

period. The sea-cut cliffs accompanying the raised beaches will be discussed later. The cliff which runs generally parallel to the Grand Trunk railway, from about Point Claire into and beyond the City of Montreal, where it has been somewhat modified by man's activities, is regarded as a cliff carved out by the St. Lawrence.

Mount Royal itself owes its protuberance above its surroundings to the fact that the rocks (essexite and nepheline-syenite), composing it are harder and more resistant than the limestone intruded by them. When the "Mountain" is viewed from the southeast it shows a steep slope toward the northeast and a more gentle one toward the southwest (See Frontispiece). This is the topographic form known as "crag-and-tail." It is held to be produced by glacial action, but as the ice came from the northeast, i.e., up the St. Lawrence valley, the steeper slope is on the side pointing toward the direction from which the ice came. This is just the opposite of the usual result, where the steeper slope is on the lee side (*roches moutonnées*). The explanation of the formation of this crag-and-tail type of topography has not been satisfactorily given. It is a form shown by other members of the Monteregian hills. LeRoy has suggested, as a possible explanation, that it may be due to an original form of the igneous intrusions as sheets dipping slightly to the southwest, and that the form is that of the outcrop of such a sheet superficially modified by glacial erosion.¹ Such information as one possess concerning the form of the intrusions indicates that this explanation is not valid. Rounded and partially smoothed surfaces characteristic of glacial action are to be found at many points on Mount Royal. Striations, however, are not often to be found. On the softer limestone rocks, however, striations and often deep groovings, are abundant.

¹Geology of St. Bruno mountain, G.S.C. Memoir 7, p. 9.