

feet above the neighbouring river-valleys, or 5280 feet above the level of the sea. Its summit has been heavily glaciated, the projecting rocky masses being worn into ridges parallel to the direction of ice-movement, the indicated direction of which is nearly parallel to a bearing N. 29° W. to S. 29° E. If not due to the general glaciation, these markings can have been caused only by ice from the coast-ranges; and though ice has flowed from these as from the other mountain masses of the province during the later portion of the glacial epoch, I believe the situation of Iron Mountain to be such as to preclude altogether this mode of explanation. The mountains of the coast-ranges are neither high enough nor so near as to supply a body of ice capable of overriding it.

On the plateau south of Kamloops glaciated surfaces have been found in several places at an elevation of about 3200 feet above the sea. The locality is far removed from any mountain-ranges capable of giving rise to extensive glaciers, being situated in the very centre of the interior plateau. The rocks are broadly ice-shaped and not unfrequently polished, more rarely distinctly striated. The direction of movement varies from S. 6° E. to S. 27° E. On another part of the plateau, north of the course of the upper part of the Nicola River between Stump and Douglas Lakes, at an elevation of about 3622 feet, are glacial traces similar to the last, consisting of polishing and striation without fluting, having a general direction of S. 9° E. Still another instance of this general glaciation is found on the granite rocks near Chain Lake, between Lake Okanagan and the Similkameen River, in latitude 49° 40' N. Here, as in the cases before mentioned, the circumstances seem entirely to preclude any explanation by local glaciers, as the portion of the plateau on which it occurs is fully up to the general level, and surpassed only by a few insignificant hills at a considerable distance. The rock-surfaces are beautifully polished, and show striation varying in direction between S. 20° E. and S. 28° E., but no deep grooving. The elevation is 4075 feet.

The Okanagan valley has been alluded to in the paper already referred to as the most important southern gateway of the interior plateau. The bottom of this valley, where it crosses the 49th parallel, is about 860 feet above the sea-level. It is wide, and must at one time have been much deeper, as its rocky floor is not now seen. It occupies the axis of a general depression of some magnitude, and appears to have carried the drainage of a great part of the interior of British Columbia at a former period. This valley has probably been subject to heavy ice-action during the time of general glaciation; but to what extent the features now found may be due to this, and in how far to a subsequent period when, as a narrow arm of the sea or of a great lake, it carried southward ice produced by glaciers nearer the mountains, it is now difficult to ascertain. Glacial striation was observed descending obliquely from the sides toward the centre of the valley, and also in several places in the valley itself, but in both cases without distinct grooving. The rocks of the sides of the valley are often distinctly *moutonnées*; and, as seen