

New ideas on the tectonics in and around the Boso peninsula, south Kanto, Japan

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The recent accumulation of geological and geophysical data produces the following new ideas on the tectonics in and around the Boso peninsula.

1. The Boso peninsula is divided into the two: the northern forearc and the southern accretionary provinces which are juxtaposed at the Mineoka belt. The southern half is characterized by no lower crust, while the northern one has the usual one. The difference between the two may reflect on that of crustal movement.

2. The main part of the Mineoka belt composed of the Paleogene Mineoka group and ultramafic rocks dips southward at about 60 degrees. This suggests that the main part was vertically intruded into the Hota group in early Miocene, and has been rotated to the present attitude associated with the growth of the accretionary complexes.

3. The Kazusa - Shimousa forearc basin was open to the southeast in its initial stage in about 3 Ma. However it was closed off the eastern coast of the Boso peninsula by the growth of the N-trending uplift zone in about 2 Ma, and had a depocenter in the central part of the peninsula. Then the depocenter shifted northwestward to the western coast in about 0.5 Ma.

4. The Chikura and the Toyofusa groups, both of which are the trench slope basin-fill sediments, are distributed widely in the southernmost of the peninsula. They continue to the shallow sea areas which can be explored precisely by the shallow marine seismic reflection. They are folded not in E- direction, but also gently in N-direction off the eastern coast.

5. The two candidates of the source fault of the Genroku-type earthquake are picked up off the southernmost part of the peninsula; the northern flank of the knoll, a seamount?, on the Philippine Sea plate, and the thrusts branching from the upper surface the Philippine Sea plate.

6. The significance of the N-trending uplift zones in both provinces should be considered in the research on the tectonics, although the existence of the zones has been scarcely known.