

the same appearance as the Tarim presents now — the same breadth, the same depth, the same distinctly marked erosion terraces, and moreover it flowed parallel with the existing river. The only difference between the two is therefore this, that whereas the old river-bed was shaded by poplars, the existing stream has bare banks. And yet this forest was nothing like so thick and vigorously grown as the primitive forest is in many parts on the banks of the Tarim. It never had time to attain to full maturity, in this resembling the forest beside the Ettek-tarim; the water ceased to visit the roots of its trees before these reached a good middle age. There is, further, a great difference between this dead forest and the dead forest we subsequently found along the course of the Kuruk-darja; the latter is as brittle as glass, and all that remains of it *in situ* are the trunks and an occasional branch, though there are numerous trees lying on the ground. Beside the old river to the north of the Tarim the case is however different: there all the trees are still standing on their own roots and the minutest twigs are still preserved; and, besides, the timber is of such a character that it is plain no great space of time can have elapsed since the sap coursed up it, giving vitality to the tree above. In other words, the timber is quite good enough to use for building material; and it is indeed used as such for constructing new huts at Jurt-tschapghan. Hence there cannot exist the smallest ground for doubting, that the Kuruk-darja is older than the dried-up river-bed I am now discussing, though it again is older than the existing Tarim. Further, it is easy to understand that the dried-up river-bed must have been the chief artery of the Tarim system during a longer period than the existing Tarim-bed has been. And the difference between their ages is very considerable, for it may be confidently taken for granted, that a long time must elapse before forest will grow up beside the lower Tarim as vigorous as is that which has been condemned to shrivel and die beside the old river-bed, when the stream deserted it to take yet another step onwards in its migration to the south.

Old kamisch stubble is likewise extraordinarily plentiful on both sides of this old river-bed; in fact it occurs everywhere where the ground is not already occupied by dunes about 2 m. in height. These last are however now increasing in numbers. In this respect too we may confidently assert, that the conditions of this former course of the river were the same as those which obtain in the case of the existing stream. Extensive marshes and marginal lakes, the results of the river's periodical overflows, have given origin to dense fields of kamisch, precisely as we see to-day in, for example, the lakes of Abdal. A little further on the sand becomes practically continuous, except for the mounds of the dead tamarisks, though the dunes are seldom more than 4 m. in altitude. At intervals furrows or trenches in the clay sub-soil, called *jardangs*, traced between long elevations or ridges, crop up amongst the dunes, and make travelling difficult, owing to the fact that our route led up and down across them. For they all run towards the south-west, and thus betray the source of their origin — the predominant wind. Finally, after threading our way through a veritable forest of *kötäk*, or dead tree trunks, embraced and enmeshed by the dunes, we were surprised by the sight of a wide lacustrine region, with tall yellow kamisch, stretching east and west as far as we were able to see, though bordered on the north by dunes and tamarisk-mounds. The sheets of water are for the most part hidden