

the shrinkage has been going on for a long time, and that there have been periods of arrest in this process when the glacier was stationary or slightly advancing, and that the glacier is still retreating.

The middle section of the Chogo has six medial moraines, but its upper part is poor in débris. It has 14 glacial branches, of which the southern are not receding. The northern branches are cut off.

In 1899 the Workmans had found much more water on the Biafo than they now found on the Chogo. But the latter has a stronger gradient and rises to a 3,000 feet higher level than the Biafo. They suppose that such water as does result from the sun's heat assists in converting the soft snow into *névé* and true glacial ice. The snow-line varied between 16,000 and 17,500 feet. Much of the snow they found was new from the repeated summer monsoon-storms.

Twelve specimens of rock were brought from the Chogo Lungma region, and it is a pity that the exact place where each specimen was found is not given. They are:

1. Granular crystalline limestone with grains of dark green augite («coccolite») and veins of quartz and yellow epidote.

2. and 3. Granular crystalline white dolomites; resemble marble, contain much carbonate of magnesia.

4. Hornblende schist.

5. and 6. Garnetiferous mica schists.

7. and 8. Hornblende granulites.

9. Quartz and chlorite.

10. Grey limestone and green actinolite.

11. Granular crystalline limestone with green chlorite.

12. Hornfels with concretion, produced by the action of hot intrusions of granite *etc.*

In the *nala* of the Hoh Lumba they found that it was filled with old glacial débris several hundred feet deep containing many boulders large and small, through which the torrent has cut its way. The terminal moraine of this glacier was the largest they had seen. All débris seemed to be heaped here, whereas almost nothing was left for lateral moraines. The tongue of the glacier had evidently been retreating probably for centuries.¹ Having climbed the glacier, June 21st:

It was easy to see that the glacier has receded not only in length, as shown by the hillock and the moraines behind it, but also in width, as the moraine itself most conclusively testifies. Its top is fifty feet or more above the present height of the ice, which also has shrunk a considerable distance away from it.

The recession seems to have been periodical. On the survey map only one glacier was marked here. They found there were two, Sosbon being the other.

¹ Op. cit., p. 203.