

surface would be everywhere strewn with foreign glacial materials, which is, generally, not the case. In places there is evidence such as the occurrence of striae and erratics, that ice has moved over the plateau surface, but the greater part of the upland is covered with local material produced by ordinary erosive and weathering agencies.

This plateau surface thus appears to form part of a region that during a long period of crustal stability was almost completely base levelled, and was reduced to a condition of old age. At the time of planation the Taku Arm upland must thus have formed a portion of a plain the edge of which was at or nearly at sea-level. The residual mountains that now constitute monadnocks rising above the plateau level, represent the only considerable elevations that remained to break the monotony of the former landscape. Base-levelling processes, which tended to reduce the entire plateau region to sea-level, were interrupted, before the reduction of these remaining hills, by an uplift which affected a great portion, at least, of British Columbia and Yukon.

The time during which this planation occurred, as well as the date of the subsequent uplift, are somewhat in doubt. The evidence obtainable in Taku Arm belt shows only that some time after the intrusion of the Coast Range batholith, which is thought to have occurred in Jurassic times, and also after the Jura-Cretaceous Laberge beds were deposited and somewhat deformed, this portion of the Yukon plateau, as well possibly as the adjoining portions of the Coast range, were reduced to a condition of but slight relief and that subsequently, but in pre-glacial time this district was uplifted to about its present position in pre-glacial time. Investigations by different geologists in various portions of the Yukon plateau and neighbouring terranes indicate, however, as described under "General Geology," that this planation occurred during Eocene, or pre-Pliocene post-Eocene time, and that the planated tract was subsequently uplifted during the late Miocene, Pliocene, or early Pleistocene epoch.

The amount of uplift is also somewhat indefinite. Taku arm is about 2,100 feet above sea-level, and Lower and Yukon rivers, which carry this water to the sea, have grades much in excess of rivers traversing a district in its old age. Further, it seems very improbable that the area, prior to uplift, was drained by a longer water system than the present circuitous one; in fact, investigations