The Western Cordilleras.—These consist of a belt of lofty ranges, deep troughs and broad plateaux, extending for 1,400 miles through the Yukon Territory and British Columbia, and having a width of up to 500 miles. The Cordilleras are characterized by intensive folding, elevation and faulting, the intrusion of enormous batholiths—igneous masses that warped-up overlying sedimentaries—and by volcanic activity. They are made up, therefore, of folded sedimentaries, igneous masses and metamorphic rocks. Although older rocks are exposed, Mesozoic and Cenozoic rocks predominate. In Precambrian times the geosynclines formed, in which the Yukon group of sediments in Yukon Territory and the Shuswap group in British Columbia were laid down. Later vast depressions occurred where sediments gathered that are now folded into the Purcells and southern Rockies. The accumulation of great depths of sediment, 20,000 feet or more thick, continued through Palæozoic into Mesozoic times. Then in Jurassic times violent volcanism, folding and the intrusion of granites occurred in the outer belts, throwing up the Coast and Selkirk Ranges. The Rocky Mountain system came into being during Cretaceous and Tertiary times.

The whole region was partly planed down and there is a frequent accordance of summit levels. However, subsequent uplift led to a renewed attack on the land by river and sea, and deeply entrenched rivers, fringed by pronounced terraces, are common. Glaciation has further deepened the valleys and eaten into the divides, leading to knife-like ridges and horn-shaped peaks. Eventual drowning of the coastal fringe made islands of outlying ridges and deep fjords of coastal troughs, producing a highly articulated shore line.

The Cordilleras may be divided into five structures: the Rocky Mountain system; the interior basins and plateaux; the Coast Range; the Inner Passage along the coast; and the outer insular arc.

The Rocky Mountain system begins, in Canada, with the Richardson Range, of moderate elevation, heavily glaciated and then dissected by rivers on its flanks, but with no marked peaks. Southwards is the Peel Plateau of flat sedimentary rocks, eaten into isolated tablelands by river action. Farther south occur the Mackenzie Mountains, with more intensively folded ridges and ice-serrated peaks rising to 9,000 feet. These are separated from the Rockies proper by a pronounced gap, that of the Liard River. The Rockies are composed partly of highly folded beds and partly of nearly flat beds that have been uplifted to great heights. They are split by faults and have been attacked by rivers so successfully as to give way to low passes such as Finlay Forks, Pine, Yellowhead, Kicking Horse and Crowsnest. Three clusters of peaks occur, dominated by Churchill Peak, 10,500 feet, in the north, Mount Robson, 12,972 feet, in the centre, and Mount Assiniboine, 11,870 feet, in the south.

The interior basins and plateaux are considerably lower than the Rocky or Coast Ranges. On the east they begin at a well-marked break called, in part of its course, the Rocky Mountain Trench. This carries the headwaters of the Liard, Peace, Fraser and Columbia Rivers. The Yukon Plateau, in the north, lies between Dawson and Selwyn Ranges. It has flat summits that are separated by deeply cut rivers. Southward, it passes to the Cassiar Mountains, strongly intruded with igneous masses. Thence the Stikine Plateau runs as far as the Skeena-Hazelton Ranges, which are again largely of intruded igneous rock. South of these is the Interior Upland of British Columbia, a wide area of flat-topped uplands from 3,000 to 4,000 feet high, with deep, many-terraced rivers flowing between. The gorge