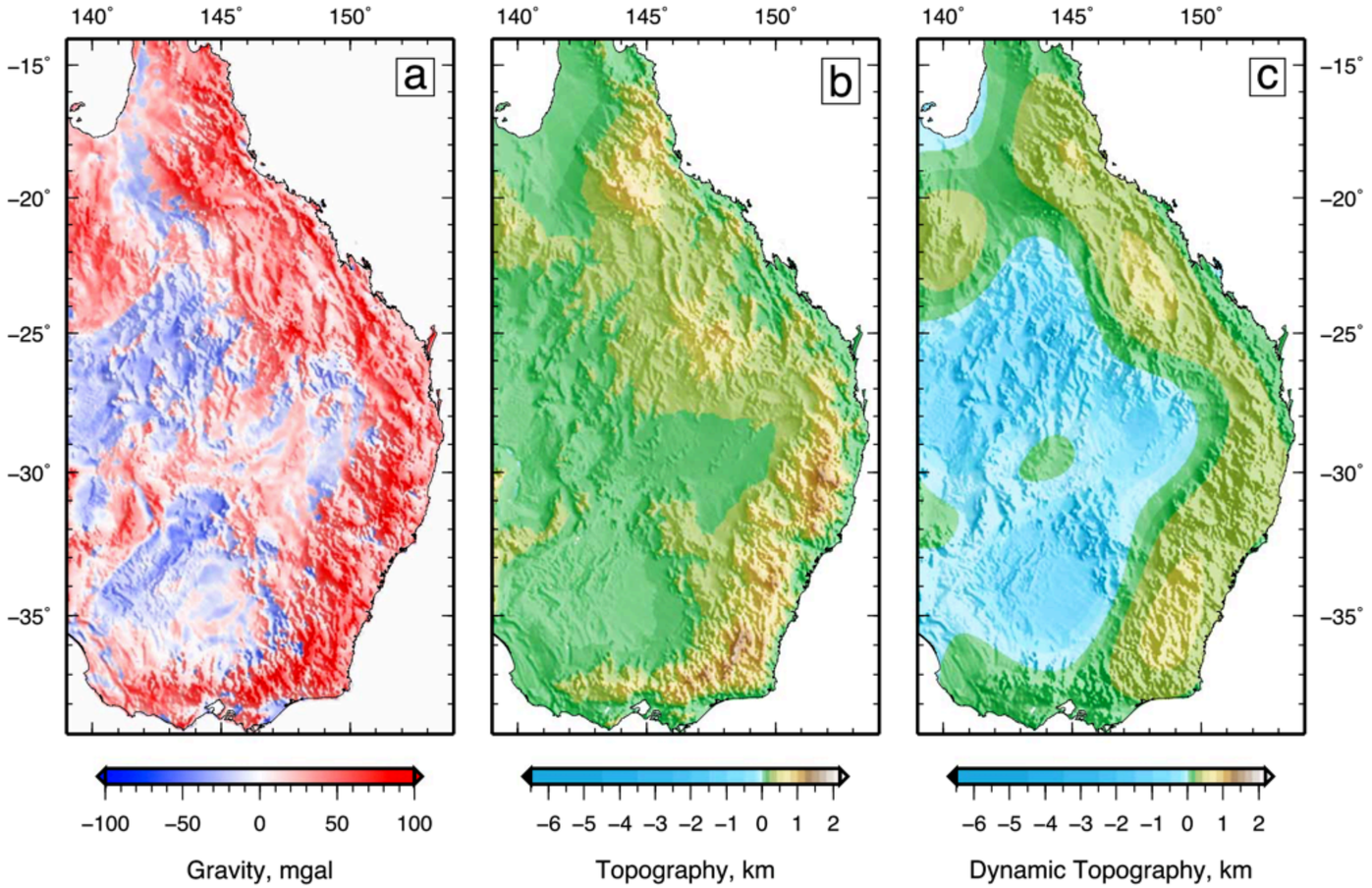
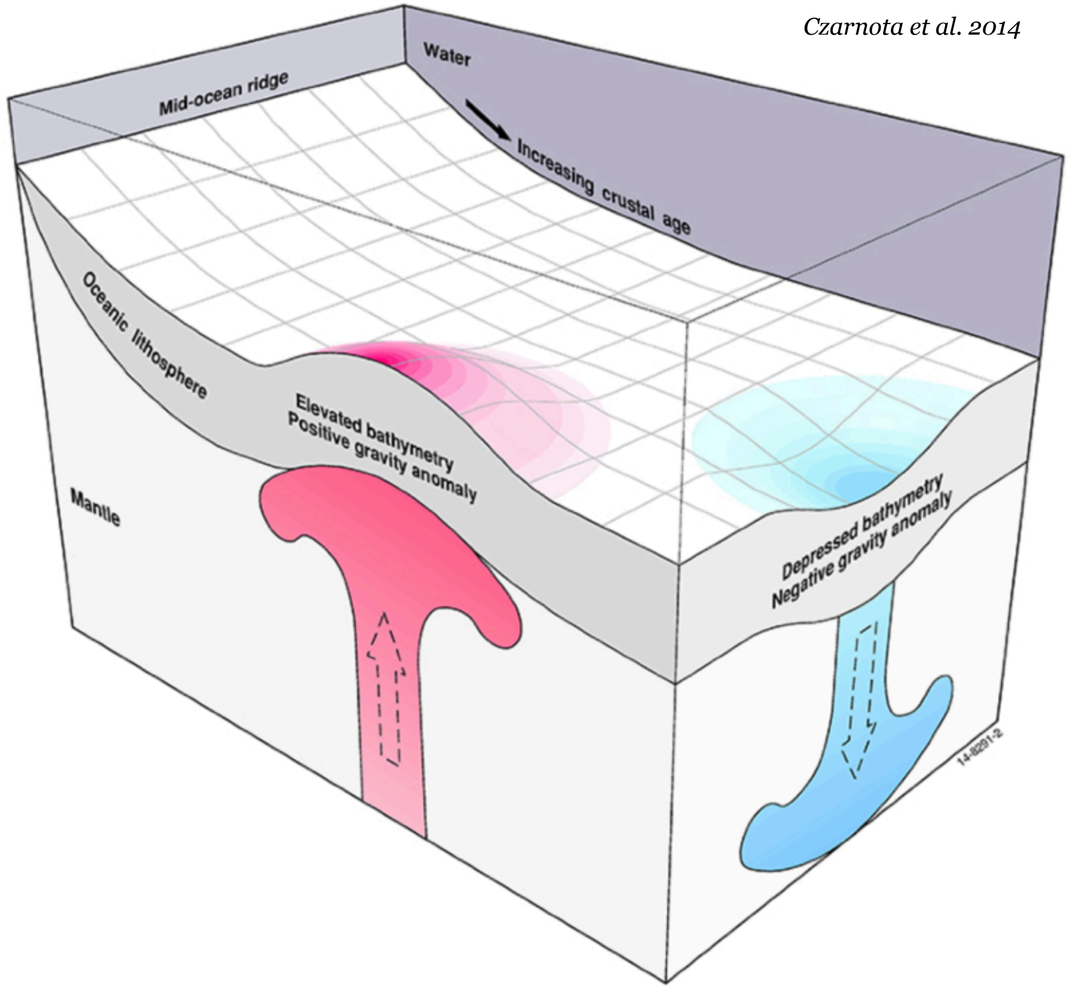
Uplift mechanism of the Australian Eastern Highlands



