

An active tectonics of the Tien Shan and Dzungaria

The paper is devoted to the study of active tectonics of the Tien Shan and Dzungaria - the area of interaction of the two largest lithospheric plates: the Indo-Australian and Eurasian. Interest in this area is due to the fact that its study can provide materials for answering some questions of the modern theory of tectonics of lithospheric plates, among which the problem of intra-continental mountain building. Indeed, the newest orogeny of these major structures develops at a distance of more than 2000 km from the direct interaction of these plates, which began about 55 million years ago. This distinguishes it from the situation that exists in the subduction zones and the situation in typical conflict zones, where one continent sinks under the other along the main thrust. Despite the detailed study of the Tien Shan and Dzungaria, many questions of its modern geodynamics remain unlighted or poorly illuminated. Among them: what is the distribution of current stresses within the orogenic belt? Are the main stresses within the marginal parts of the orogenus concentrated or evenly distributed within the belt? What is the slip rate of Late Quaternary tectonic displacements in the zones of active faults?

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