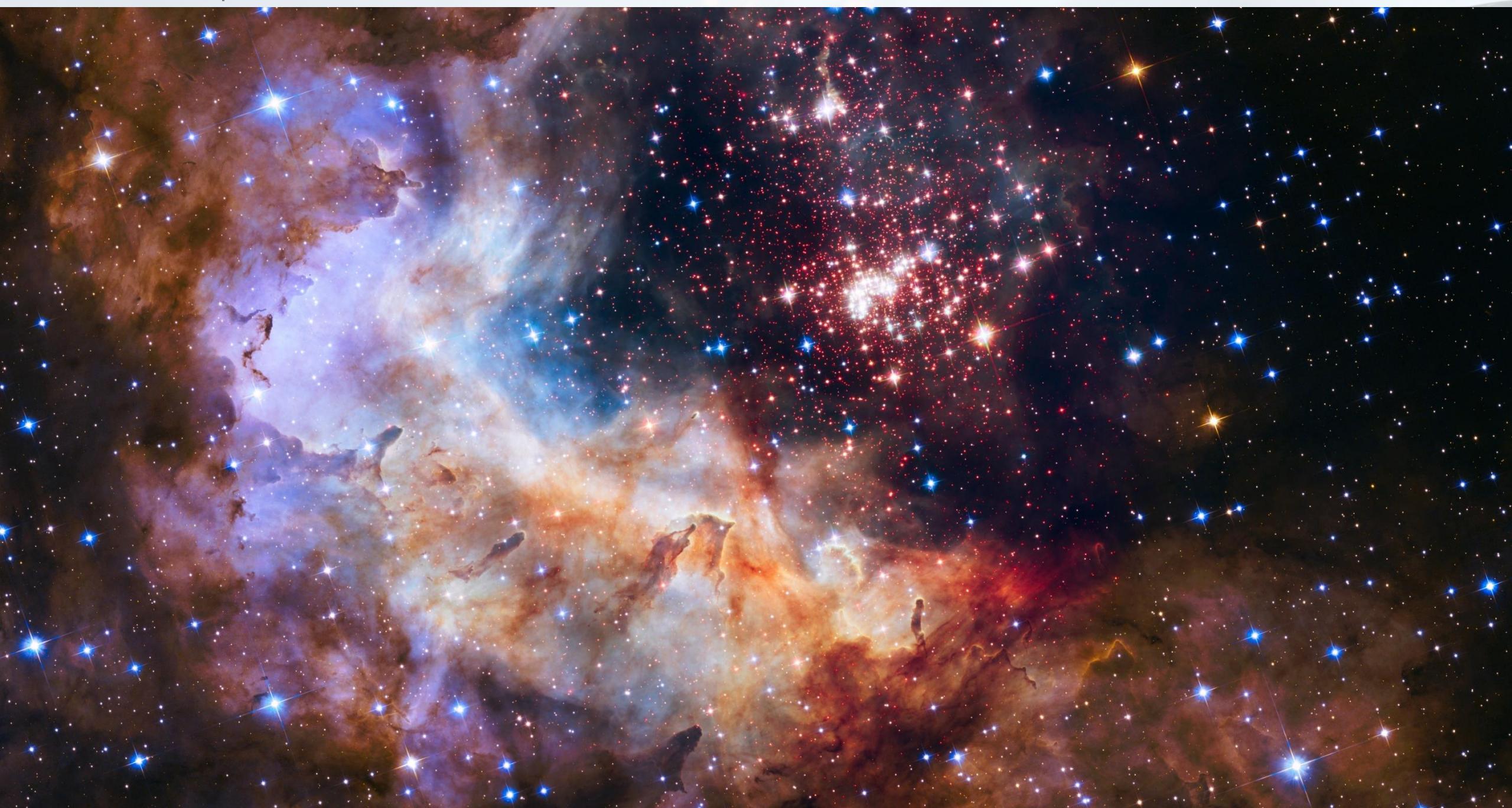


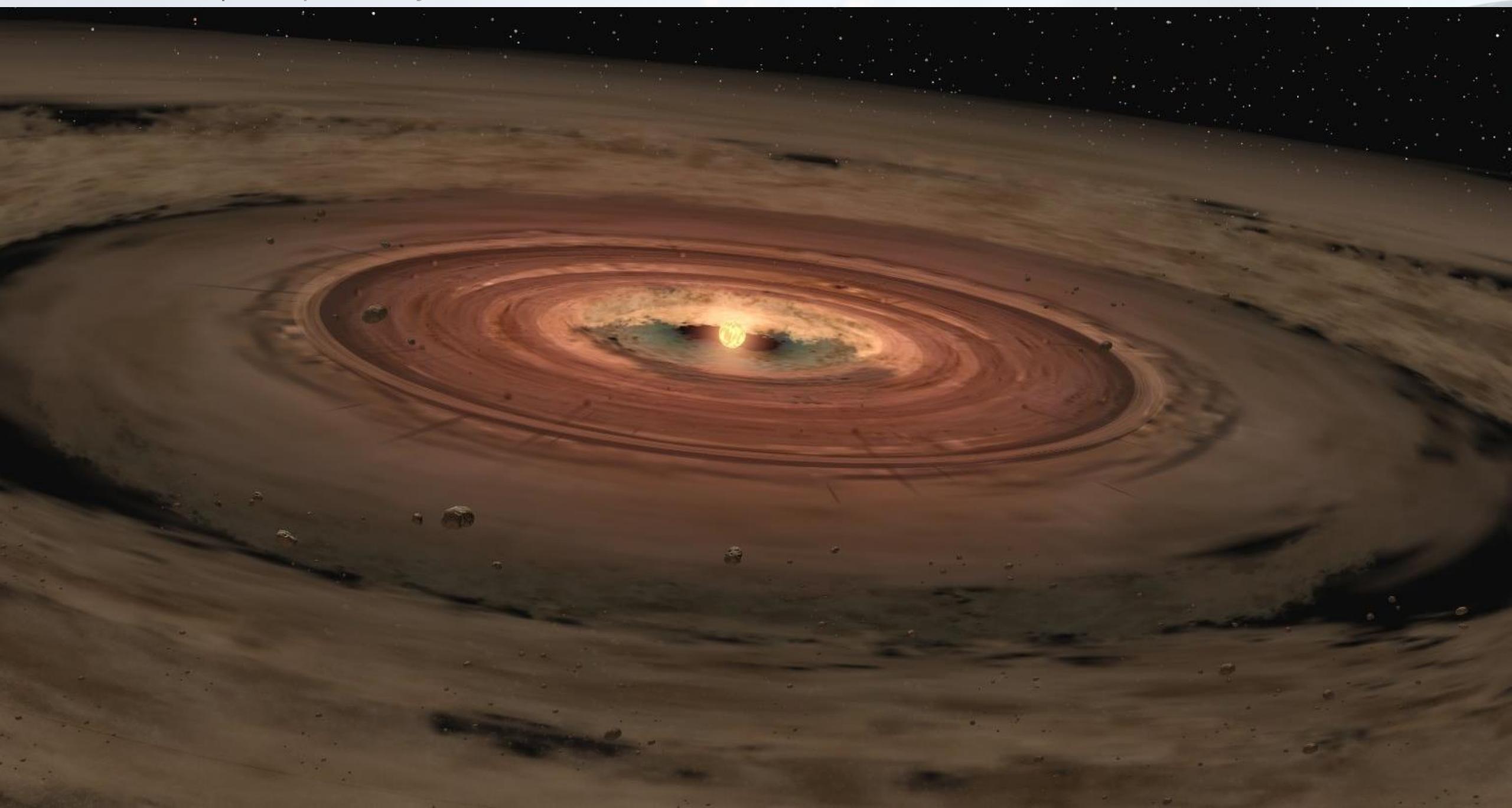


