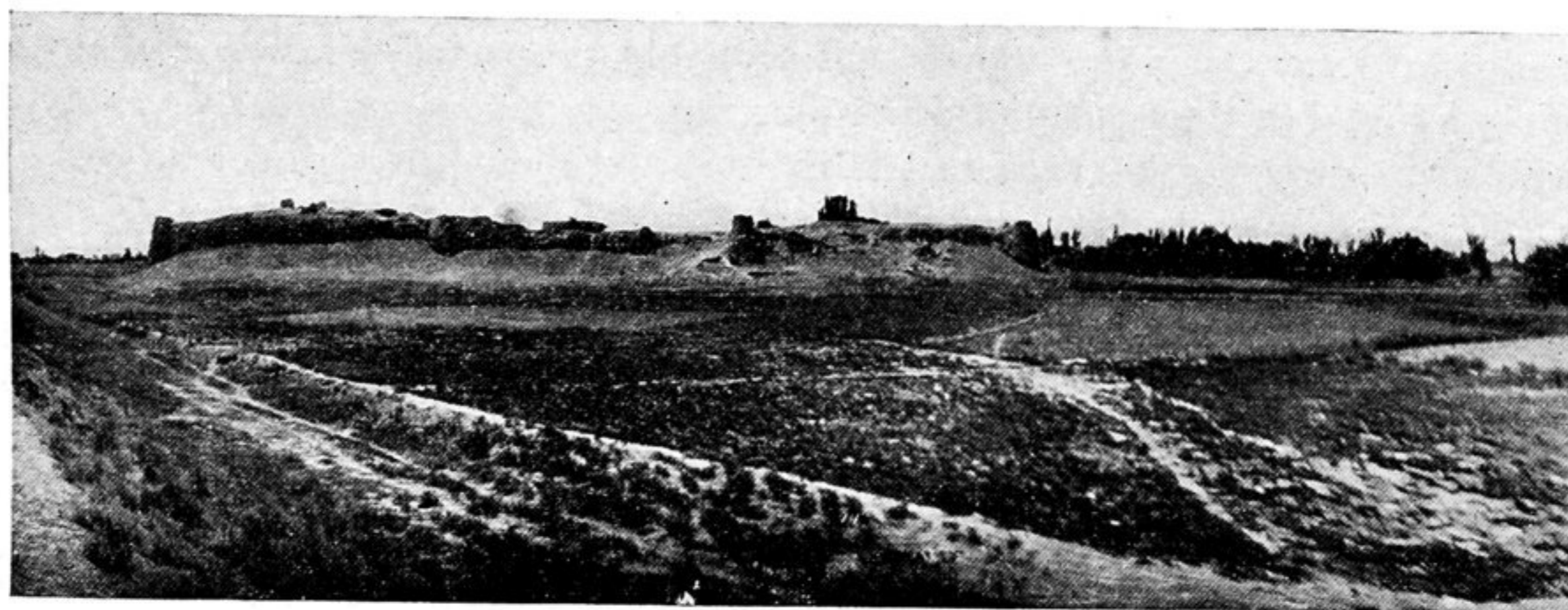


Fig. 469.—A Ruined Citadel on the Lower Zerafshan.

#### PHYSIOGRAPHIC CLASSIFICATION OF OASES.

Before answering these questions it is important to understand the present distribution of oases and cast them into a type classification based on natural forces and their products with man. Such a physiographic classification results in five types remarkably distinct in their reactions upon civilization.

- (I) Delta Oases: (a) of rivers; (b) of small streams.
- (II) River-bank and flood-plain oases.
- (III) High-valley oases.
- (IV) Spring and well oases.
- (V) Lake-shore oases.

Examples of all five are still to be found in their full life. At the ends of the Murg-ab and Zerafshan lie Merv and Bokhara, our two best examples of type Ia, while type Ib is found all along the edge of Central Asia's desert plains, where small streams discharge from the border of its inclosing ranges. The important difference between Ia and Ib lies in the effect of climatic change. Oscillating degrees of precipitation over the catch-basins of larger rivers involve a corresponding oscillation of the distances to which they penetrate the desert, so that the positions of type Ia were ever shifted out and back, whereas smaller streams,