The granitoid units of Cape Breton Island, Nova Scotia: a catalogue of background information to aid assessment of their potential as building and/or dimension stones

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Canada has great potential for all types of stone resources (e.g., granite, sandstone, marble, and slate). However, granite has exclusively become Canada’s most internationally sought after building and dimension stone because of its beauty and durability. The quarrying and fabrication of Nova Scotian granite dates back to the mid-1700s. Since then, over 75 quarries have periodically produced stone, mostly granite, over the past 150 years.

Granitoid rocks of many varieties and ages are abundant in Cape Breton Island. This abundance, as well as the strategic location of Cape Breton Island for shipping, should encourage future production. In order to provide background information for the assessment of the potential of granitoid rocks in Cape Breton Island for use as building and/or dimension stone, a compilation has been undertaken, using as its base the extensive collection at Acadia University of granitoid samples representing essentially all granitoid units in Cape Breton Island. The purpose of the study is to document useful information about the granitoid units across Cape Breton Island in a readily accessible format. Such an inventory will perhaps assist future users in investigating the suitability of these rocks for building stone/dimension stone purposes.

Background information on the past and present use of Cape Breton Island granite reveals that certain characteristics make them potentially useful for building/dimension stone purposes. Attractive colour, grain texture and pattern, and surface finish of the stone are normal requirements. Before quarrying, granite is also commonly tested for specific weight, absorption, compressive strength, transverse strength, and resistance to abrasion. These characteristics help determine the durability of the granite and its capacity to resist weathering agents and human impact.

This study is being done as a Special Project course at Acadia University. It will include a short written report on the usage of Cape Breton granite as building and/or decorative stone and an investigation through a literature/website survey to obtain the characteristics of granite that make them potentially useful for this purpose. Secondly, an appropriate catalogue format is being designed to effectively organize and present the relevant information, such as location, accessibility, size, and appearance of the rock. The final product will be a Cape Breton granite catalogue in both paper and electronic versions. The inventory will include a colour digital image of a representative sample from each unit.