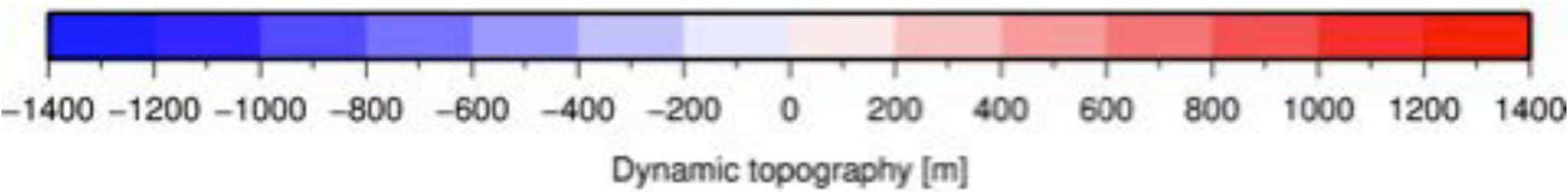
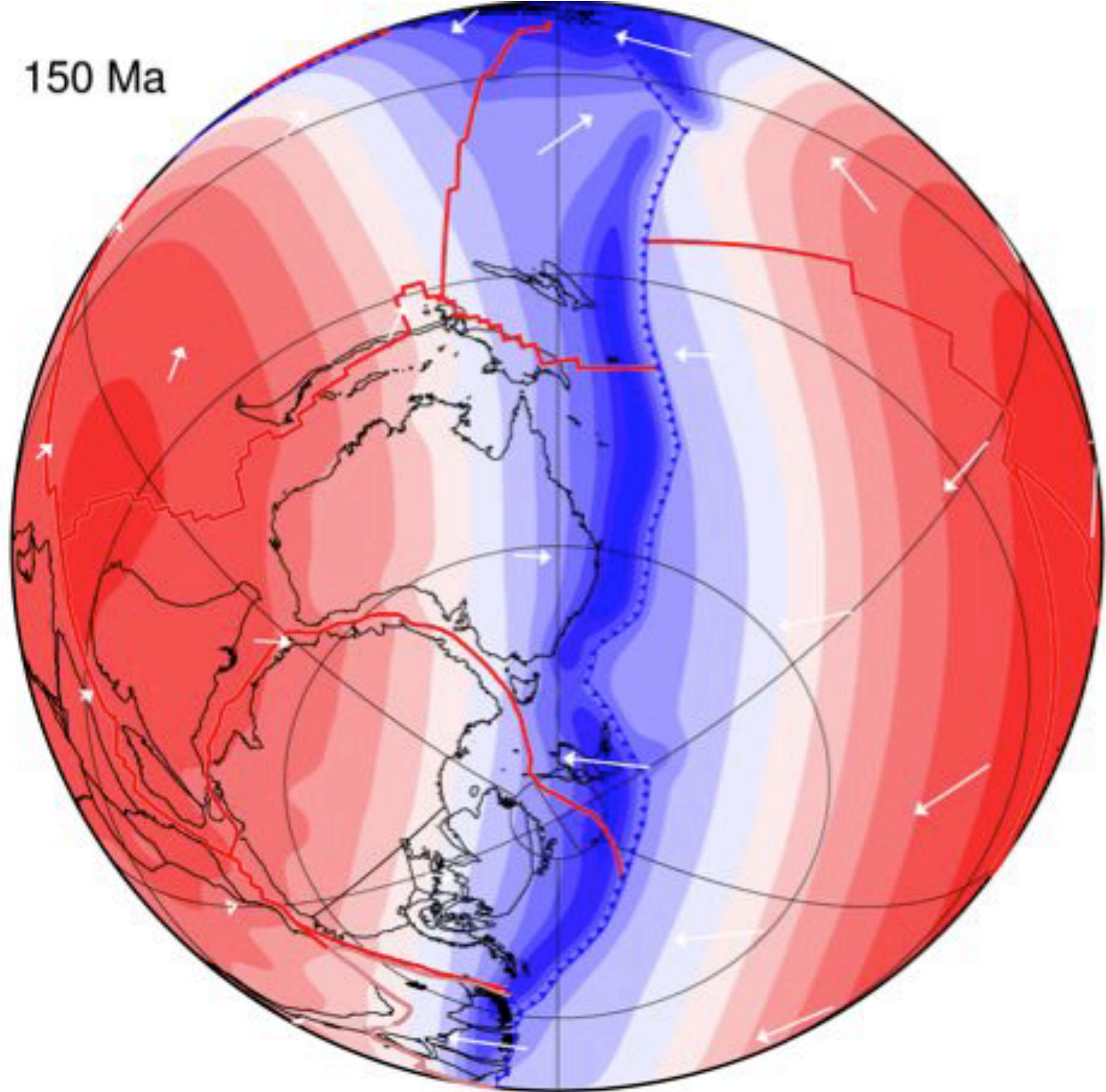




