
**The Barth Island layered structure, Labrador:
a reappraisal**

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The Barth Island Layered Structure, a part of the 1.3 Ga Nain Plutonic Suite (NPS) is an oval series of concentric mafic, intermediate, and felsic rocks. The Layered Structure, located near Nain, Labrador, has previously been considered to be the result of differentiation of a single pulse of basic magma. Recent mapping and petrographic analysis show that this hypothesis is incorrect. The Barth Island Layered Structure is the result of successive pulses of different magmas that are not the product of differentiation of a common parent. U-Pb data for two units of the intrusion require the pulses to have occurred in a relatively short period of time. Also, comparison of U-Pb data from zircon and baddeleyite suggest assimilation, by the mafic member of Barth Island, of semicontemporaneous rocks. Geochemical data for the mafic member are presented. Possible emplacement mechanisms and chamber evolution models are suggested.
