those supplying type I*b*, as long as they reached the plains, could effect no more than a corresponding oscillation in magnitude of population. Moreover, type I*a* was always far more in danger of being overwhelmed by sand.

Type II, river-bank and flood-plain oases occur along the courses of large streams, especially the Zerafshan. Type I is thus, to a certain degree, at the mercy of type II, in danger of losing part or all of its water-supply to pirating canals tapping the river above. Type II is relatively unaffected by climatic change till extreme contraction leaves it beside a dry channel. But warping of the earth's crust has in some instances, such as Samarkand, seriously affected type II. Both type I and type II are relatively exposed to invasion by hostile people.

Type III, or high-valley oases, are common throughout the mountains of Central Asia. Lying for the most part on the terraces of large valleys, they depend on small tributaries for water-supply. Their irrigable area being limited by the terraced nature of their topography, this type of oasis has in general commanded an excess of water-supply and probably supported a relatively constant population and in their isolated conditions must have produced marked individualities of culture in a civilization left to work itself out through a long series of unmolested generations.

Type IV.—Examples of both spring and well oases are still to be found far out on desert plains among the sand-dunes, as well as at rare intervals in the mountain wilderness. Few of them are more than nomadic camps or mere caravan stations on long trails of trade, and though real self-supporting centers of life in an otherwise lifeless region, some people would deny them the name of oasis. There is, however, a remarkable kind of spring oasis, really of artificial springs, that has been of great importance, especially in Persia and along the Persian frontier of the Turkoman Steppes. There it has been contrived to tap groundwater at the base of the mountains with a series of shafts connected by tunnels, leading it ever nearer the sloping surface of the plain until it is discharged at the oasis. The city of Askhabad, capital of Transcaspia, and many others along that belt, as well as farther east, are examples of such artificial spring oases. It is an old Persian method, doubtless introduced during the early Persian rule of this region, and is known as the Carice system.

Type V.—Mr. Huntington visited lake-shore oases in Persia. Theoretically it is a type of great interest. We hope that future exploration may disclose the mound remnants of oases on now dry shores of the ancient Aralo-Caspian Sea and vanished lakes that lay towards the Arctic. Modern science has developed a new kind of lake-shore oasis, that on salt-water shores. Baku and Krasnovodsk are extraordinary examples of this class. All their water is distilled from the Caspian and there is every reason to suppose that other cities will be founded on their plan along the coasts of interior seas of brackish water. To what extent the ancients irrigated fresh-water lake-shore oases, we know not as yet; but there is no reason to suppose that irrigation was not carried on by them over flat areas near water-level in the same way in which Egypt has for many thousand years watered the flood-plains of the Nile.