

Metallogeny of gold in Ukraine as related to the transcontinental structures of Africa and Europe.

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Earth crust of Ukraine contains a number of gold-bearing prospects and deposits which formed during a wide range of geological processes and events in age from Archean to Neogene. The by far most common mode of occurrence for gold mineralization is within epigenetic structures.

The three regions of economic gold are determined from the east to the west and differentiated in time: Donbass (Paleozoic), Ukrainian Shield (Archean and Proterozoic), Carpathian (Paleozoic and Neogene).

The Ukrainian Shield is included in the Eastern European link of the Southern African-Northern European Early Precambrian gold-bearing belt, which stretched out now along with meridian of 30 degree E from the south of Africa to the north of Fennoscandia. Geodynamic reconstructions, are known, make it possible to include in that belt also Early Precambrian gold-bearing complexes of India, Western Africa and Australia as well as Greenland.

The main areas of gold in the Ukrainian Shield are situated in the Archean cratonic blocks (greenstone complexes) and Paleo-proterozoic foldbelt (gneiss complexes). However, very often gold mineralization is related to regressive hydrothermalites formed during the Mesoproterozoic, Neoproterozoic and Phanerozoic tectonic cycles.

Reactivation of the Shield structures as well as rejuvenation and regeneration of gold ores are caused by development of the Mediterranean belt separating the former Euro-African continent.

Gold deposits in both of the Donbass and Carpathian regions inherit the areas of gold productivity of preceding metallogenic periods represented in the Ukrainian Shield.