- 120-80 Ma: dynamic uplift of 400-600 m driven by eastward motion of eastern Australia's margin away from the sinking eastern Gondwana slab
- ~60 Ma: tectonic quiescence in the south
- 40-0 Ma: renewed uplift of ~700 m in the Snowy Mountains induced by gradual motion of the margin over the edge of the large southwest Pacific superswell
- What effects have these processes on landscape evolution?

*Muller et al. 2016*

150 Ma

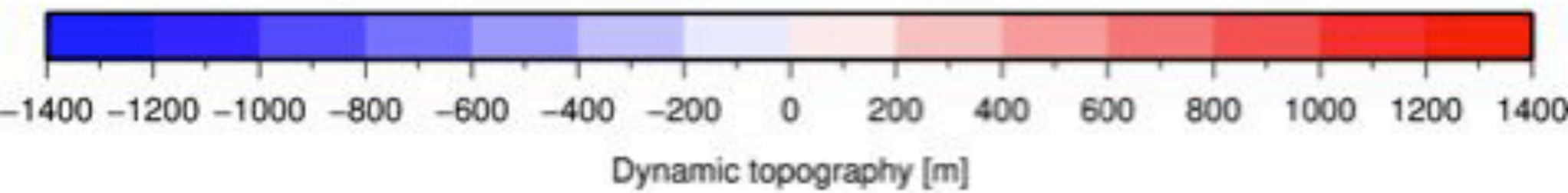
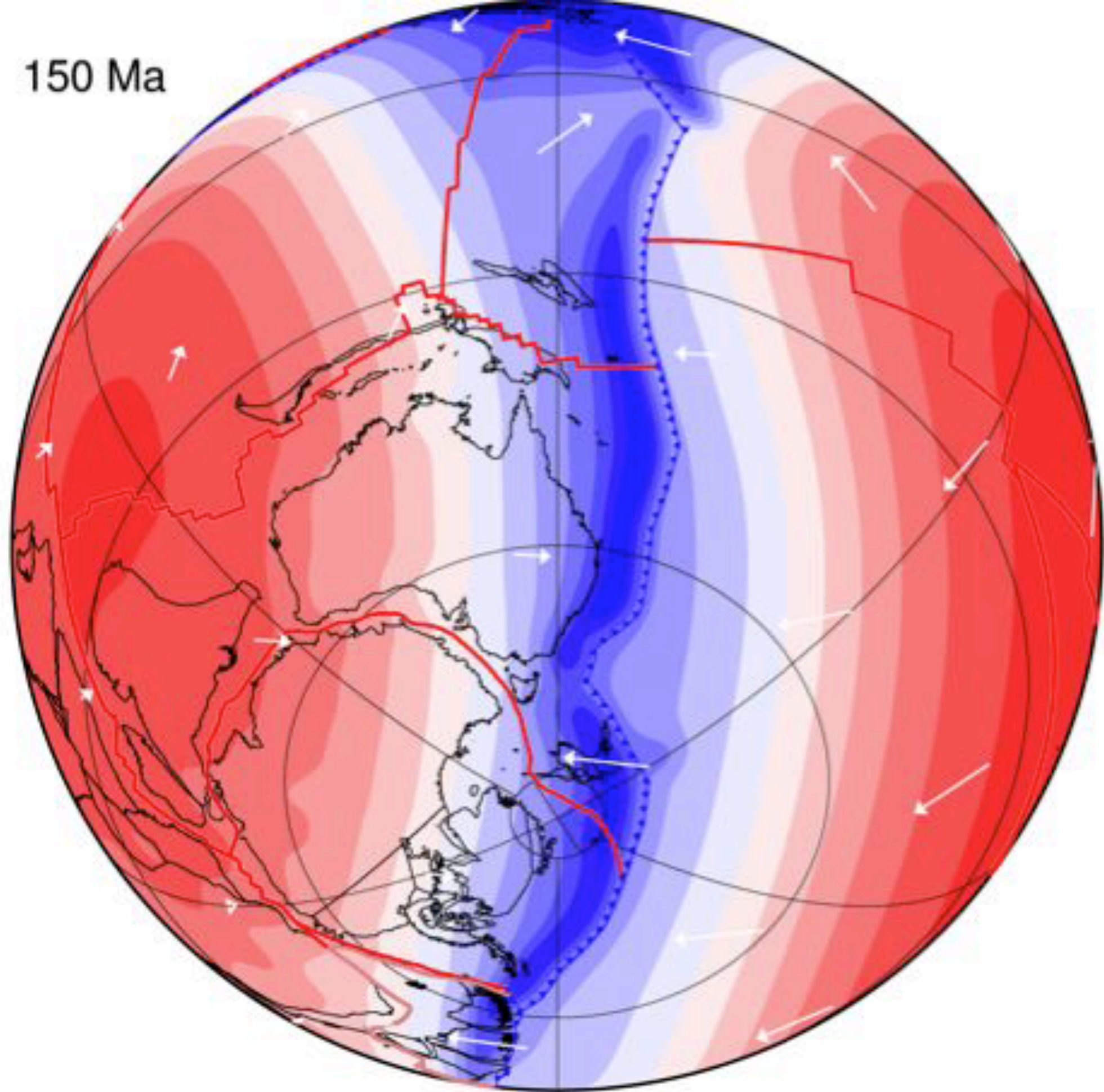