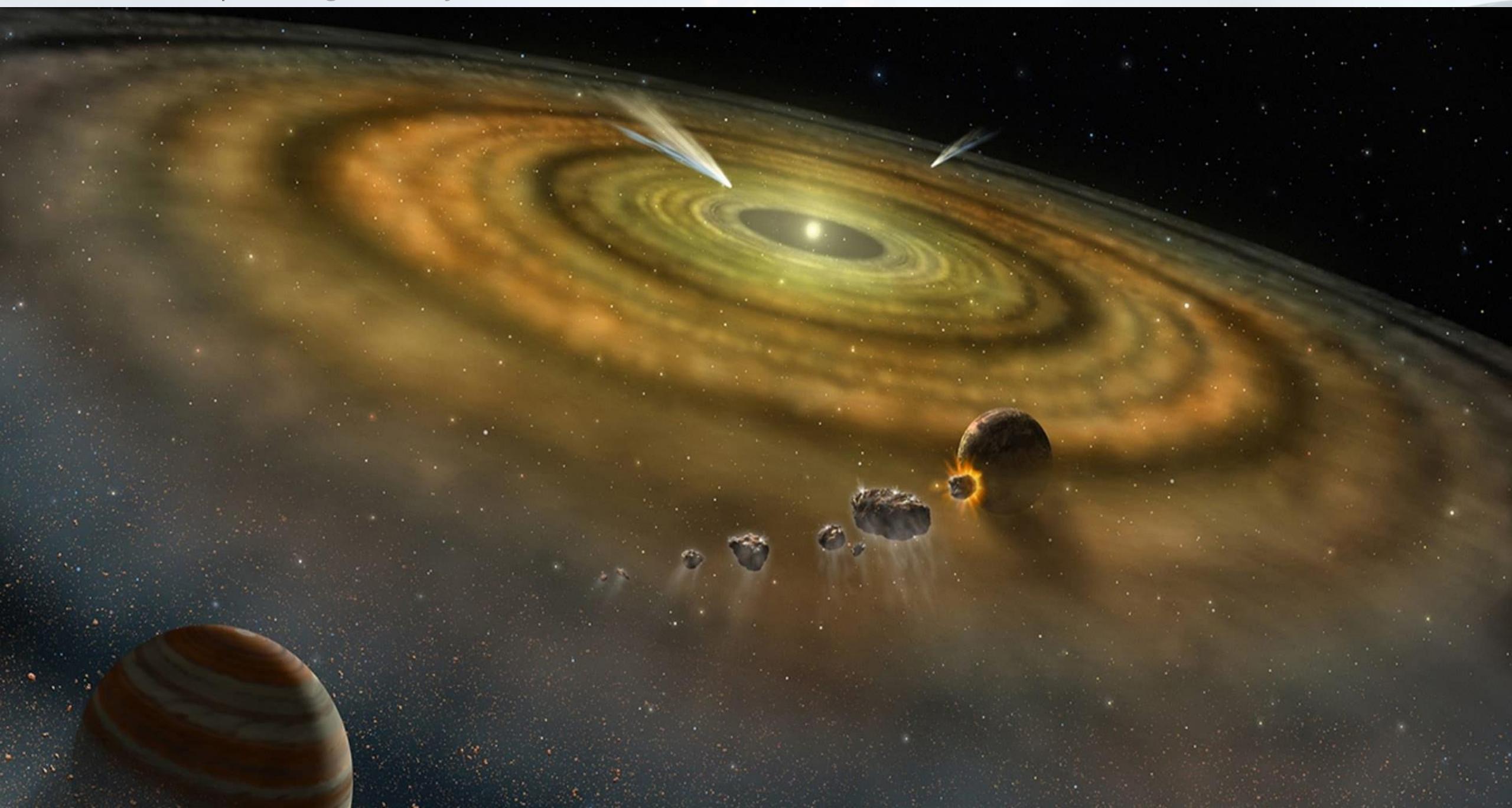
GY4051 Earth Science and Society

