

before. Its occurrence was believed by the Lopliks to have been caused by the recent construction of a big *tugh* or weir on the Tārīm above Tikenlik, intended to fill a large reservoir which was to assure irrigation to a new area of cultivation at that colony (Map No. 25. c. 3). On the other hand Tokhta Ākhūn remembered a big summer flood about 1892, which reached the terminal course of the Tārīm, when all the grazing grounds to the west of the chain of terminal lagoons known as Yangi-su and Kakmak-chash (Map No. 30. c. 1) were inundated and the sheet of flood water extended for a day's journey beyond Chainut-köl.

Our observations on that day and on the following two marches clearly proved that the process of drying up which I had noted when traversing this ground in December, 1906, had continued since. I need not refer here in detail to the significance of this process, as the general conclusions to be drawn from it have already been indicated in *Serindia*.² Nor do I propose to discuss here the bearing which these alternating periods of extended inundation and drying-up, as observed in this marginal area of lagoons formed by the drying Tārīm, may have upon the question of the shifting of the area of these terminal marsh beds as a whole. In the present publication I must be content with a record of physical facts actually observed and with the interpretation of them only to the extent that they affect questions of direct topographical or antiquarian interest.^{2a} The examination of those facts in their wider geographical bearing would demand close analysis of the observations made by others, especially Dr. Hedin, on the same or neighbouring ground, and the study of parallel phenomena over other parts of the globe. It is a task that, in spite of its appeal to my interest in geographical problems, I am obliged for various reasons to leave to another occasion or to more competent hands.

At the close of the first march from Abdal we passed our old camping place of 1906 near Alam-khōja-köl (Map No. 30. c. 1); finding this depression now quite dry, we had to move about a mile and a half to the east in order to find a lagoon, the Uzun-köl, containing ice (Fig. 122),³ and here we took up our water-supply. Thick slabs of solid fresh-tasting ice were cut overnight, and packed in stout woollen bags, and nineteen of our camels were loaded with them in the morning. The day's route leading to Chainut-köl lay for the most part from two to four miles east of that followed in 1906, as numerous depressions which then held swamps or open sheets of water were now dry and could be crossed without trouble. All these depressions showed channels connecting them with the Kakmak-chash line of lagoons eastwards, and these channels, as Tokhta Ākhūn explained and Afrāz-gul's observation eleven months later confirmed, still received water each spring, though the volume had greatly decreased.

The *shōr* or salt incrustation covering the bottom of these depressions was thin. My attention was therefore specially attracted, on regaining our old route near Camp 119 of 1906, to a small basin entirely covered with big cakes of hard salt, usually polygonal in shape and upheaved at the edges, exactly like those I had often noticed when marching along the south shore of the dry bed of the ancient Lop Sea. According to Tokhta Ākhūn the peculiar formation of the salt-crust in this and similar isolated basins was due to water oozing out from the bottom of them when the lagoons farther south are reached by flood water. In view of the vast extent of the ground over which we became subsequently only too familiar with this peculiar form of salt-crust in the great Lop depression, Tokhta Ākhūn's observation may deserve passing notice. The Chainut-köl lagoon, which we reached that evening and which in December, 1906, still showed a large sheet of salty water,

² See *Serindia*, i. pp. 352 sq.

^{2a} [The special map of the Lop Desert prepared by me on the scale of 1 : 250,000 for eventual issue with the present work will, I hope, help to illustrate those facts more clearly.]

³ Through a slight error of compilation Map No. 30. c. 1 shows the symbol for our Camp LXXXVIII of 1914 in the same place as Camp 118 of 1906. It ought to be shifted to the point marked by the entry *Uzun-köl*.

Alternate periods of inundation from Tārīm.

Across dried-up depressions.

Formation of cakes of salt-crust.