

DIMENSION STONE AND MINERAL FILLER ASSESSMENT

by

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DIMENSION STONE

This was the first year of a two-year program to evaluate the dimension stone resources of Insular Newfoundland. During the past season, an attempt was made to visit, examine and sample all potential sources of stone of the Island. This objective was reached after travelling in excess of 30,000 km.

MINERAL FILLERS

In addition to building and dimension stone, potential sources of mineral fillers were also visited and sampled. These included many of the same materials as the dimension stones, but usually with less rigid standards as to physical properties of the stone.

DEFINITION OF TERMS

Granite: When used in the general sense, granite refers to any igneous or metamorphic rock (except ones of obvious sedimentary origin such as marble or quartzite). It includes granite, syenite, anorthosite, diorite, gabbro and various gneisses derived from these rocks.

Marble: Like the term granite, marble is used to refer to a variety of rocks that may not be marble in the strictest sense. It may be used to refer to marble, limestone, dolomite, and other sedimentary and metamorphic carbonate rocks.

RESULTS

(a) Dimension Stone

Granite (white, pink and red): All of the previously quarried granites in the province have potential for future development. They all possess reserves

that may be removed in large (8 m³) blocks, and that appear suitable for dimension stone use.

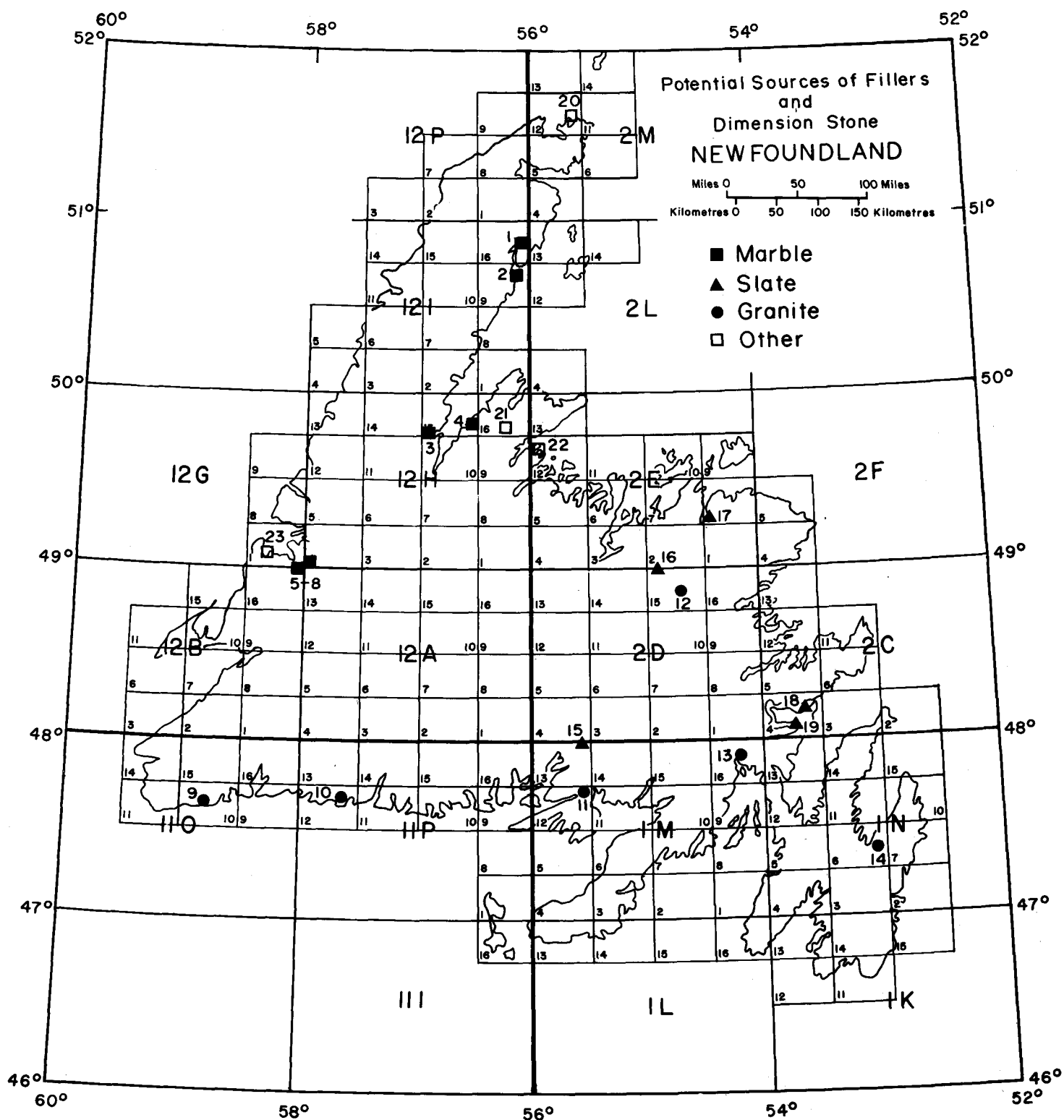
In addition, granites found at Swift Current, Gambo-Middle Brook, Wesleyville, Gander, Harbour Breton and Burgeo appear promising. Preliminary examination of these locations suggests that stone would be available in large blocks; initial polishing tests indicate that the stone would polish well.

Several other locations contained stone of good quality, but it is doubtful whether large blocks could be quarried.

Granite (black): There are few sources of dark stone suitable for dimension stone uses. The majority of otherwise suitable stones are too severely jointed and/or fractured to be used. In other cases, the stones are highly serpentinized and could not be easily sawn and polished.

At one possible source along the Baie d'Espoir Highway, dark stone occurs in large blocks; this stone is quite attractive when polished. However, it weathers to an unpleasant rusty brown color in a short time (less than 5 years). This process may be accelerated on broken surfaces, and may not be serious in polished pieces, or in stone used indoors. More testing needs to be done to test this stone.

Marble: Although there are many sources of marble on the island, many of which are very attractive when polished, few could be obtained in large enough pieces for dimension stone use. The marbles of the Corner Brook and Sop's Arm areas could be used for such purposes as trophy bases, small ornamental objects, and any other project not requiring large pieces.



If care was exercised in mining, it is possible that larger blocks could be obtained from some of the locations after removal of the surface material.

Slate: Slate has been quarried on the island in the past, and could probably be quarried again at the former sites. These are at Random Island and Smith Sound in the Clarendville area. In addition, slate suitable for facings and flooring could be obtained from the St. Alban's and Gander Bay areas. In other areas, the slate observed was either not of good enough quality, or was in beds of insufficient thickness to be

commercially attractive. These other occurrences, however, could provide slate for mineral fillers.

(b) Mineral Fillers

Besides sampling and noting the occurrence, no work has been done to evaluate the marbles and slates of the Island for their potential as ground fillers. As already noted, many of the slate occurrences visited as well as many of the marbles are not suitable for use as dimension stone but could be used as fillers. The samples collected from these sites will be ground and subjected to the appropriate physical and chemical tests during the winter.