

nces, pot-holed valley floors, etc., were produced. Moraine and other glacial materials were deposited in the valley bottoms, and have produced reversed slopes in most of the main valleys causing the waters to be dammed above, in the form of lakes. Tagish lake, including Taku arm, and Racine, Tushii, Fintail, Edgar, and Nelson lakes have all been caused in this way and represent the positions occupied by the last tongues of the retreating ice, which melted so rapidly toward the last, that the depressions they occupied had not time to become filled with detrital material.

The wide difference between the topography of the Coast range and that of the Yukon plateau seems to be due mainly to three causes. In the first place, the Coast range is composed largely of massive granitic rocks which do not possess bedding planes, nor alternating hard and soft layers to be emphasized by erosion, so that sub-aerial agencies have had no regular control and have thus produced very erratic forms. The irregular jointing plains in these rocks have also in places assisted in the production of bold, irregular topographic forms. Secondly, these granitic rocks are generally harder and in most places erode less rapidly than the rocks of the plateau and, therefore, have caused the Coast range in this district to retain a greater general elevation than the region to the east. Thirdly, since, for various reasons involving differential erosion and uplift, the Coast range is now higher than the Plateau region, it still contains glacial ice although the glaciers have long ago vanished from the plateau region. The glacial ice continues to accentuate the features of the Coast range, whereas in the plateau province, since its retreat, nivation has been active in the uplands smoothing over inequalities. Thus once a line of demarcation was established between these two terranes, their features have steadily become more and more contrasted.

GENERAL GEOLOGY.

The extreme northern and southeastern portions of Tak Arm belt are included in the Coast range and consist of Coast Range granitic rocks which are mainly greyish, coarsely textured granodiorites. The remainder of the area extends well out in the Yukon Plateau region and contains a considerable variety of geological