

Geometry for Nunavut: A postmodern approach to the cognition of Archimedes

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ABSTRACT. Nunavut is Canada's newest and most northern territory. Nunavut's Inuit people, only three generations removed from a *pre-modern* existence of subsistence hunting, are adapting to *modern* lives of air travel, telecommunication, exploration for diamonds, and tourism. At the same time, the Nunavut government is faced with decisions about what its schools should accomplish, including what its mathematics courses should teach. A mathematics curriculum built from tradition could mean two very different things to the Inuit people. By adopting mathematics curricula in the Canadian tradition, the people of Nunavut could build on the experiences of its southern compatriots—but those experiences are grounded in a school mathematics designed to progressively exclude students who are not academically inclined. Alternatively, an ethnomathematics approach would begin with the mathematics inherent in traditional and current Inuit culture—but there is no guarantee that such an approach would prepare Nunavut's citizens to succeed in a free-enterprise world and govern their own affairs.

What could the history of mathematics (and science) offer to such considerations? A *postmodern* approach to curriculum development could build with Inuit traditions of social inclusion and communal celebration of success, while relying on the traditions of mathematics (the history of mathematics) to provide starting points for content and instruction. This presentation will provide an example of such an approach, linking the thinking of Archimedes about triangles and centres of gravity with the traditions of carving soapstone and Nunavut's economic realities of diamond cutting and land management.

