

With a couple of canoes, and men who knew the country to paddle them, I now penetrated eastwards from the northern river-arm, the Kum-tschapghan, my object being to ascertain whether the marsh had undergone any noteworthy alteration since I saw it in 1896. After spinning down the river-arm proper on the rapid current, we plunged into the tschapghans, or narrow channels, which are kept open through the reeds for the fishing. Leaving on our right a tschapghan that connects with the village of Tusun-tschapghan, we paddled across the Tusun-tschapghan-köl, which extends from south-west to north-east, though the next basin, the Usun-köl, stretches east and west and has a maximum depth of 2.20 m. On the other side of Bel-tschapghan, 3.12 m. deep, we once more emerged upon an active current (0.56 m. velocity in the second), which however, dividing three times in succession, in that way spreads itself out over the marsh. A great number of nets were let down in its entrance-channels. Proceeding, we passed on the right the spot where the former village of Örtäng stood. Then came a lofty tamarisk-mound, crowned with a nodding plume of branches, projecting above the reeds and surrounded on all sides by water, and then on both sides of our route innumerable others of a similar character. What now is the cause of their being thus situated in the midst of the watery wilderness of the Kara-koschun, and how is it that the action of the water round their bases has not long ago destroyed them? One thing is *a priori* perfectly certain, namely that they are older than the lake; for tamarisk-mounds never arise in a lake or marsh, nor do tamarisks ever strike root in such situations. On the contrary, any that happen to be growing in a hollow basin begin to die when the waters come, as I had numberless opportunities of observing. The mounds persist of course somewhat longer, especially those which do not come directly into contact with the flowing water. In the long run however they are bound to go too. As soon as the tamarisk-bush dies, the resisting power of the mound on which it grew is at an end, and the skeleton of the binding roots begins to rot and wither up. After that the mound, like a ruin, becomes the prey of the wind, and of its transporting and leveling activities. In view, then, of the perishable nature of both the organic and the inorganic material, we may with a fair amount of confidence say, that it is not very long since the water came and encircled these mounds, and that this lacustrine region, at any rate in so far as this particular part of it is concerned, is a new creation, in any case not more than a few hundred years old. Generalising from this law, which does not admit of contradiction, we may venture to affirm, that those parts of the Kara-koschun in which tamarisk-mounds exist are of comparatively recent origin; and this applies to the greater portion of its area.

At Scharkurama (= »cataracts», »waterfall») our stream turned to the north-north-east, with a pretty lively current. Then, entering the Numet-tschapghan, we traveled for a while towards the north-west. Here on our left there was firm ground, with tamarisk-mounds, and to the south-west we perceived other expanses of open water, probably independent sheets with brackish water. For a short distance indeed we had firm ground on both sides of us. In other words, the Numet-tschapghan* there cut through a neck, forming a shallow, winding canal. The water is

* The proper meaning of *tschapghan* is »dug»; consequently Numet-tschapghan is equivalent to »dug by Numet». The verb is *tschapmak*, »to dig». Used as a substantive, *tschapghan* = »canal».