

combined population of the two must have been about equal to that of modern Chira. The chronicle does not mention Dumuka and Ponak, but there is a local tradition that their Buddhist inhabitants fled from the Mohammedans and went northward down the Keriya River to Ak Su, crossing the Takla-Makan desert where now there is no water and no road. As to the other chief village of the region, Gulakhma, between Chira and Dumuka, tradition says that it has occupied the same location from time immemorial. As it occupies the site where the waters of its river can most easily and with least waste be utilized, and as there are traces of ruins in the suburbs, there is no cause to doubt the tradition. Choka, on the upper part of the Karatash River, which waters Chira, was inhabited at this time, it will be remembered; and we have seen reason to believe that the slope of the mountains whence flow the rivers of Chira, Gulakhma, Ponak, and Dumuka was then occupied by a population of Kalmucks, more numerous than that of to-day. Thus it appears that about 1000 A. D., not only was the total population supported by the rivers larger than it now is, but the streams flowed through the modern villages, where their water is at present entirely consumed, and reached places like Ulugh Mazar, ten or fifteen miles farther north. This could happen only if the rivers were decidedly and permanently larger than now. There has been no diversion of the upper waters of the rivers except in the insignificant and easily preventable case of a small part of the Ak Sai or Dumuka River; and there is not the slightest evidence that the irrigation system of the past was better than that of to-day. The true cause of the