Czarnota et al. 2014



- Significant portion of Earth's topography results from the viscous stresses created by flow within the underlying mantle
- Most prominent topographic features of the Australian landscape and offshore sedimentary basin seem related to the expression of this convective circulation beneath the Australian Plate.

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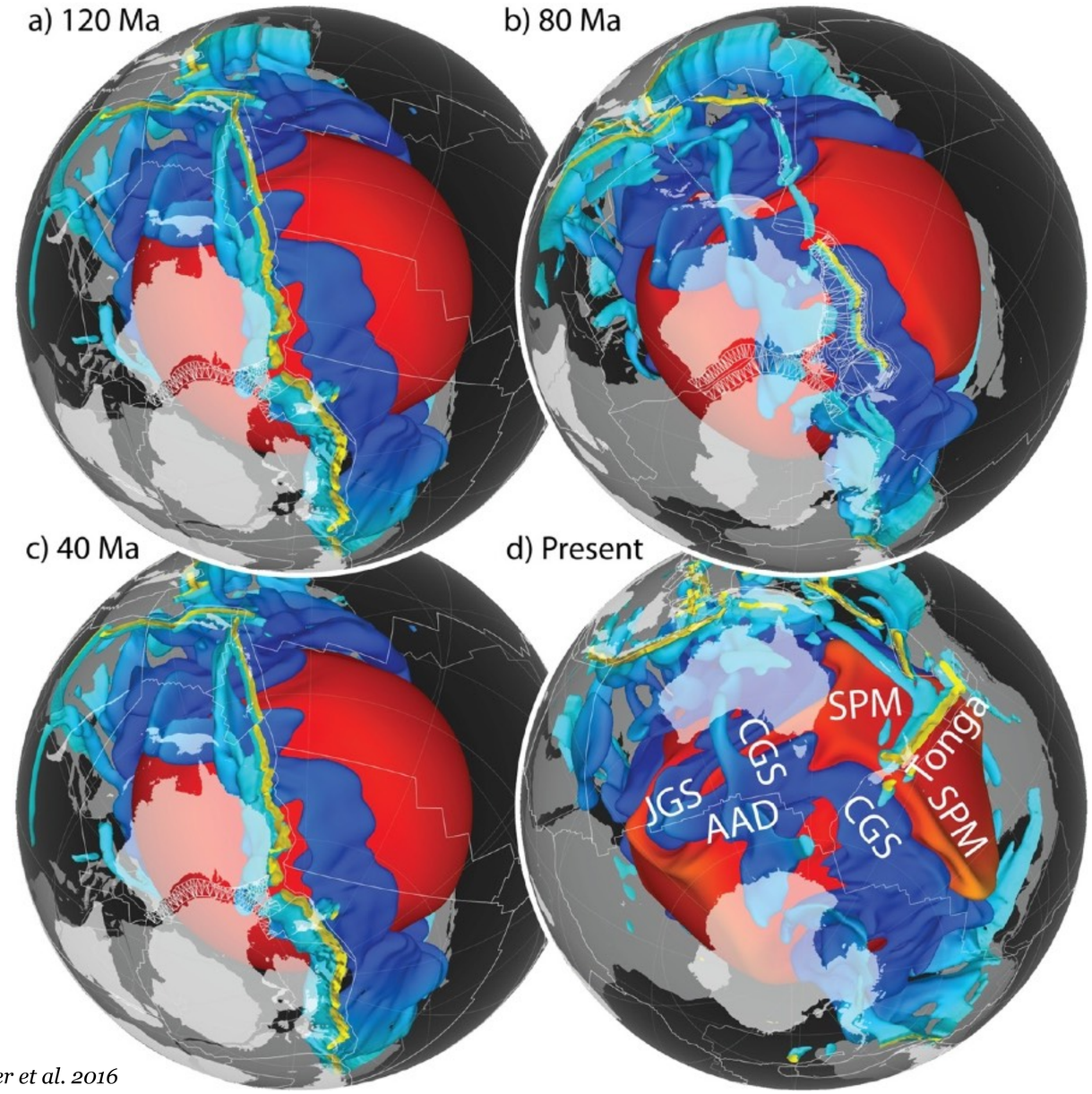

Muller et al. 2016

- *Passive margin mountains*
- Not formed by continental collision like most mountain chains
- Two distinct phases of uplift
- Why and how does this work?
- Large gravity/topography ratio suggests a dynamic uplift mechanism, driven by the interaction of a moving continent and mantle flow through time