being deposited. Mineral deposits formed during sedimentation include the Wabana iron mine in southeast Newfoundland which terminated operations early in 1966 after about 70 years of continuous production. Some 490,000,000 years ago, molten ultramafic rocks rose from great depths and were emplaced as thin, tabular bodies mainly in the volcanic Ordovician areas. Subsequent alteration of parts of these folded, elongate bodies has produced the giant asbestos deposits of the Eastern Townships of Quebec, and one deposit being mined in northeast Newfoundland. Occurrences of nickel or chromite associated with the ultramafics seem of limited economic promise to date, although minor production has been attained. Silurian strata are rather similar to Ordovician rocks but are not known to contain large mineral deposits. Unlike the Ordovician submarine volcanics, some or most of the Silurian volcanics were formed on land. This may be one factor in the marked difference in known ore content of the two volcanic assemblages.

In Devonian time, granite batholiths were emplaced in the Maritime Provinces, and smaller stocks of the same age were intruded in Gaspe and southeastern Quebec. At this time, older beds were folded and metamorphosed to varying degrees, particularly near the margins of the granites. An important deposit currently being mined and supporting its smelter at Murdochville in central Gaspe will provide several tens of millions of tons of low-grade copper ore from altered limy slates above one buried granitic stock of Devonian age. Other similar deposits are being actively explored in the district. In Ordovician sediments near granites of Nova Scotia, scores of gold-bearing quartz veins were mined from 1862 to 1957 but the individual veins are not likely to be workable under present conditions. Fluorite in veins within Devonian granitic rocks at St. Lawrence, Newfoundland, have been mined since 1933 and currently yield all of Canada's production. Tungsten and molybdenum deposits associated with granites in central New Brunswick, southeast Quebec and southern Newfoundland are re-appraised periodically but have not been mined.

Following the folding and granite intrusion that formed the Appalachian Mountains, adjacent basins were rapidly filled with coarse and progressively finer-grained detritus eroded from the adjacent mountains. Some areas included marine beds, such as the petroliferous Albert shales of eastern New Brunswick which yield oil and gas. Other areas were the sites of rhyolitic volcanism early in Mississippian time, and rocks of one such centre in southern New Brunswick contain a deposit of tin, lead, zinc and molybdenum, which has been extensively investigated. After initial infilling of basins, shallow Mississippian seas encroached on the valleys and deposited limestones. Where evaporation exceeded the rate of saltwater inflow to these marine basins, evaporites were precipitated to form commercial deposits of rock salt and gypsum, and known occurrences of potash minerals. Native sulphur in unknown quantity is associated with evaporites in central Nova Scotia. A large deposit of barite with associated lead-zinc-silver ore is mined from replaced Windsor rocks at Walton, Nova Scotia, and many rather similar occurrences are known elsewhere in Windsor limestones. Many thousands of feet of clastic sediments were deposited after the Windsor seas retreated. These beds of Pennsylvanian age contain the commercial coal measures of Nova Scotia. In Triassic time, outpourings of basalt, particularly preserved adjacent to and below the Bay of Fundy, terminated rock-forming processes in the Appalachians. Subsequent erosion has yielded the present, fairly subdued topography of this former mountain chain.

The Cordilleran Region.—The Cordillera of Western Canada consists of three parallel northwest-trending geological and topographical systems. The Eastern System of western Alberta, eastern British Columbia, eastern Yukon, and western Northwest Territories includes the Rocky, Richardson, Franklin and Mackenzie Mountains and foothills, and several intervening plateaux. Comprising the Western System are the Coast Mountains along the west mainland of British Columbia, the St. Elias Mountains in southwest Yukon, the Queen Charlotte Islands and Vancouver Island. The Interior System lies between the Eastern and Western Systems. It contains the plateaux, plains and subdued mountain ranges of the interior of British Columbia and Yukon Territory.