

results, the valleys, prove, has been operative in the past also. This cutting up of the Canadian Cordilleras in comparison with the American is under such circumstances an indication that the general arrangement of the rainy districts on the west side of the Pacific has experienced no essential change for a considerable time but only oscillations.

It was already evening when we passed the Shuswap lake on the 4th of September, and that night we went past the Kamloops lake. Thus those of us who did not return by the C.P.R. lost the impression made by these great lake surfaces with their peculiar surroundings which form the rather dry plateau of the Canadian Cordilleras, lying enclosed between the Coast Chain and the Gold Range, an outpost of the great arid territory of the United States and like this latter distinguished by the outcrop of late volcanic rocks. On the morning of September 5th we found ourselves far down on the Fraser River which, for a while, follows a cretaceous trough on the eastern border of the Canadian Coast Range. These mountains rise not far from its banks to a height of 3,000 meters. But their proud heads were concealed in the clouds; our view was confined to the valley which indeed had enough to offer us. As a mighty stream the Fraser rushed along; we follow it upon a terrace of varying height. In several places, as for example at Hellgate, the valley narrows to a gorge, its walls rise over 1,000 meters from the river, which above such places seems to be dammed up, and has left plain highwater marks twenty meters above its September level. Laboriously and by astonishing feats of engineering skill the railway finds room. Here and there in the distance one sees Indian camps, inhabited by fishing parties and surrounded by platforms full of dried salmon. Besides these there are Chinese immigrants. They travel in bands along the railway line. The forest grows more and more luxuriant, the single trees rise like giants. Everything combines to make the journey through the Fraser canyon, as the magnificent valley is called, a most magnificent one, full of unique experiences.

The Fraser River gives the C.P.R. an outlet to the sea. It finds its way there south of the Canadian Coast Chain, where this range makes an obtuse angle with the North American Cascade Range. At this point it has descended to a level less than sixty meters above that of the sea and is bordered by broad alluvial plains. The projection of its great delta lies in the above-mentioned obtuse angle. Here rises beside it the volcano Mt. Baker, 3,256 meters high. A heavy rain shower as we were passing deprived us of this fine scenery; our view was confined to the delta, in whose great gravelly masses were embedded numerous tree-trunks which the river had brought down. A dense and lofty wood extended originally on all sides, but is now already cleared to a considerable extent. Here in an angle of the Straits of Georgia which the River Fraser has not yet filled up is the city of Vancouver, and here in a forest of gigantic trees still preserved in part, and within sight of the mountain is the terminus of the Canadian Pacific Railway. The line across the continent from Montreal to this point measures 4,677 kilometers; it is a journey of five days and six hours. Of this 946 kilometers and thirty hours' travel are taken up in traversing the Cordilleras. Certainly the longest mountain road in the world and everywhere uncommonly beautiful, more than three times as long as the longest of the Alpine railways—the Brenner line.

A large river steamer brought us from Vancouver through the Georgia strait in eight hours to Victoria, on the Island of Vancouver, the capital of British Columbia. It was an uncommonly instructive journey. The sky cleared, and the continental Coast Chain, 2,000 meters high, and the almost equally high mountains on the Island of Victoria became partially visible; between them we glided along over a surface smooth as a mirror, approaching a few small islands, which consist of evenly deposited cretaceous strata, and passing rapidly by the low alluvial land. All the banks are bordered with driftwood, brought down by the Fraser to the sea, which its muddy current troubles for a long distance from its mouth. By this one could realize vividly the geographical conditions under which originated the cretaceous strata that traverse the Canadian Cordilleras. They must have been deposited in narrow arms of the sea like the Strait of Georgia, in the neighbourhood of great river mouths which provided the wood for their coal deposits. Thus the present topography of the country still preserves features of times long gone by.