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区域伸展体制下盆—山构造耦合关系的探讨——以渤海湾盆地和太行山为例 [点此下载全文](#)

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摘要:

根据地质、地球物理和构造地貌等资料研究了渤海湾盆地和太行山之间的耦合关系。盆地和山脉是在晚白垩纪裂陷作用产生的。盆地阶段性下沉与山区间歇性抬升彼此相应, 相反相成。盆山之间的太行山山前断裂带是上地壳滑脱而盆降、山隆; 区内现今地壳上地幔结构等差异可能是盆—山构造发育过程中形成的, 总体为分层拆离、断层岩石圈结构构造剖面。盆地和山脉具统一的形成机制和同一动力条件, 盆地深部软流圈上隆和侧向分流导致岩石流变, 不仅托曳传力使上覆壳层拉张裂陷成盆, 而且往西推挤山区相同层圈的物质使之缩短增厚并隆升, 为盆地成。

关键词: [盆—山构造耦合](#) [夷平面](#) [渤海湾盆地](#) [太行山](#) [区域伸展体制](#) [形成机制](#)

A Preliminary Study of the Coupling Relationship between Basin and Mountain in Extensional Case Study of the Bohai Bay Basin and Taihang Mountain [Download Fulltext](#)

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Abstract:

The coupling relationship between the Bohai Bay basin and Taihang Mountain has been studied geophysical and structural landform data. The basin and the mountain were formed by Cenozoic rift China penplain, which was formed in the Late Cretaceous. The piedmont fault of Taihang Mountain structure in the upper crust, and the basin's subsidence and the mountain's upheaval occurred by extension. The basin's staggered subsidence and the mountain's discontinuous upheaval took place at the same time. The basin and mountain have the same formation mechanism and dynamical condition. The upheaval and lateral flow of the asthenosphere under the basin produced ductile deformation of the mantle lithosphere and the low-angle thrusting in the mountain, which not only caused the top layers to be extended and rifted to form basin, but also pushed the top layers in the mountain to the west, so that they were shortened, thickened and upheaved, giving way to the mountain was formed accompanying the basin's development.

Keywords: [the coupling between basin and mountain](#) [planation surface](#) [Bohai Bay basin](#) [Taihang Mountain](#)