

Misinterpreting by localism: transposing European geology and tectonics onto Antillean islands

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Le Grand (1988, pp. 80-81, 97) defined 'localism' "when geologists are most influenced by data found close to them in time and space and within their own disciplinary specialties". Jamaica has been prone to localist interpretations made by some of its most notable geologists.

Henry Thomas De la Beche (1796-1855)

De la Beche (1827) mapped eastern Jamaica in 1823-1824, and made lithostratigraphic comparisons between Jamaica and Europe that were the first attempt at intercontinental correlation (Donovan, 1996). For example, he correlated a sandstone-shale-coal succession in the Jamaica (the Paleogene Richmond Formation) with the Upper Carboniferous Coal Measures of the British Isles solely on the basis of lithological similarity (Draper, 1996).

Charles Alfred Matley (1866-1947)

Matley was an amateur geologist remembered for his mapping in North Wales. Matley was appointed geologist to the second geological survey of Jamaica in 1921. Matley's (1929) Basal Complex hypothesis envisaged a geological structure analogous to that of the island of Anglesey, where the deformed Mona Complex underlies the Lower Palaeozoic succession. Matley saw analogous structural relationships in the Caribbean and in North Wales, providing a 'factual' basis for theories that the Antillean islands were the peaks of a foundered continent.

Charles Taylor Trechmann (1885-1964)

Trechmann was a wealthy amateur geologist with a strong field interest in the Caribbean. He was the principal opponent of the Basal Complex hypothesis, not recognising evidence for old basement in Jamaica. His 'answer' was the Theory of Mountain Uplift (e.g., Trechmann, 1955), based on gravitational tectonics and applied to other islands, notably New Zealand. But Trechmann's theory was comparable to, for example, the fixist theory of Hayford (1911). As such, the Theory of Mountain Uplift was a reversion to tectonic ideas that were otherwise discarded.

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