The adjacent territory of China and Russia in East Asia incorporates the areas with high gold content. With regard to the geology it belongs to the structure interaction zone of two orogenic megabelts (Central-Asian and Pacific), bounded in the north and south by the North-Asian (Siberian) and Sino-Korean (North-China) cratons, correspondingly. The largest gold-bearing ore-placer districts of East Asia (whose potential exceeds 1000 tons Au: Aldansky and Baleisky in Russia and Zhao-Ye in China) are located in the area of the mentioned cratons and Kerulen-Argunsky cratonized superterrane.

The Aldan ore-placer district is in the northern part of the Central-Aldansky superterrane near the joint of two gradient zones of the gravity field: sublatitudinal (Baikal-El’kon-Ulkanskaya) and submeridional (Seligdar-Verkhnetimptonskaya). The Earth’s crust thickness of the district is 36-38 km. In this area in the Late Jurassic-Early Cretaceous time (175–115 m.y.) a large magmatic areal (“magmatogene”) about 120 km in diameter originated of volcanic, subvolcanic, and intrusive bodies of the many-phase mafite-alkali-syenite complex, called also alkali-earth-alkaline, alkali-basaltic.

A high-ohm funnel, whose roots are in the upper mantle, corresponds to the magmatogene. The results of the specialized geophysical investigations testify to the existence of the staged system of paleomagmatic centers at depths of 200, 100, 50, 30, 10, and less kilometers (Abramov, 1995). The age range of the formation of the Late Mesozoic magmatites is 165–155, 145–140, and 135–130 millions years. The youngest age (110–100 m.y.) show the dikes of the alkaline rocks (syenite-porphryy-grorudites, tinguaites) crossing the ore-bearing linear stockworks (Korchagin, 1996; Kazansky, Maksimov, 2000; Kazansky, 2004). The metallogenic specialization of the district is defined by gold, uranium, molybdenum, platinoids, and fluorite. Its area encloses large gold-ore nodes and fields (Kuranakhsky, Lebedinsky, El’konsky, Ryabinivoe) and deposits of different geological-genetic types: jasperoid, skarnoid, sulfide, porphryy, weathering crust, and others, originated in one (Late Mesozoic) metallogenic epoch. In the western part of the district, among mafite-ultramafite formations of the Inaglinsky ore-placer node, there the shows of the platinum group elements occur (Korchagin et al., 1996). PGE minerals are found also in ores of porphryy type associated with the alkali-alkaline intrusives of a potassium row (Kovalenker et al., 1996).

The Baleisky ore-placer district is in the northern part of Kerulen-Argunsky superterrane near the joint of the Mongol-Okhotskyay (east-north-eastern) and Borzya-Baleiskaya (submeridional) gradient zones of the gravity field. The earth’s crust thickness of the district is 36-38 km. In the Late Jurassic-Early Cretaceous time (175–115 m.y.) a large magmatic areal originated of the volcanic, subvolcanic, and intrusive massifs of intermediate (monzodiorite-granodiorite) composition of a higher alkalinity. Its diameter exceeds 50 km. According to geophysicists’ data it is distinctly observed in the gravity field as a large lopolith of the funnel-like shape. The roof sag of it is 4–5 km, and thickness is 8 km. Above the root part of the paleomagmatic system there took place the compensation subsidences filled with terrigenous (conglomerates, sandstones, fanglomerates) deposits. In the district the many-metal mineralization is widespread. Occurrences of Mo, Cu, Pb, Zn, W, Sb, Hg, and fluorite, dominated by Au, are known. Gold mineralization is localized on the area of four nodes (Aprelkovsky, 2004).
Baleisky, Kazakovsky, Munginsky) among the rocks of different stage floors. With regard to the age and matter the mineralization corresponds to the evolution rows of the Trans-Baikal endogenous deposits, distinguished by B.L. Rybalov (2000): gold-molybdenum (175–154 m.y.), rare-metal-polymetal-uranium (150–130 m.y.), and fluorite-gold-silver (125–102 m.y.).

Zhao-Ye gold-ore district is in the western part of Jiaodong Province. It is characterized by the presence of several gradient zones of the gravity field and the Earth’s crust thickness of 38 km (Chengwei, 1996). In the Province, widespread are the Late Mesozoic volcano-plutonic formations. The granitoid massifs, dikes of intermediate-basic composition, and mineralizing fluids are considered to be the derivations of one deep-seated magmatic chamber. Isotope determinations of the melt source and the age of the Late Mesozoic intrusions (Qiu et al., 2002; Zhang et al., 2003) show that they were formed in the sequence as follows: Guojialing granites - Luangjia granites (130–126 m.y.). According to other data the time of this triad formation is 136–112 m.y. (Chengwei, 1996). All of them, probably, belong to a single “magmatogene” about 150 km in diameter. Gold deposits of Zhao-Ye district are predominantly localized in the tectonic zones and dislocations of several orders among the mentioned granitoids and at their contacts with the Archean formations. Two structural-morphological types of the deposits are distinguished: vein type among Linglong granitoids and streaky-impregnated type in the contact zones of the tectonic mélange, separating young granitoids and the Jiaojia ancient metamorphic complexes.

Synthesis of data on the geological-geophysical position, structure of ore-placer nodes, age of magmatic formations, with which the precious-metal mineralization shows associate, and the materials of the seismotomographic investigations of Eastern Asia (Zhao et al., 2010) allowed the estimation of the deep-seated geodynamics influence on the origination and localization of the major gold-ore districts. It was demonstrated by the synchronous origination (following the one-type scheme) of the highly productive ore-magmatic systems in the Earth’s crust above the frontal and flange boundaries of the stagnant oceanic slab.

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