Up lift history spanning over 100 million years

Formation of Australian continent in high



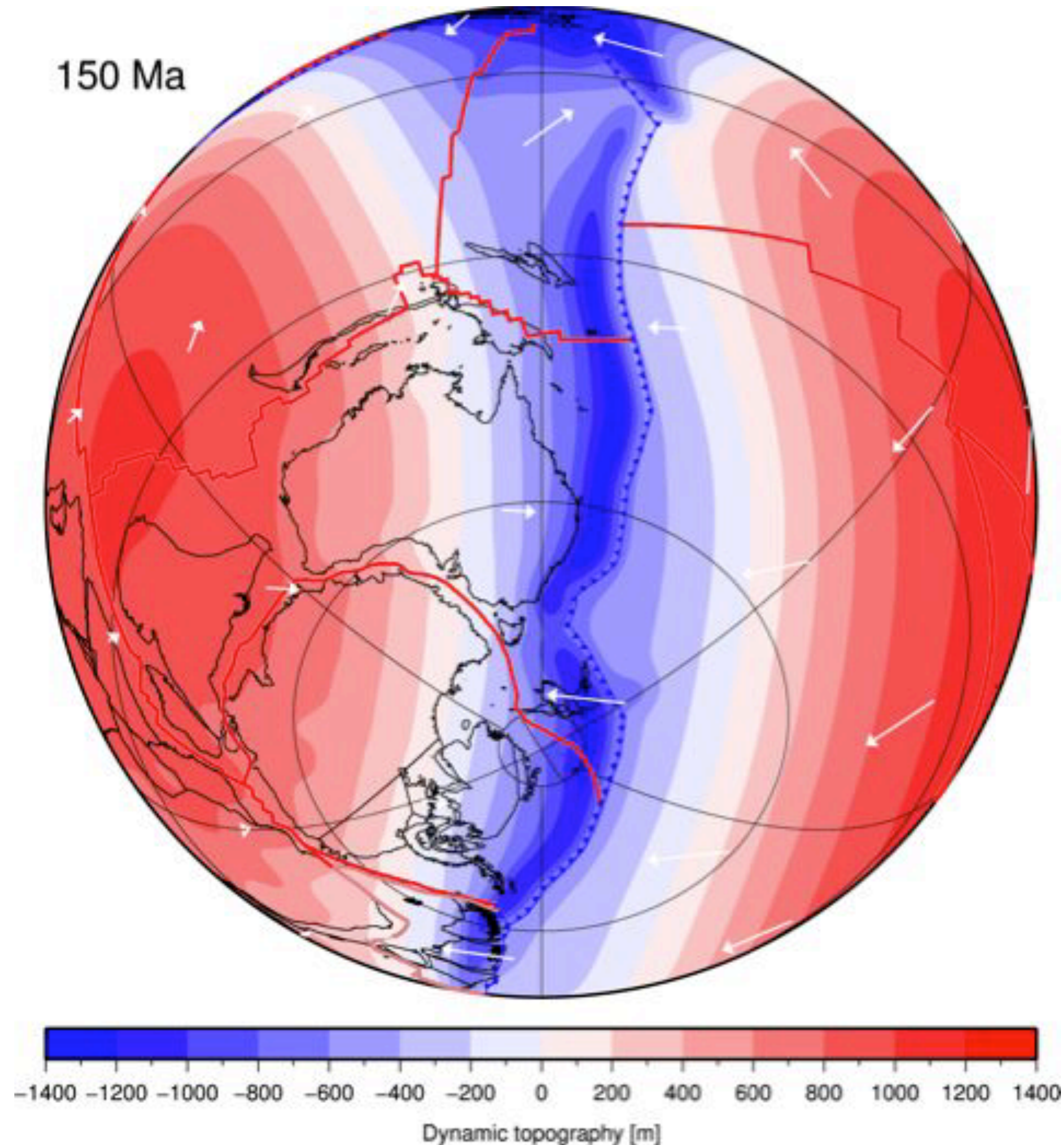
150 Ma





# Formation of Australian continental margin highlands

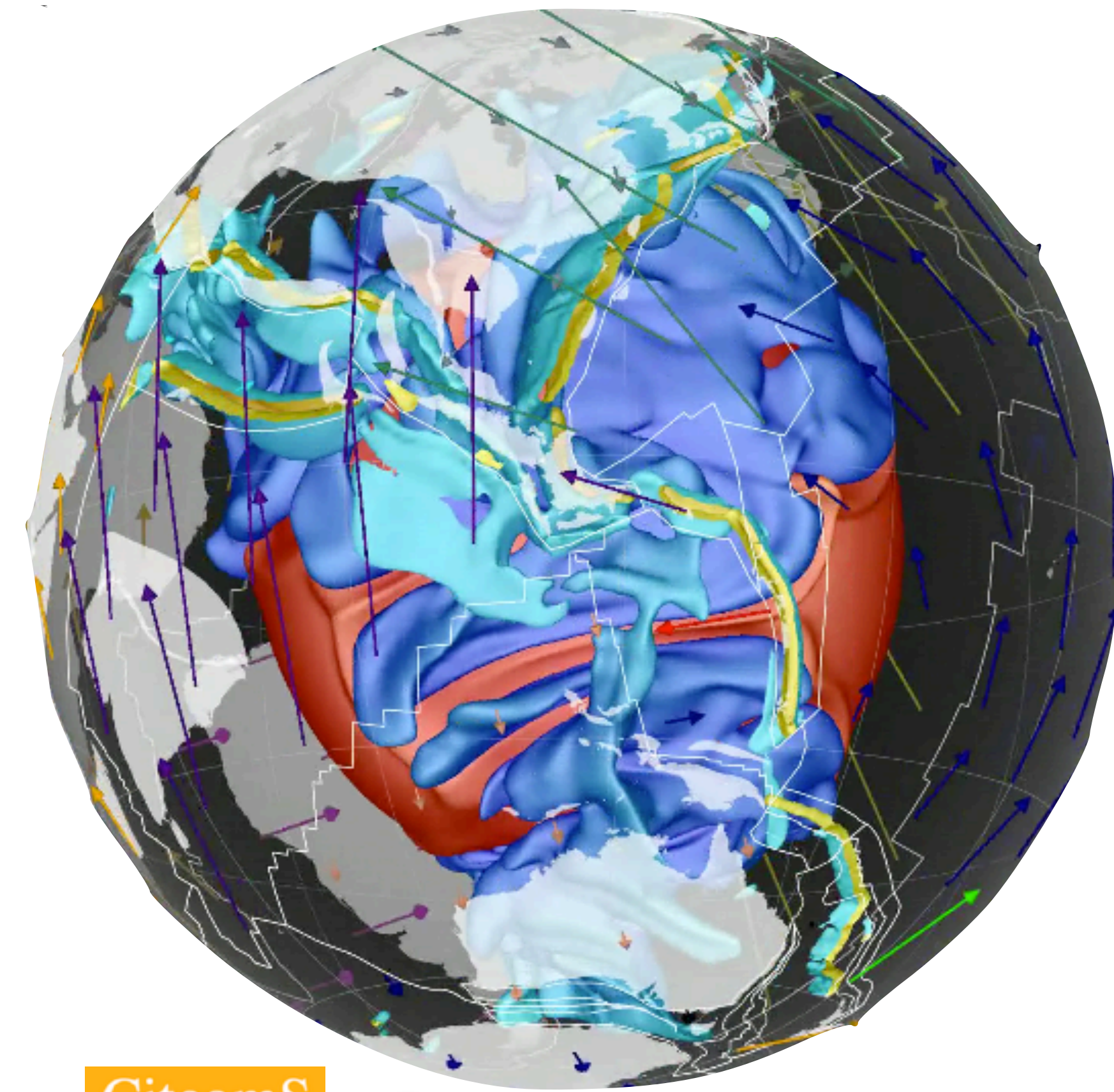
Uplift history spanning over 100 million years



- 120-80 Ma: dynamic uplift of 400-600 m driven by eastward motion of eastern Australia's margin away from the sinking eastern Gondwana slab
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- What effects have these processes on landscape evolution?



