

Geological Sights! Isle of Man

2007

Harrow and Hillingdon
Geological Society



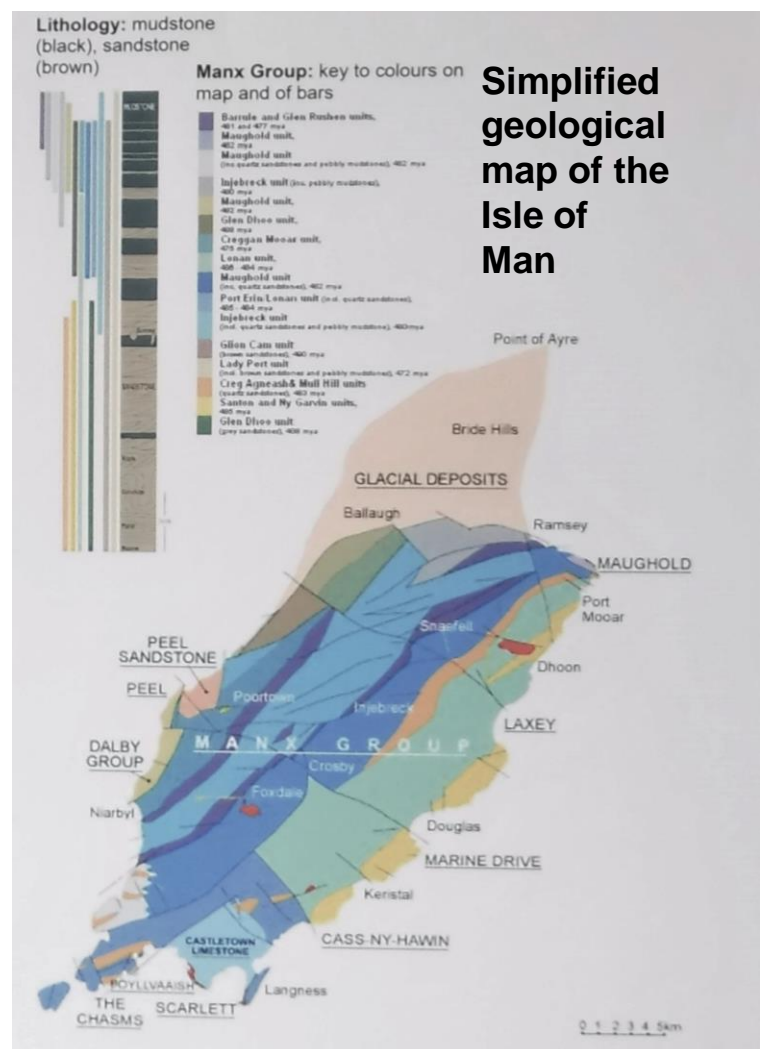
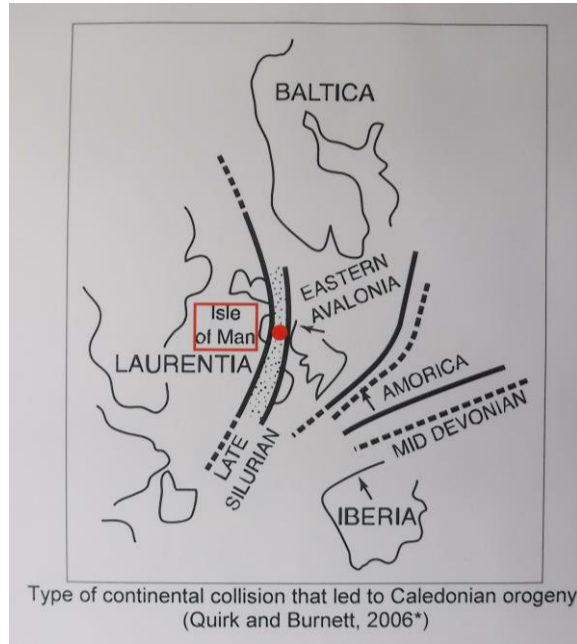
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The Isle of Man is mainly composed of two groups of rocks, the Ordovician Manx group of (now metamorphosed) sediments and the Silurian Dalby group. Both of these were deformed and folded as part of the Caledonian Orogeny, when the Iapetus Ocean closed towards the end of the Silurian (423 million years ago).

In the south of the island there is a series of fossiliferous Carboniferous 'Castleton limestones' and the hard Palaeozoic rocks in the north are obscured by Pleistocene glacial deposits.





Boudinage and laminations of mudstone at Niarbyl.



