

Into this upland surface in southern Yukon and northern British Columbia the main drainage courses have incised channels varying from 1,000 to 4,000 feet in depth, thus producing a very irregular topography. The summits of the interlocal hills and ridges, lying between the waterways, mark a gently rolling plain which slopes toward the north and northwest. The plateau, seen from a summit that stands at about the level of the upland, will impress the observer with its even skyline, sweeping off to the horizon, and broken only here and there by isolated, residuary masses that rise above the general level. This plane, however, bears no relation to rock structures, erosion having levelled the upturned edges of the hard as well as the soft strata; in fact, its surface is entirely discordant to the highly contorted, metamorphic rocks that make up much of the plateau, and, as is more fully discussed later, is evidently an uplifted and dissected peneplain, produced by long-continued sub-normal erosion during a period of crustal stability (Plate III).

Along the northern portion of the Coast range, the general summit level merges into that of the Yukon plateau, in a manner suggesting the synchronous planation¹ of these two provinces, a view that is held by Brooks, Spencer, and others; but during the various vertical movements that have affected these terranes, the uplift has been greatest along the axis of the Coast range and least along that of the Yukon Plateau province, which terrane is thus given the contour of a huge flaring trough whose median line is, in a general way, marked by the present position of Yukon river from near its headwaters in northern British Columbia to Bering sea.

The Taku Arm belt, which was surveyed during 1910, is for the greater part situated in the western part of the Yukon Plateau region, but also extends a short distance into the Coast range. There, no distinct line of demarcation indicates the boundary between the plateau and mountain provinces; these, instead, grade into each other, so that a transition belt occurs, generally from 1 to 4 miles wide, in which many of the points cannot definitely be said to belong to either terrane.

¹ Spencer, A. C., *Bull. Geol. Soc. of Amer.*, Vol. 11, p. 132.

² Brooks, A. H., "Geography and geology of Alaska," Prof. Paper, No. 45, pp. 286-290, 293, U.S. G. Survey.