

## Tectonic and Geologic Evolution of Thailand

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*Thailand consists of Shan-Thai and Indochina Microcontinents.*

*In the early stage of their evolution (Archeotectonics), Shan-Thai and Indochina were cratonic fragments of Gondwana Australia in the Southern Hemisphere during the Precambrian to Lower Paleozoic.*

*During Middle Paleozoic to Lower Triassic (Paleotectonics), Shan-Thai and Indochina were rifted and drifting in the Paleotethys. Paleomagnetic and Paleontologic data suggest that Shan-Thai move from a low latitude Southern Hemisphere to a low latitude Northern Hemisphere position, while rotating nearly 180 degrees in the horizontal plane, in the time between early Carboniferous and early Triassic. During the Middle Triassic Shan-Thai sutured nearly simultaneously to Indochina and to South China, the continen-continent collision being a part of the Indosinian Orogeny and Indochina tended to underthrust Shan-Thai.*

*After the collision (Mesotectonics), mountains arose along the suture, particularly along the overthrusting Shan-Thai margin, and at the same time granites were intruded to high levels in the sediments, and extensive rhyolites were extruded on the land surface. Erosion of the mountains produced molasse deposits (mostly alluvial plain red-beds) which occur on both sides of the suture, but are most fully developed in the Khorat Basin that formed on the underthrusting west side of the Indochina continent.*

*Rifting of continental Southeast Asia and the opening of the Gulf of Thailand by tensional regime during late Cretaceous to Tertiary mark the Neotectonics stage of Thailand with subsequent rapid uplift of the present mountains during the Quaternary.*

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