Phanerozoic Pacific-rim orogenic belt (Nipponides) and CAOB (Altaides)

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The Phanerozoic orogenic belt along the Pacific margin of East Asia was called Nipponides. Ever since the Cambrian, subduction-related processes have formed rock assembaleges of ancient arc-trench system to build an elongated N-S trending Pacific-type orogenic belt in East Asia, all the way from South China margin to Primorye Far East Russia. In contrast, the nucleus of the present Eurasian continent was formed mostly during the Paleozoic by the successive assembly of multiple cratonic blocks, such as Siberia, Kazakhustan, Tarim, North China, and South China. The resultant belt was called Altaides, and currently renamed as the Central Asian orogenic belt (CAOB) with multiple elements of older Pacific type orogenies. According to their assebling processes, the CAOB in general has E-W trend. These two independent major orogenic belts are currently connected in Far East Asia in the form of T-junction. The nature of this junction and possible tectonics will be discussed.

Keywords: orogenic belt, Pacific-type orogeny, Central Asian orogenic belt, arc-trench system