was found to be at 20 feet below the surface of the plain, while a shaft (North Kurgan west shaft 1) 200 feet distant disclosed culture-strata down to a depth of 28 feet, belonging to a part that had been overgrown by the rising alluvial growth. Not only was this true of the North Kurgan, but it was found that the much younger South Kurgan also was based 20 feet deep. On the other hand, the base of the younger city of Anau was found to stand only 15 feet deep. The fact that two kurgans, between the beginnings of which the time-interval could be reckoned only in thousands of years, had been buried to the same depth, clearly presented a physiographic problem of great interest. It seemed, too, that its solution should aid in correlating the history of the successive cultures of the region with the course of natural events.

I decided, therefore, to attack this problem with shafts, while Dr. Schmidt was directing the purely archeological excavations. From the beginning the shafts

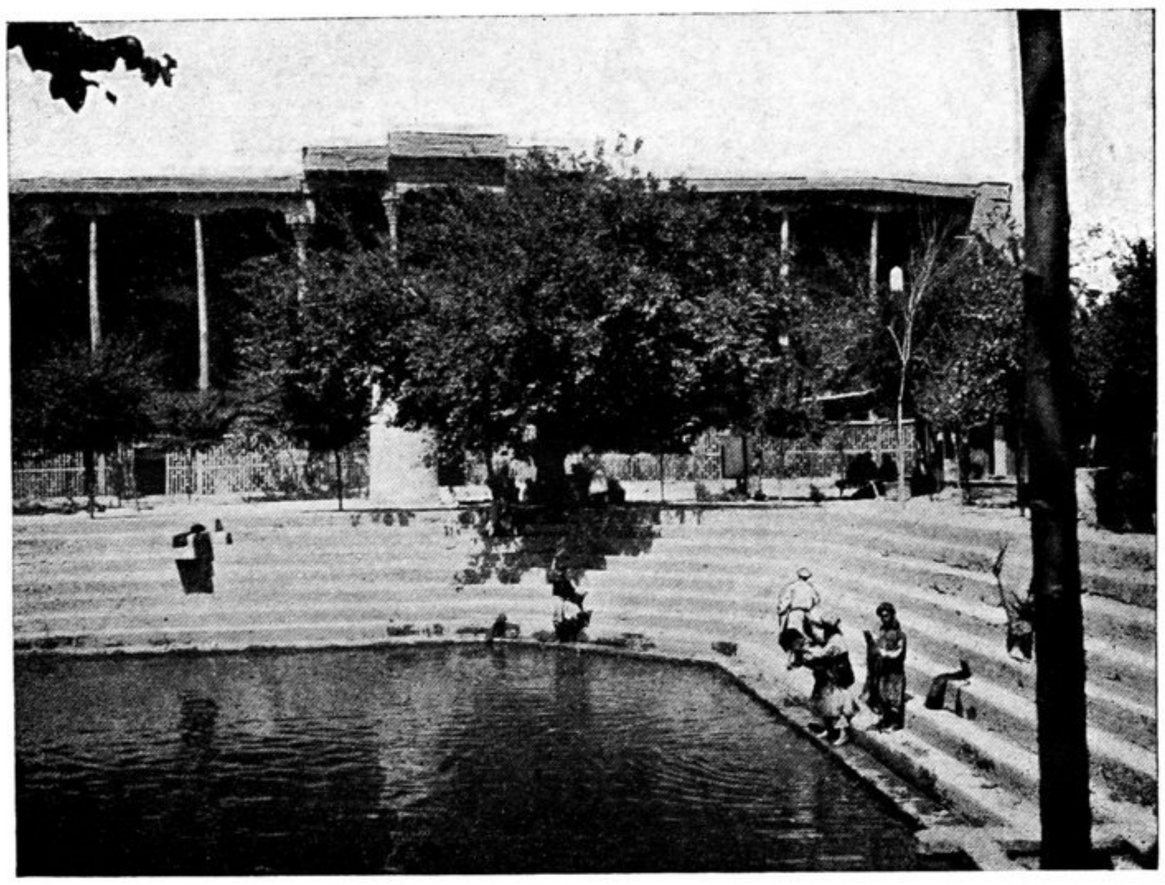

Fig. 7.—A Pool in Bokhara.

showed that the records left by man and those buried by nature ran parallel, and that a study of each was essential to a good understanding of the other. They showed also that much of the physical history of the region, as well as of its human record, could be read only underground. It was found that during the existence of the two kurgans there had been a succession of alluvial growths with intervening degradations, succeeded in the end by a considerable thickness of irrigation silts. There were, therefore, three kinds of growths—natural sediments, irrigation sediments, and culture-strata. It was clearly desirable to obtain some light on the relative rates of these growths, for, having this, if we should be able to determine the rate of either one in years, it could be applied to all, including the culture-strata.

There were sunk 24 shafts. Nine were intended to determine the thickness of the culture-strata and the character of the underlying natural formations. Two