

Geoscape Victoria

The landscape and geological architecture, or geoscape, of southern Vancouver Island are the products of a wide variety of natural processes acting over some 370 million years. Several episodes of volcanism, erosion, sediment accumulation, and crustal movement have provided one of the world's best laboratories for the study of the effects of plate tectonics. By virtue of its position beside an actively moving ocean floor throughout the past 170 million years, Vancouver Island is an assembly of different pieces of the Earth's crust, all of which originated at different times, at different places, and under different circumstances. The fact that earthquakes are common occurrences in this region is dramatic evidence that crustal movement is continuing today.



Kwakwaka'wakw earthquake mask
courtesy of University of British Columbia
Museum of Anthropology, Vancouver, Canada.

Added to these tectonic processes are the effects of glaciation. As recently as 15 000 years ago, 1500 m of ice covered most of the island. Fiords such as Saanich and Alberni inlets, as well as the straits of Georgia and Juan de Fuca, owe their existence, in part, to the sculpting power of ice.

The cumulative effect of these island-forming processes includes the beautiful scenery that surrounds us, as well as the formation of important mineral deposits and groundwater reservoirs. It is these and other natural legacies of the geological history of southern Vancouver Island that need our constant stewardship and care. Moreover, the probability that significantly large earthquakes may occur requires thoughtful attention not only to safe building design and construction, but also to other matters affecting public safety.

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