

MAIN FEATURES OF PRECOLLISION AND COLLISION STRUCTURE OF THE CENTRAL ASIA

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Eurasia is composed of fragments of the Premesozoic continents separated by the paleoceans' closure zones and surrounded by collision structure belts previously considered to have formed as the result of tectono-magmatic activation. In the Late Proterozoic and Paleozoic the fragments of the Siberian and China paleocontinents located in the east of Eurasia were separated by oceanic water areas of Paleosia and Paleotethys. Within the zone of these water areas there were archipelagoes consisting of microcontinents - ancient median masses of Central Asia. In the Early Paleozoic the cratonic structures of the Altay-Sayan region and Tuva and Transbaikalia accreted to the Siberian paleocontinent. In the end of the Paleozoic a consolidation of the Central Asia microcontinents was completed to form the Central Asian paleocontinent limited by the Mongolian-Okhotsk (in the north) and Tethys-Tianshan (in the south) paleoceans which were then residual water areas of the oceanic systems of Paleosia and Paleotethys. In the end of the Paleozoic-Early Triassic the closure of the western margins of the Mongolian-Okhotsk and Tethys-Tianshan paleoceans started. This process extending in the direction to the east reached the eastern margin of Eurasia in the Late Triassic. In the Early Cretaceous those were developing in the areas of the northern coast of the modern Sea of Okhotsk. During the process of hummocking of margins of paleocontinents vast belts of collision intracontinental structures were formed (such as interfault uplifts, piedmont depressions, volcanic and intrusion zones). These structural systems were previously considered as regions of tectono-magmatic activation. These belts are of great economical importance (noble, ferrous, non-ferrous, rare metals, hard coal) and were formed as the result of deep and multilayered reworking of the Earth's crust caused by intercontinental plate tectonic processes.