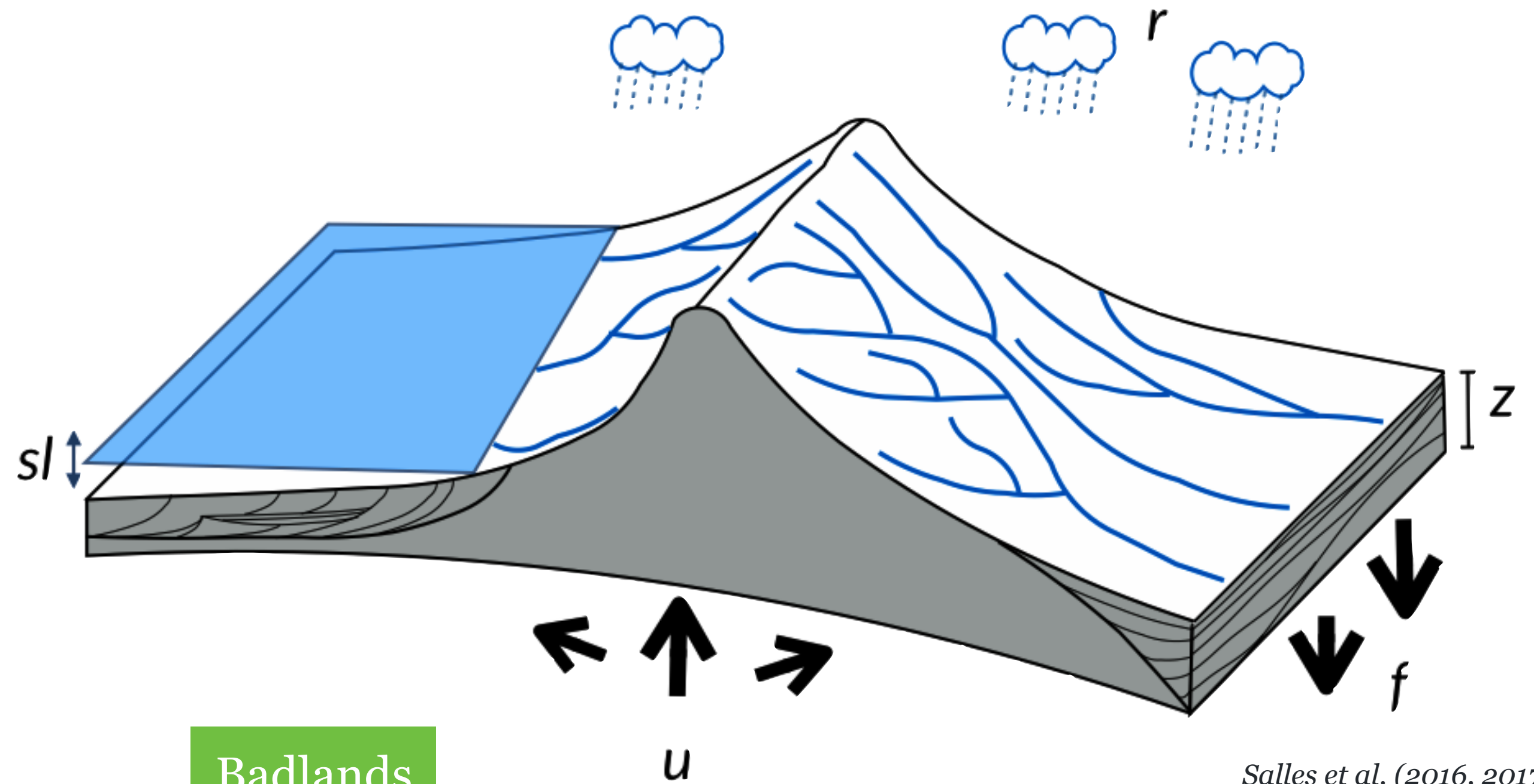
# Our Experimental Virtual Earth with SPM



CitcomS



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



*Salles et al. (2016, 2017)*

Badlands

