

The Median Tectonic Line and Kanto Tectonic Line of the Kanto region

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Middle Cretaceous metamorphic rocks of the Higo-Abukuma Belt were formed along the eastern part of the Asian continent. Subsequently, contraction tectonics took place repeatedly in the southwest Honshu during late Cretaceous and Paleogene times. The Higo-Abukuma Belt in the southwest Honshu was tectonically transported to somewhere, and the Median Tectonic Line was formed after the contraction tectonics.

The Sanbagawa Belt of the Kanto Mountains rotated clockwise in the middle Miocene. However, there is no evidence for the clockwise rotation of the Ryoke and Mino-Tanba belts which were exposed near the Sanbagawa Belt of the Kanto Mountains. These belts appear to be separated from the Sanbagawa Belt during the opening of the Japan Sea. In this context, the Ryoke metamorphic and granitic rocks of the Hiki Hills and the Iwatsuki boring cores are relics of the Ryoke Nappe on the Sanbagawa Belt.

Southwest Japan in the Kanto district was in contact with Northeast Japan after its clockwise rotation. The boundary fault between Southwest Japan and Northeast Japan appears to be located near the Fukaya fault, i.e. the Kanto Tectonic Line, where tectonic activity was high judging from the folding of middle Miocene sediments exposed in the northern part of the Kanto Mountains and the mylonitization of the Yoshimi metamorphic rocks. The Tonegawa Tectonic Line is often regarded as the boundary between Southwest Japan and Northeast Japan. However, the recent seismic reflection survey along the Kiryu-Yorii seismic line revealed the non-existence of the Tonegawa Tectonic Line.

中央構造線 (MTL) と
棚倉構造線 (TTL) の関係

