

Interactive comment on “Growing topography due to contrasting rock types in a tectonically dead landscape” by Daniel Peifer et al.

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Review of ‘Growing topography due to contrasting rock types in a tectonically dead landscape’ by Peifer et al An interesting and worthy topic of interest to the journal. The paper is of interest to both field workers and modellers. It pulls together, geology, climate and hydrology to unravel a well-understood concept and reverse the thinking. It is particularly interesting in that it presents an alternative view of denudation and relief. What is particular pleasing is an examination of the geology and geomorphology of a stable or dead landscape system. The paper is clearly written with an extensive list of references. The Abstract summarises the paper well. Some suggestions. In regards to the area-slope analysis and profile analysis, some extra detail and analysis may be extracted from Cohen et al (JGR, 2008 doi:10.1029/2007JF000820). It is not

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clear what you mean by (line 376) ‘Given the long period since the cessation of crustal thickening, we conjecture that the landscape has not achieved equilibrium and that equilibrium is not a natural attractor in ancient landscapes. Our results indicate that the fluvial erosion efficiency differs by three orders of magnitude in the study area, varying as a function of rock type.’ and implications throughout the text. Is this not captured by the term declining equilibrium? The case for declining equilibrium has been argued by many at other sites globally. Minor issue: ‘We’ and ‘our’ in the Conclusion is repetitive.

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