

Tomo-topo-geologic aspect of an erosive margin: NE Japan case

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Across-arc tomographic image clearly illustrated the development of a hydrous column through the wedge mantle in the fore-arc domain of NE Japan. On the surface, this domain is topographically represented by an elevated region called the Kitakami Mountains. The origin of the uplift is likely of non-volcanic origin, because The Kitakami Mtn. is clearly separated by a prominent lowland from the west-neighboring Ou Mountains with the volcanic front. In this presentation, the unique geological aspect of modern NE Japan with double-arc system is discussed particularly from the viewpoints of mantle tomography and seismic profiles. The non-volcanic buoyant uplift of the fore-arc domain and the combination with tectonic erosion along active trench likely have shaped the unique double-arc system.

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