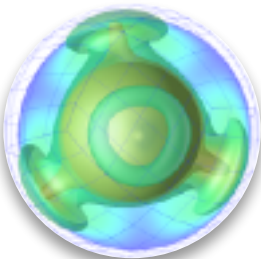


Salles et al. (2016, 2017)

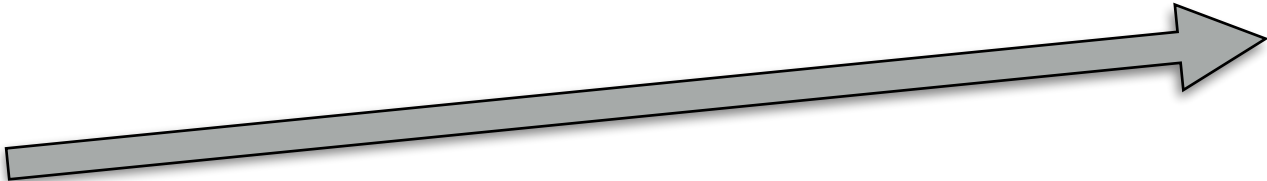
- hillslope: simple creep law
- rivers: transport/detachment limited
- flexural isostasy
- orographic rain

**Our Experimental Virtual Earth with SPN**



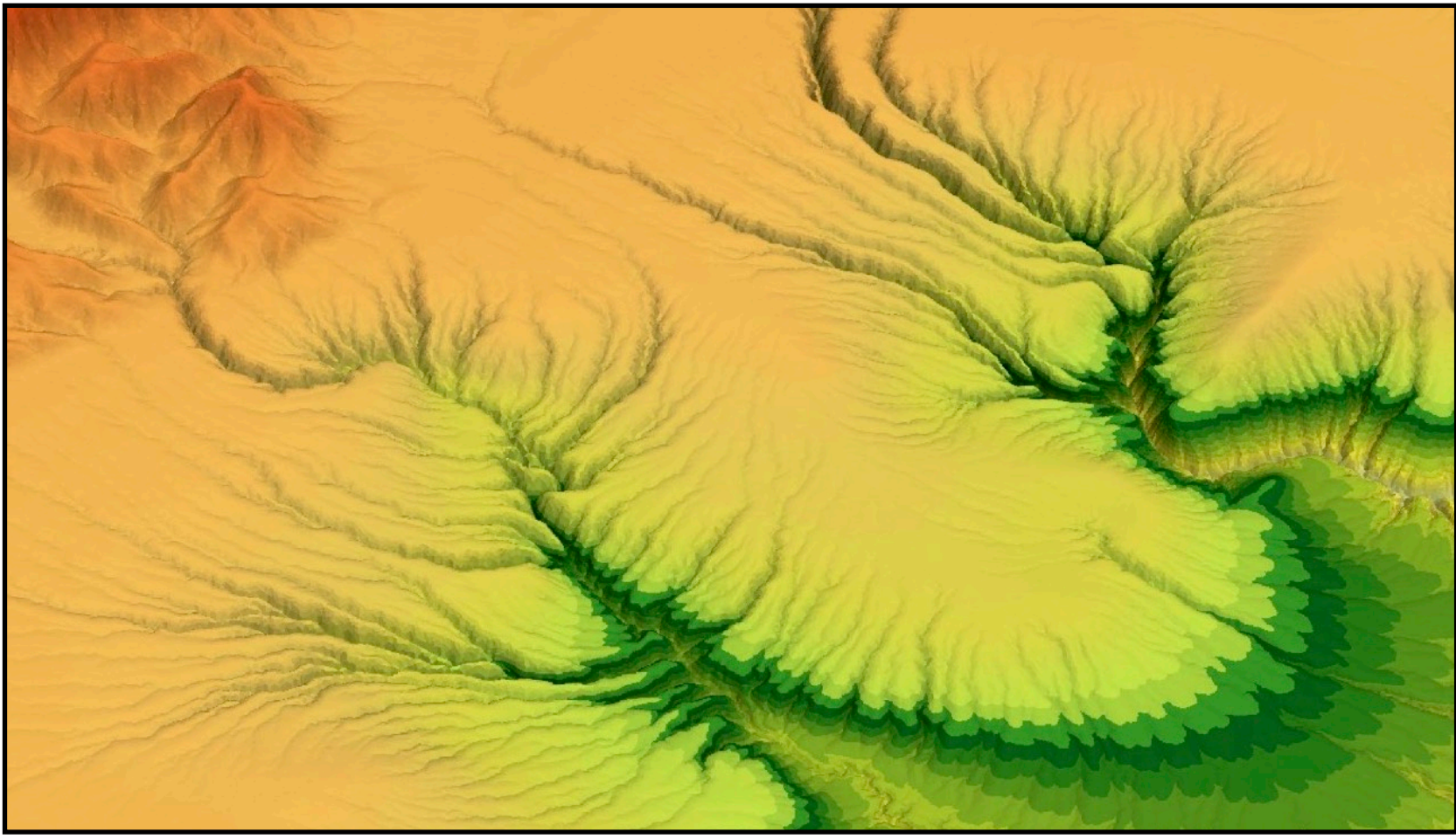


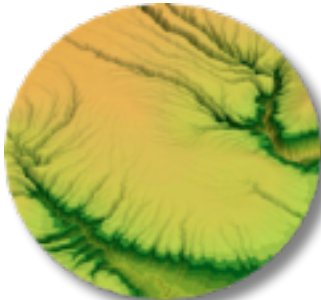




- time-dependent interaction of plate motion with mantle downwellings and upwellings
- broad pattern of margin highlands uplift phases

