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Our Geological Museum.

IN a school in which success attends the efforts to impart a knowledge of geological processes and phenomena a well equipped museum is almost indispensable. It may not be known that Queen's is in this respect especially well provided, but the better part of her museum is not to be found within the college walls. It lies in the Barriefield commons. Few except those who have made a special study of the place suspect the great wealth of geological phenomena that are there displayed. Nature has equipped our museum, and that with a lavish hand. Scorning the small and comparatively insignificant cabinet specimens, she provides us with broad stretches of stratified rocks, hills of gneiss and bosses of granite. Phenomena are indeed exhibited on a grand scale and in rich variety.

As we cross the bridge over the Cataragui we see along the shore of the River to our left a few strata of the Bird's Eye and Black River formation, one of the earliest to be deposited in Paleozoic times and also one of the earliest to show any trace of organic existence. Although the remains found are those of plants and animals of a low order, yet they rank so high in the scale of life that we conclude that the first lowest organism must have been called into existence ages before these sedimentaries were deposited in the bed of the ocean which covered this section of the earth's surface at that time. Above Barriefield village is an old quarry where a vertical section of thirty or forty feet of marls, limestones and shales is exposed. This and other quarries and shore exposures afford the student an opportunity of studying the varied characters of stratified rocks and the conditions of their deposition, and of correlating the different strata and thus of constructing a geological section of the Bird's Eye and Black River formation. The bed of the ocean on which these sedimentaries were deposited was far from being level; it is almost impossible to find a horizontal layer, the dip in some places being as much as 15° . On One Tree Hill around an exposure of gneiss the limestone dips in all directions, producing what is known as a quaquaversal. Here too the student learns how joint planes assist in the weathering of rocks by exposing increased surface to the solvent action of carbonated waters. These planes are nearly at right angles to one another and vertical, and were produced by the contraction of the rock in drying. Barriefield has many excellent examples of the phenomena of weathering.