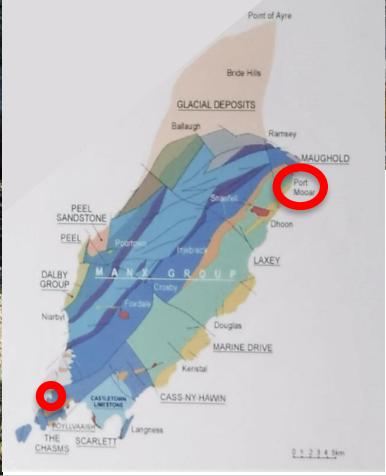
Highly contorted interbedded sandstone and mudstone at Niarbyl.



These oldest rocks on the island were deposited in the Ordovician (490-470 Mya) as mudstones and sandstones in the Iapetus Ocean (southern hemisphere). The sediments were derived from the continents of Gondwana and Avalonia. They were deformed when the continents collided, closing the ocean at the end of the Silurian (423 Mya).

Manx Group

Interbedded sandstone and mudstone at Port Erin.

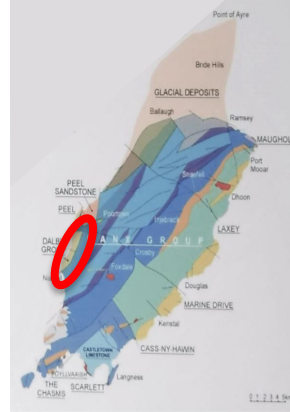


Elongated sandstone/ mudstone layers at Port Moar.

Manx Group



Traie Dullish Quarry, Silurian (Wenlock) turbidite mudstones, siltstones and sandstones.



Slump thrust with quartz infill at Traie Dullish.

Dalby Group

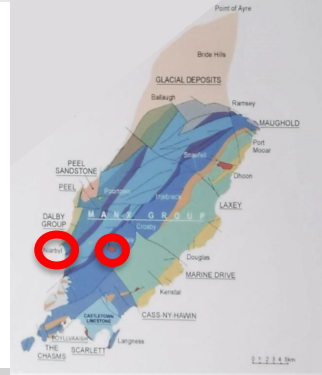


Standing on the suture of the Iapetus Ocean at Nairbyl. Dalby Group in background.



Foxdale granite in Foxdale Quarry.

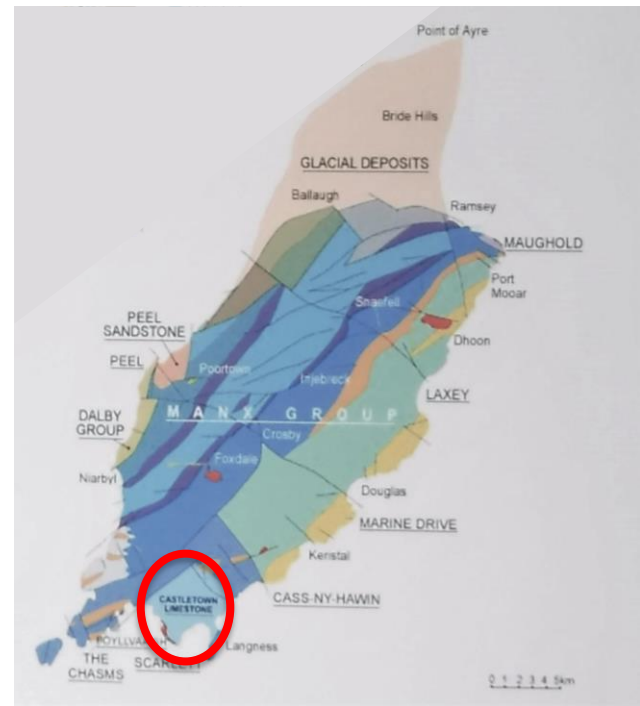
The Dalby Group were folded and thrust up as the colliding continents closed the Iapetus Ocean, and were subsequently intruded by rising bodies of granite during the Caledonian Orogeny 400 Mya.



Dalby Group



Scarlett Point, partially dolomitised and folded beds of the Castletown limestone group.



In the early Carboniferous, the Isle of Man and the rest of Britain were towards the centre of the supercontinent Pangaea, close to the equator. As Pangaea became worn down then rifted, it was slowly flooded by lakes and seas, resulting in a build up of thick limestones. Associated with the rifting were the Scarlett volcanic vents and fissures.

Carboniferous



Langness Arch – unconformity between Carboniferous Langness Conglomerate Formation and the Lonan Formation of the Manx Group.



Fossil coral fragments from the Hodderense Limestone Formation at Callow Point.



Carboniferous

Poyllvaish Bay looking across the Carboniferous Limestones to the Scarlett Volcanic Formation.



The Stack – remnants of a basalt plug of the Scarlett Volcanic Formation.

Tertiary (65 Mya) dolerite dyke intruding the Carboniferous Close-ny-Chollagh formation limestones.



Carboniferous