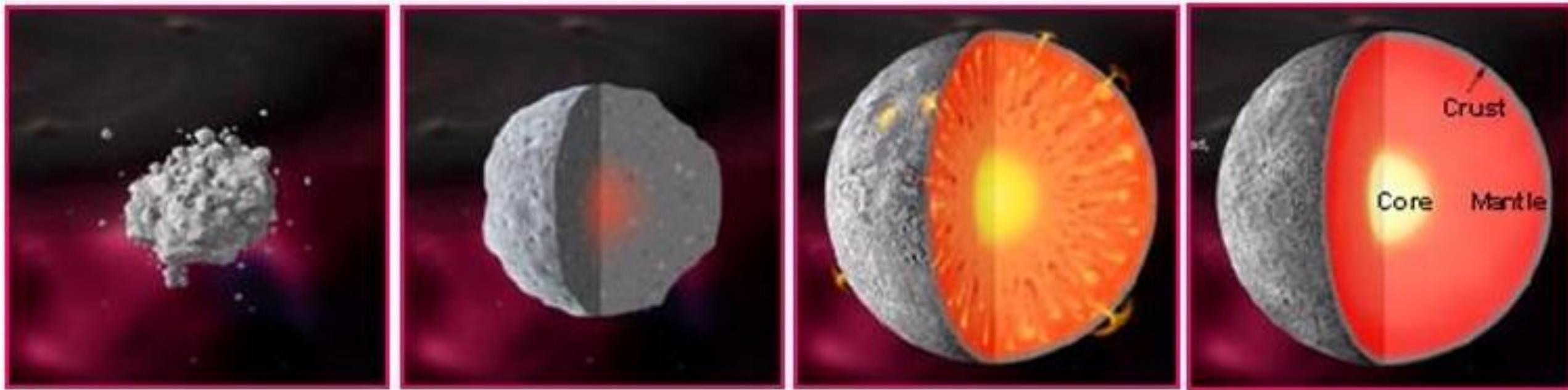
Plate Tectonics











Crust/pre-differentiation
