
Preliminary Tectono-Stratigraphic Terrane Map of Circum-Pacific Region

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The geologic evolution of the proto-Pacific Ocean (Panthalassa) underwent a major change during Middle Triassic time that involved initiation of rifting and dispersal of allochthonous terranes from equatorial paleolatitudes.

Fragments of these rifted terranes are now found plastered onto cratonal margins (which locally may contain Paleozoic accreted terranes) in most parts of the Pacific basin. A preliminary map at a scale of 1:20,000,000 has now been completed for most of this margin (exclusive of parts of South America) that shows the location and character of major terranes, as well as position of suture zones and ophiolitic belts.

Combined paleomagnetic, paleobiogeographic, and lithologic data substantiate that some terranes have been displaced thousands of kilometers during the Mesozoic, but adequate data of these kinds are still lacking for many terranes. Such data are required in order to control paleogeographic reconstructions through time, and then to elucidate the tectonic evolution of the entire Pacific basin.
