

Correlation of the late Precambrian Rocks of the Northern Appalachian Eastern Margin: How Is "Avalon" Defined?

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The term "Avalon," as defined by the Late Precambrian–Early Paleozoic rocks of the Avalon Peninsula, Newfoundland describes a non–North American basement of the eastern margin of the Northern Appalachian orogen based on age and stratigraphy. Recent investigations have shown that a number of fault–bounded blocks in the eastern margin have sequences of late Precambrian–Early Paleozoic rocks with quite different thermo–tectonic histories.

Data are presented to show that the Boston Platform and Avalon Peninsula rocks are distinctive, and are the only true representatives of "Avalonia." Inboard from these blocks, and bounded on the north and

west by the Lake Char–Campbell River–Nonesuch River–Norumbega fault system, the remaining eastern margin shows a more highly correlated and coherent tectonic and plutonic history. Although these inboard blocks have some similarities to the Avalon Peninsula, differences in stratigraphy, ages of Precambrian events and metamorphic and plutonic episodes are evidence for differences in geologic evolution.

We suggest the term "Avalon" be restricted to the Avalon Peninsula and Boston Platform sequences which define an outboard terrane, and that a new term be introduced to describe the other similar inboard blocks of the eastern margin (i.e.: Hope Valley – Cape Breton terrane).