Stony Chondrite
(accreted dust & grains)

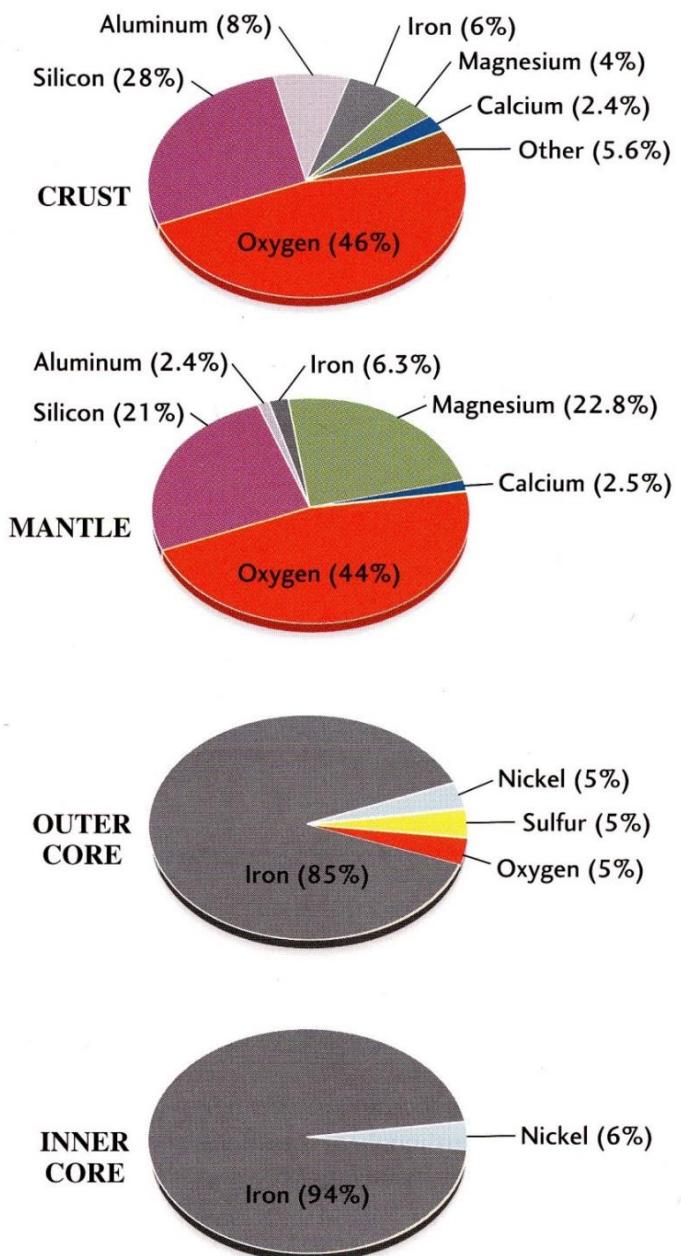
