

Late Neoproterozoic Precambrian development of Gondwana

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Gondwana has been defined by Du Toit (1937) and since then has been divided into East and West Gondwana. These divisions refer to the two parts which comprised a portion of Pangaea in Triassic times, along a line separating Africa from South America and North America. Hoffman (1991) considered it as part of Middle-Late Proterozoic Rodinia. The breakup of Rodinia in this hypothesis occurred in Late Proterozoic times. In the proposed assembly of Gondwana, the Laurentian craton of North America and Greenland, Baltica, Amazonia, West Africa, Congo and Sao Francisco, Kalahari and several others took place with the Laurentian craton being central to this assembly. The reason for abandoning the previously existing scheme of the Iapetus Ocean separating North and South America from Africa and Pangaea

was due to finding a strip of rocks with lithologic and partly tectonic characteristics similar to the Avalon Terrane. Also, it was desirable to place parts of Antarctica and Australia next to the western Laurentian craton. Thus, the general similarity of the Avalon of North America to the Late Proterozoic of West Africa was discounted prematurely across the trend in favor of correlation with similar rocks of Central South America. We propose that as yet, it has not been demonstrated, and that the trace of the Avalon Terrane can be followed from North America through parts of South America where it separates the Amazon craton from the Sao Francisco and continues to the West of La Plata. As a result, a different Iapetus Ocean can be recreated.