

watershed to the western barriers of the glaciers draining into the Hushe valley. The wild and precipitous mountains of this region rise to a very considerable height, seven peaks being from 23,900 to 25,676 feet. Many of them are granite and gneissoid formations. The valleys between them are narrow and deep-cut.

The Workmans first marched to the Sher-pigang and Dong Dong Glaciers, both of small size, and then to the Kaberi or Kondus Glaciers. The next excursion was to Hushe from where they proceeded to the Aling, Masherbrum and Khondokoro Glaciers. Their observations did not always confirm those of GODWIN-AUSTEN:

Colonel Godwin-Austen, in the *J. o. t. R. Geogr. Soc.* 37, 1864, pp. 20—21, mentions his Survey work of the Khondokoro and Masherbrum glaciers in 1860 very briefly, devoting only seventeen lines to the description of them both, the first under the name of »Atoser». He does not state that he ascended the Masherbrum any appreciable distance, but on the Indian survey, sheet 44 A, S. W., on which this region is shown, what appears like a route-line runs up the nala on the west side of the glacier to a point marked 13,985, three miles above the end of the tongue, which, presumably, represents his route or that of some other surveyor and the point where it ended. That he did not go beyond this point would also appear from his statement: »Some five miles up, this glacier forks, each branch being about seven miles in length.» This statement does not accord with his own map, or with the Survey sheet, or with the conformation of the glacier as we found it in 1911.

The Masherbrum Glacier was found to consist of a single trunk. The peak of the same name was a brilliant sight as seen from S. W. Its height is 25,660 feet. On the 8th of August they again descended the Hushe valley.

Dr. Workman points out the conditions unfavourable to the preservation of records that might have been left on the rocks by glaciers of former ages, but he by no means denies glacial epochs in the Kara-korum previous to the present. He says:

When one takes note of the incredible amount of débris, which had been and is being brought down by the myriad glaciers of these great mountains and excreted by them as gigantic moraines, which lies piled up everywhere throughout the valleys in huge rock-heaps or tali, 1000 feet or more high, against the faces of the cliffs; which, accumulated in, has been washed out of the gorges by floods and deposited on the valley-beds as vast fans hundreds of feet thick and with a spread of more than a mile; all of it within recent geological time having formed portions of solid mountain-walls, one can understand how evidence left on rock-surfaces by former glaciers might be totally obliterated.

Part II of the book contains *The Conquest of the Great Rose, or Siachen, the World's longest non-polar glacier*. It is written by Mrs. FANNY BULLOCK WORKMAN.

This glacier was first seen by Colonel HENRY STRACHEY who in October 1848 ascended its tongue for two miles. At the close of their summer's exploring of 1911, the Workmans crossed to the Siachen and made a new reconnaissance of its basin. Two of its largest affluents were explored and a peak of nearly 21,000 feet was climbed.

In April 1912 they again were at Srinagar. From the Saltoro valley they went up to the Bilaphond Glacier, which had been ascended for six miles by VIGNE