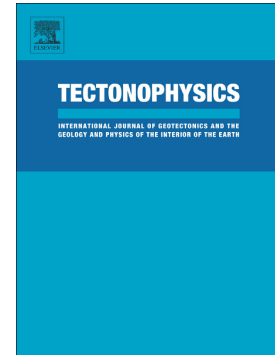


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Tectonic geomorphology of the Qilian Shan in the northeastern Tibetan
Plateau: insights into the plateau formation processes

Huiping Zhang^{1*}, Peizhen Zhang^{1,2}, Veronica Prush³, Dewen Zheng¹, Wenjun Zheng², Weitao Wang¹,
Caicai Liu¹, Zhikun Ren¹

¹*State Key Laboratory of Earthquake Dynamics, Institute of Geology, China Earthquake Administration, Beijing, China*

²*School of Earth Science and Geological Engineering, Sun Yat-Sen University, Guangzhou 510275, China*

³*Department of Earth and Planetary Sciences, University of California, Davis, California 95616, USA*

* Corresponding author.

Tel: +86 10 62009066

E-mail address: huiping@ies.ac.cn (H-p. Zhang)

Abstract:

We examined the regional scale topography of the Qilian Shan on the northeastern margin of the Tibetan plateau. Longitudinal profiles and geomorphometric indices, such as slope, local relief and channel steepness reveal that the Qilian Shan was developed as a local plateau with high-relief steep marginal ranges, and interior low-relief topography. Landscape mapping across this local plateau revealed spatially varied origins of the low-relief landscape in the Qilian Shan. North of the Haiyuan fault, universal massive intermontane aggradation was identified. However, the low-relief plateau to the south of the Haiyuan fault was dominated by relict erosional surfaces, even though accompany basin-filling still contributes. The geomorphologic contrasts led us to integrate both the

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