



Southern and Bear embrace the orogenic belts produced during the Proterozoic orogenies, 900 to 1,800 million years ago. The remaining three, the Superior, Slave and Nutak provinces, were deformed during the Archean Eon, and include the oldest continental crust known in Canada, 2,500 to 3,000 million years old. The Precambrian orogenic belts have many features in common with those of Phanerozoic age but are so deeply eroded that the mountainous parts have been reduced to plains or lowlands and in many places the basement crystalline rocks upon which the sediments and volcanics initially accumulated are now exposed.

The land and freshwater area of Canada is 9 922 330 square kilometres, but Canada also includes within the confines of this area some 2 222 210 km<sup>2</sup> of marine waters. The rocks beneath have geological features akin to the adjacent regions on shore. In addition, the submarine area of the bordering continental shelves is about 1 354 564 km<sup>2</sup> and of the continental slopes, 1 458 163 km<sup>2</sup>. Altogether, this embraces 14 312 274 km<sup>2</sup>, about 3% of the surface of the globe.

For an account of Canada's geology see the *Canada Year Book 1973* pp 8-14.

### 1.3 Climate

Climate depends primarily on radiative exchanges between the sun, the atmosphere and the surface of the earth. In addition, regional climates of Canada are controlled by the geography of North America and by the general movement of air from west to east. The Pacific Coast is cool and fairly dry in summer but mild, cloudy and wet in winter. Interior British Columbia has climates varying more with altitude than latitude: wet windward mountain slopes with heavy snows in winter, dry rainshadow valleys, hot in summer,