

# Accepted Manuscript

Structural variation within the Himalayan fold and thrust belt: A case study from the Kohat-Potwar Fold Thrust Belt of Pakistan

Humaad Ghani, Gerold Zeilinger, Edward R. Sobel, Ghasem Heidarzadeh



PII: S0191-8141(18)30081-6

DOI: [10.1016/j.jsg.2018.07.022](https://doi.org/10.1016/j.jsg.2018.07.022)

Reference: SG 3717

To appear in: *Journal of Structural Geology*

Received Date: 7 February 2018

Revised Date: 28 July 2018

Accepted Date: 28 July 2018

Please cite this article as: Ghani, H., Zeilinger, G., Sobel, E.R., Heidarzadeh, G., Structural variation within the Himalayan fold and thrust belt: A case study from the Kohat-Potwar Fold Thrust Belt of Pakistan, *Journal of Structural Geology* (2018), doi: 10.1016/j.jsg.2018.07.022.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 **Structural Variation within the Himalayan Fold and Thrust Belt: A Case Study from the**  
2 **Kohat-Potwar Fold Thrust Belt of Pakistan**

3 \*Humaad Ghani<sup>a,b</sup>, Gerold Zeilinger<sup>a</sup>, Edward R. Sobel<sup>a</sup>, Ghasem Heidarzadeh<sup>a</sup>

4 a Institute of Earth and Environmental Science, University of Potsdam, Karl Liebknecht Str 24-  
5 25, House 27, Golm Potsdam, 14476 Germany.

6 b Department of Earth and Environmental Science, Bahria University, Shangrilla road, sector E8,  
7 Islamabad, 44000 Pakistan.

8 [hammadtanoli@gmail.com](mailto:hammadtanoli@gmail.com), [zeilinger@geo.uni-potsdam.de](mailto:zeilinger@geo.uni-potsdam.de), [edsobel@gmail.com](mailto:edsobel@gmail.com),

9 [heidarzadeh.gh@gmail.com](mailto:heidarzadeh.gh@gmail.com)

10 \*Humaad Ghani

11 [hammadtanoli@gmail.com](mailto:hammadtanoli@gmail.com)

12 +49 3319776357

13 **Keywords:** Fold and Thrust belt; Decollement; Duplex; Rotational fault; Blind thrust

14

15 **Abstract**

16 The Kohat and Potwar fold thrust belts (KP-FTB) in Pakistan exhibit structural variations over

17 250 km along strike within the Himalayan fold and thrust system. Our 3D deformation model

18 shows that Kohat surface structures evolved above an active roof thrust in Eocene evaporites.

19 The ramp-forming duplexes in the Kohat were stacked and passively transported toward the

20 foreland above new ramps, resulting in up to 5 km of thickening between the two decollements.

21 Ramps from the Kohat extend into the Potwar as thrust tips of fault propagation folds. The

Download English Version:

<https://daneshyari.com/en/article/8946389>

Download Persian Version:

<https://daneshyari.com/article/8946389>

[Daneshyari.com](https://daneshyari.com)