

The Polychrone Magmatic Formations of the Continent-to-Ocean Transition Zone in the Northwestern Sector of the Peri-Pacific Rim (the Koryak Highland).

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The Koryak geosystem is an area of transition of continent -to ocean in the northwestern sector of Peri-Pacific. It is characterized by the active occurrences of magmatic assemblages in the interval from Archean (?) to Pleistocene. In Archean (?) association of «gray gneisses», series of basalts and anatexitic thonalite-granodiorite assemblages were found. In Riphean and Early Cambrian series of basalts, differentiated in various degree, were also established. Paleozoic (O-T₃), Mesozoic (J₃-K₁; K₂ sn) ophiolitic associations with initially differentiated series of high sodium basalts formed in Phanerozoic in intracratonal polycyclic troughs. Andesitoid, boninitoid and subalkaline, and trachybasaltic assemblages were established in island arc adjacent and synchronous to troughs. Basaltic volcanism was fixed also at the early orogene stage (Senonian) of the Koryak geosystem evolution. However, in Eocene-Early Miocene polycyclic occurrences of Phanerozoic ophiolite stages and epochs of basaltic magmatism are altered by the active occurrence of essentially granitoid volcanism with formation of volcanogenic belts. The composition of antidrome hypersthene series is contrast, felsic rocks prevail. The main peculiarity of the transitional zone of continent-to ocean in northwestern Peri-Pacific is a spatial coincidence of magmatic assemblages of different ages that characterizes the chronological evolution of deep zones of the Earth's crust and mantle, and also the absence of andesite assemblages. Continuous- discrete spatially coincided occurrence of magmatic assemblages in the interval of Archean up to Pleistocene testifies to the discrete-polychrone realization of the endogene energy in northwestern sector by the transits of Peri-Pacific rim.