

passes having altitudes of 5521 and 5042 m. respectively, although lying relatively close together, may actually belong to one and the same range, despite the fact that the difference of altitude between them is not less than 500 m.

On the basis of the routes I have mentioned, I believe I am able to identify four different ranges in the middle Arka-tagh, the one furthest north being the most uncertain; or possibly it ought rather to be regarded as being divided into two or more broken parallel ranges or foot-hills. But in the meantime let us take it as it is and make the best of it. In this range we have three passes at 5280, 4779, and 5005 m. respectively, giving a mean altitude of 5021 m. The »Col du Vent» of Bonvalot appears to be situated in this range, but he gives it no altitude. I also crossed this range through the gorge of the Toghri-saj, but of course in a transverse glen. Proceeding another step southwards, we come to the second range of the Arka-tagh (Arka-tagh II), with the following known passes, proceeding from west to east: — 5250, 5203, 5189, and 5130 m., giving a mean altitude of 5193 m. The second of these passes, which I crossed over on the 30th September 1900, in comparison with the passes which lie south of it on the same meridian, is so sharply defined that I do not hesitate to say, it is the main range of the Arka-tagh in which it is situated. And evidently Bonvalot's »Mts de Niatz» lie in the same range, though, as usual, he gives no altitudes, notwithstanding that this is the very place where they are particularly wanted.

In the next parallel range (Arka-tagh III) we have passes at 5436, 5080, 5203, 5450, and 5122 m., giving a mean pass-altitude of 5258 m. The fourth of these values is taken from Bonvalot, and to a slight extent impairs the trustworthiness of the mean altitude, which after this pass is excluded drops to 5210 m. Finally, in the southernmost range of the Arka-tagh (Arka-tagh IV) we have the following pass-elevations — 5519, 5521, 5116, 5042, and 5111 m. This is the range which I crossed over by the second of these passes in 1896, the altitude of the pass, 5521 m., being very close to that (5519 m.) which De Rhins gives for »the southern Kara-muran pass», situated immediately west of my pass.

This is the range the position of which can be most easily determined, for it is that which overlooks from the north the latitudinal valley down which I travelled in 1896. From the pass with an altitude of 5521 m. the surface slopes down to the bottom of the latitudinal valley at lake No. 1 (Camp XII) regularly and uninterruptedly, without crossing over any foot-hills. I also crossed over this great latitudinal valley at three other places, all lying east of that pass, and do not hesitate to say that the first pass on each of these three routes belongs to the same important range as that which we crossed over by the 5521 m. pass. Upon joining all these passes together, we find that the line so made runs perfectly parallel to my route down in the latitudinal valley, and that route followed, for convenience of marching, the lowest trough in the valley itself. The mean pass-altitude in this range amounts to 5262 m. Hence both the direction and the position of Arka-tagh IV may be regarded as fairly well established, and in point of fact it may be taken as affording a key or base for locating the other ranges that lie to the north of it. On my provisional map they are drawn as near as possible parallel with the key range.