

Ulug-art aul with six tents on the top of the terrace, and also with a beautiful view. The inhabitants were of the Kipchak tribe and pass the winter at *Bustan-terek* and *Chimgan*. The Bek of the Kirgizes of *Ulug-art*, *Yaman-sara* and *Ayag-art* was said to have his tent at *Bustan-archa*.

Like *Terek-davan*, the *Ayag-art* was said nearly always to be passable.

Between the two *auls* the rock was hard and quartzitic, and was situated 19° N. 60° E.

On July 17th we had to travel 11.6 km. to the west in order to reach the pass of *Ulug-art*, and thence 24 km. W. S. W. to the next camp at the mouth of the valley *Tuyuk-dur*. The upper *aul* of *Ulug-art* was at an altitude of 3,762 m., the pass is 5,150 m. high; the ascent is therefore no less than 1,388 m., which is indeed a stiff climb in such a short distance; the rate is as 1:8.4. The camp of *Tuyuk-dur* on the *Sarikol* side of the pass was at 3,796 m.; the descent was therefore, 1,354 m., and the rate of the fall as 1:17.8. As could be expected, the slope down to the depression of the *Tarim Basin* is twice as steep as the slope to the high valley of *Sarikol*, or rather to the northern continuation of the *Sarikol* proper.

The one day of crossing *Ulug-art*, »The big pass«, was one of the hardest I have ever had in Asia. Eight Kirgiz from the upper *aul* accompanied us with two ponies and some provisions. The winding path leads up through a narrow, deep-cut gorge with a very steep ascent. In its bottom a little brook from the pass flows amongst round gravel of gneiss and crystalline schist. On both sides the gorge is bounded by steep terraces of pebble and shingle, the tops of which are more level or rounded, covered with some grass and moss amongst gravel, and here and there with swampy ground kept wet by melting snow at the sides. Wild rocky cliffs raise their heads above them. The sides of the terraces fall very steeply, sometimes perpendicularly down to the brook, the water of which is perfectly clear. On some of the grassy slopes of the valley, Kirgiz shepherds were tending camels and sheep.

At 6.30 a. m. the pass became hidden by dark clouds. An hour later it again became visible, but at 9 o'clock the whole region disappeared in impenetrable clouds and it began to snow heavily. The weather remained extremely unfavourable for nearly the entire remainder of the day.

At the southern side of the valley two small glaciers were visible. They were very steep and formed, as it were, cascades and falls of ice. At their perpendicular ice-fronts, rudimentary front moraines had been formed. Small brooks came down from their snouts, joining the brook in our valley. At the northern side of the latter only small apophyses from the ice-covering of the highest regions were seen.

The ascent finally becomes extremely steep and we enter the trough or »Mulde« at the eastern side of the pass, crossing the little brook every two or three minutes.