

tunity to complete his map, which does not warrant any safe inferences with regard to the orographical structure. For instance, from it one cannot make out how the chain, which I have called the Lower Astin-tagh, runs as compared with his route. The map does, it is true, convey the impression that the chain lies the whole of the way north of his itinerary, until at Ghuletschen-bulak it comes entirely to an end. The fact that his route goes over two passes makes it very doubtful whether he ever did cross the range at all. But, as I have said, the map is not sufficient to settle the point.

And the same insufficiency attaches to the information which I received from my guides with regard to that lower route; yet the principal items of what they did tell me, such as they are, I will at any rate communicate, for they do throw some light upon the geography of the region. My men also drew for me a couple of sketch-maps, although with regard to their topography they are extremely unreliable and not worth of being reproduced. The nomenclature is however always of interest, and the mutual situations of the places with regard to one another will probably be correct.

The itinerary in question begins at Basch-kurghan and proceeds up the broad glen which we saw from that point opening to the east, and which terminates at the transverse glen of Tatlik-bulak. After that it follows for some distance the valley between the two chains of the Astin-tagh. Two other glens also converge upon the transverse glen of Tatlik-bulak, namely that of Kamisch-bulak and that of Tschokoluk-saj, both originating at Tschokoluk-tus, an open area in the Upper Astin-tagh. And through the same breach the glen of Semilanu-jan-bulaghi makes its way; this glen furrows the southern flank of the Lower Astin-tagh, consequently the chain is not pierced here. To the same system belongs also a *tus-jer* (an open area), that is to say a latitudinal valley, but situated farther east. Towards the eastern end of this last there is a small pass or water-divide; and from it the drainage flows away west to Tatlik-bulak and east to Satschkan-saj, the latter picking up from the right the glen of Kurbani-kosch-bulaghi, the name of which seems to suggest a perennial spring. Hence the two last-mentioned glens would appear to cut their way through the Lower chain.

Next comes the glen of Dscho-bulak, which according to the description would seem to be rather complicated. It originates in the Upper Astin-tagh and pierces the lower range, describing a big loop, in that it flows first east, then north (including the breach itself), then north-west or west-north-west, and finally north or north-west, after which it dies away in the sandy desert, leaving a foothill range on the right. During this course it picks up a whole series of side-glens. Dscho-bulak begins apparently at a threshold in the latitudinal valley between the Upper and the Lower Astin-tagh; from the same threshold starts its side-glen, Musluk-saj, which, running north, breaks through the Lower Astin-tagh and joins the main valley soon after emerging from the mountains. Meanwhile the Musluk-saj itself picks up two smaller subsidiary glens from the west, namely the Kalama-saj, which starts in a part of the great latitudinal valley called Japkaklik-tus and pierces the Lower Astin-tagh, and the Atschik-bulak, which likewise is a transverse glen with a salt spring. The part of the Dscho-bulak which proceeds towards the east is situated in the great latitudinal valley, and is