Daraut-kurghān, with its confined terraces on which, owing to exposure, trees will not readily grow. But at neither place did I learn of remains definitely indicating an early site. The selection of Daraut-kurghan for the fort from which it takes its name and for the modern customs post is accounted for by the facility it offers for watching the route to Margilan as well as that up the Alai valley.

## SECTION III.—ALONG THE WESTERN RIM OF THE PAMIRS

On August 2nd I started south, in order to strike across the succession of high snowy ranges Start south which separate the head-waters of the Muk-su and those of the rivers flowing through Roshan from Darautand Shughnan from the uppermost main feeders of the Oxus. It was the only route, other than kurghan. the well-known one passing the Kizil-art and Great Kara-kul, by which I could cross the Russian Pāmīrs and their western buttresses to Wakhān, and for this reason I chose it. It proved difficult to follow, even with such hardy animals as Colonel Jagello's orders enabled me to secure from the rare Kirghiz camps that we encountered. But there was abundant reward in interesting geographical observations and in splendid views over a high mountain region which had hitherto been but little explored.

The first day's march led up the stream coming from the Tars-agar saddle. In the fairly open Tars-agar valley we met with fields of oats, cultivated mostly without irrigation, up to Kūt-mazār, at an saddle and Sēl-tāgh. elevation of about 9,000 feet. On the saddle of Tars-agar, girt by old moraines (about 11,500 feet), where we found a small Kirghiz camp and halted, a truly impressive view was obtained of the great ice-clad range due south vaguely known as Sēl-tāgh or Muz-tāgh (Fig. 362).1 Even more imposing was the panorama presented by its huge glacier-furrowed wall, of which Fig. 363 shows only a portion, as it rose before me with magnificent abruptness; it overhung wide torrent beds in the deep-cut valley of the Muk-su, to which we descended next morning. This grand ice-clad range, forming as it were a mighty north-western buttress of the Pāmīrs, still awaits exact survey. But there seemed to me little doubt that its boldly serrated crest line rises well above 20,000 feet and that individual ice peaks on it reach heights perhaps as great as that of Mount Kaufmann.2

On descending into the Muk-su valley we found luxuriant fields and meadows surrounding Muk-su and the two dozen odd Kirghiz homesteads of Altun-mazār, at an elevation of over 9,100 feet. There Kayindi were plenty of trees to be seen about them. The snowfall of the winter was stated to be distinctly less than in the Alai valley. The Muk-su valley lower down contracts into gorges, quite impracticable as a route during the greater part of the year, and even during the winter very difficult. Our direct route past the Sēl-tāgh would have led up the valley (Fig. 358) by which the Zulam-art and Takhta-koram passes, giving access to the Kara-kul and Tanimaz river drainage areas, respectively, are approached. But the floods fed by the huge Sēl-dara or Fedchenko Glacier completely close this route from springtime till the late autumn. So we were obliged first to cross the several large branches of the Sawak-sai, which drains the southern slopes of Mount Kaufmann and the Trans-Alai farther west, and then to ascend the lower slopes of the spur which divides it from the Kayindi valley. Progress to the head of this valley next day was very difficult, the track winding for the most part through narrow ravines, blocked in places by ancient moraines and

the systematic triangulation which the Topographical Service of Russian Turkestan had started on the Pamirs, and which in 1915 was said to be steadily continuing in spite of the war, had fixed the true elevations of these worthy rivals on the Russian side of Muz-tāgh-atā and the Kongur peaks.

<sup>&</sup>lt;sup>1</sup> For a synopsis of Russian explorers' notices of this massif, cf. Geiger, Pamir-Gebiete, p. 135; ibid., p. 111, note 2 for greatly divergent height estimates of the Tars-agar saddle.

<sup>&</sup>lt;sup>2</sup> For earlier approximate Russian estimates of height, varying for the central peak from about 20,000 (?) to close on 25,000 feet, cf. Geiger, loc. cit., p. 135. It must be hoped that