Citcoms



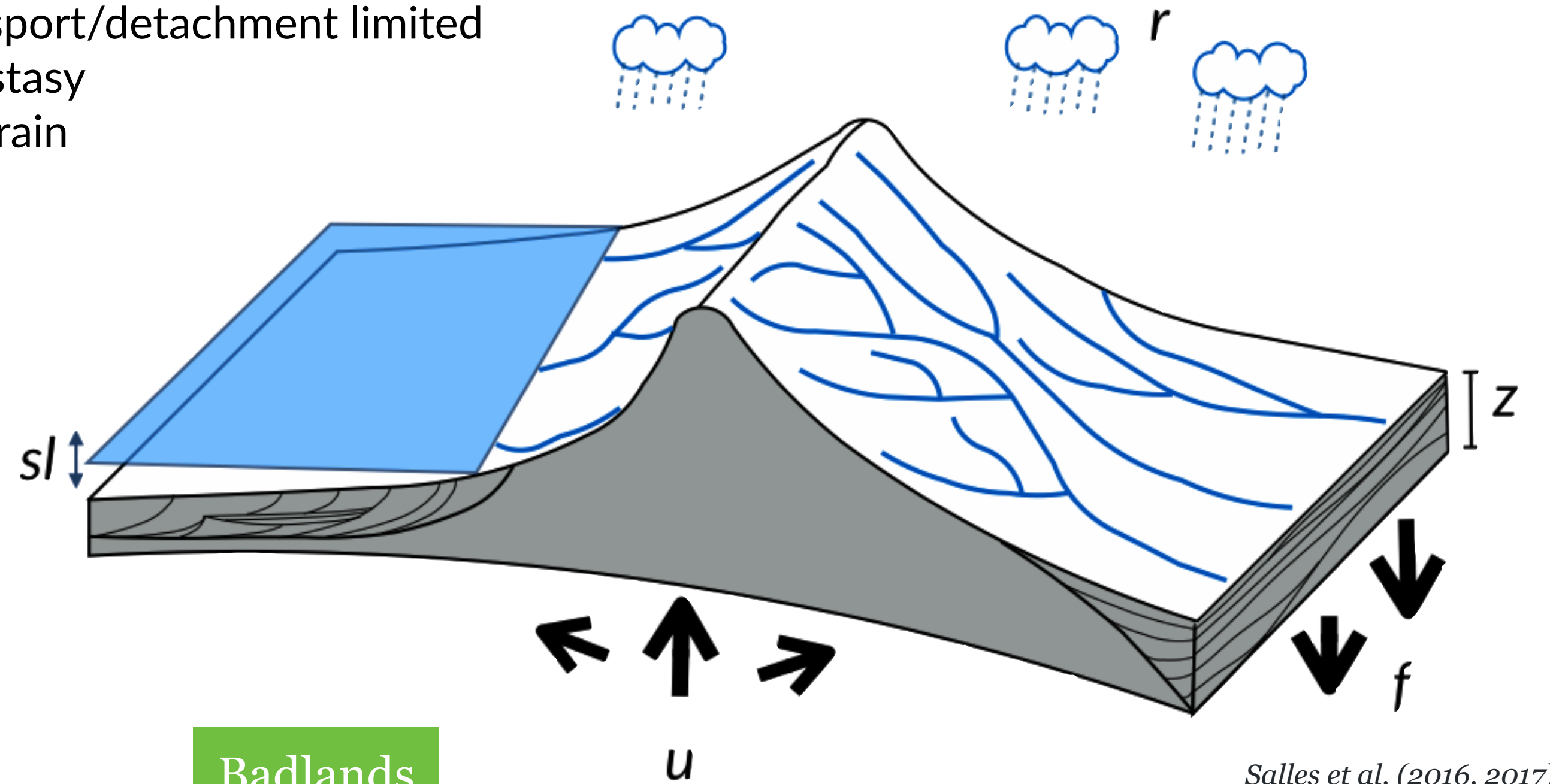


Badlands



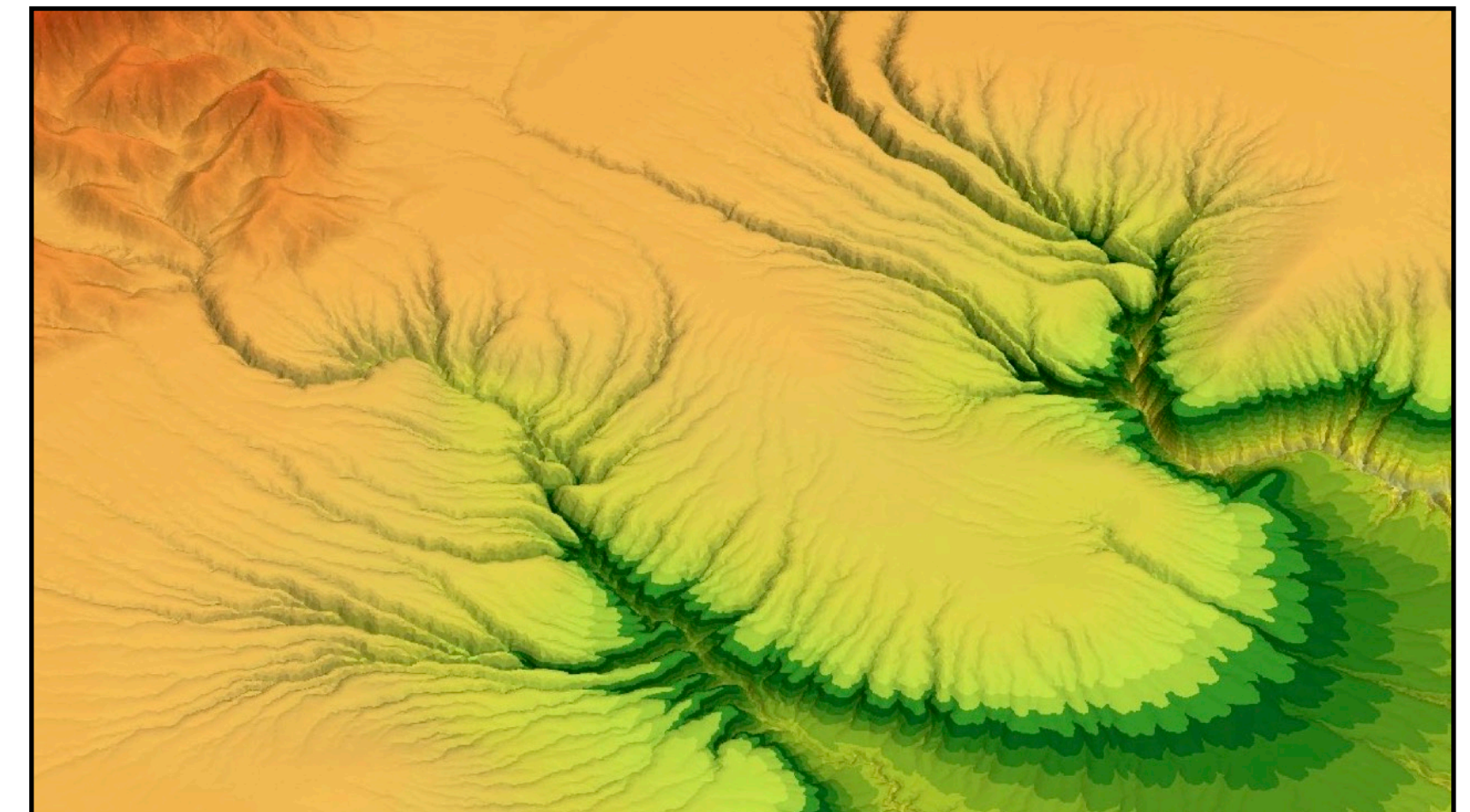
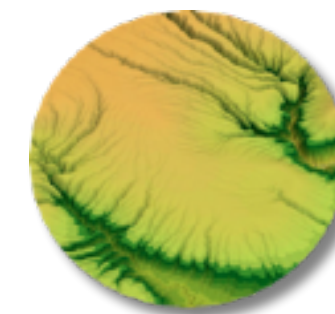
# Our Experimental Virtual Earth with SPM

- hillslope: simple creep law
- rivers: transport/detachment limited
- flexural isostasy
- orographic rain



Salles et al. (2016, 2017)

Badlands



- time-dependent interaction of plate motion with mantle downwellings and upwellings
- broad pattern of margin highlands uplift phases

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# Dynamic topography, erosion & landscape response

- low amplitude & long wavelength — very low slopes
- dynamic topography is efficiently eroded by fluvial erosion
- changes in dynamic topography produce an erosional response in the form of increased sediment flux to continental margins
- this response can persist long after the influence of dynamic topography