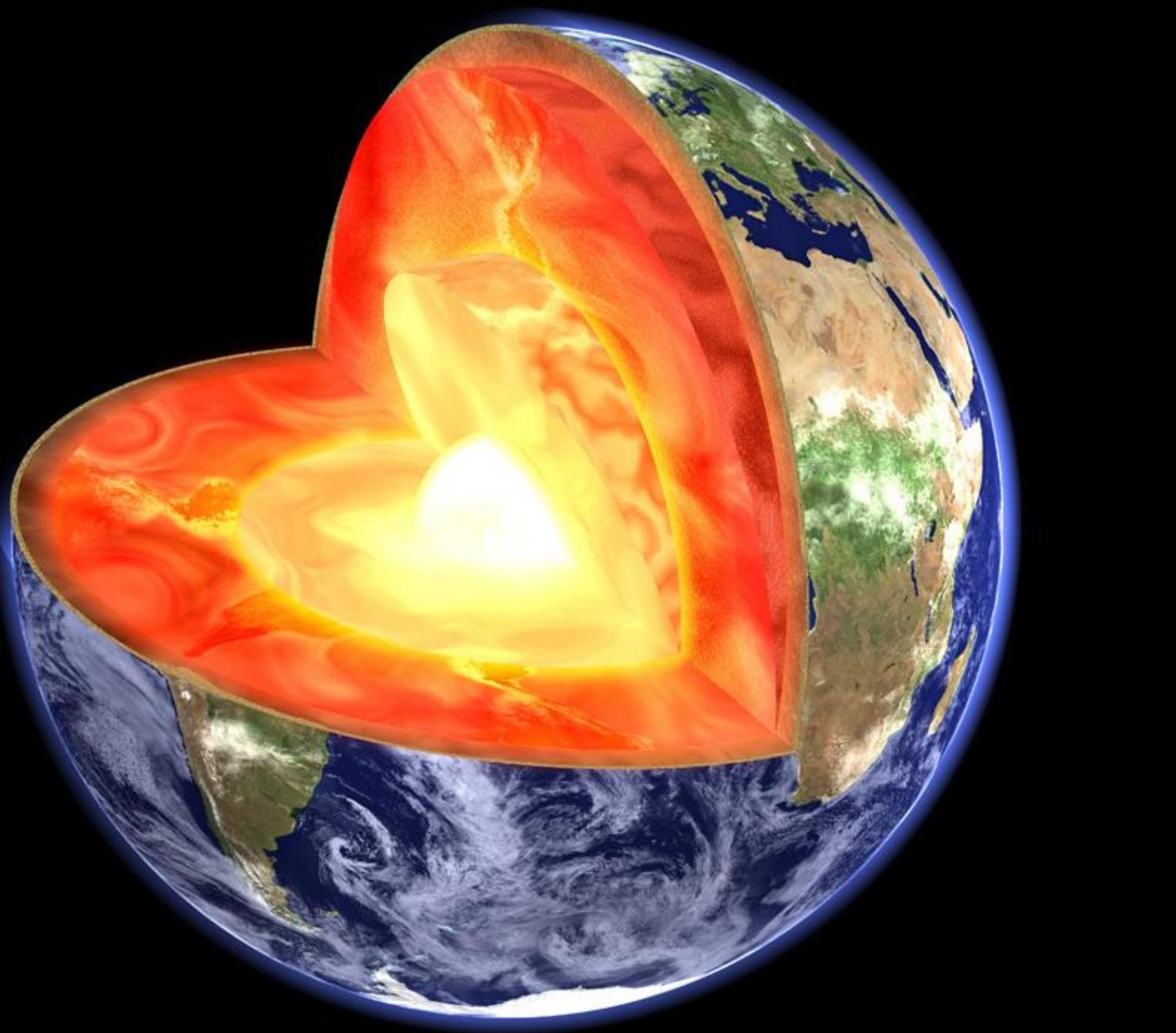
Mantle
Stony Achondrite
(crystallised from melt)

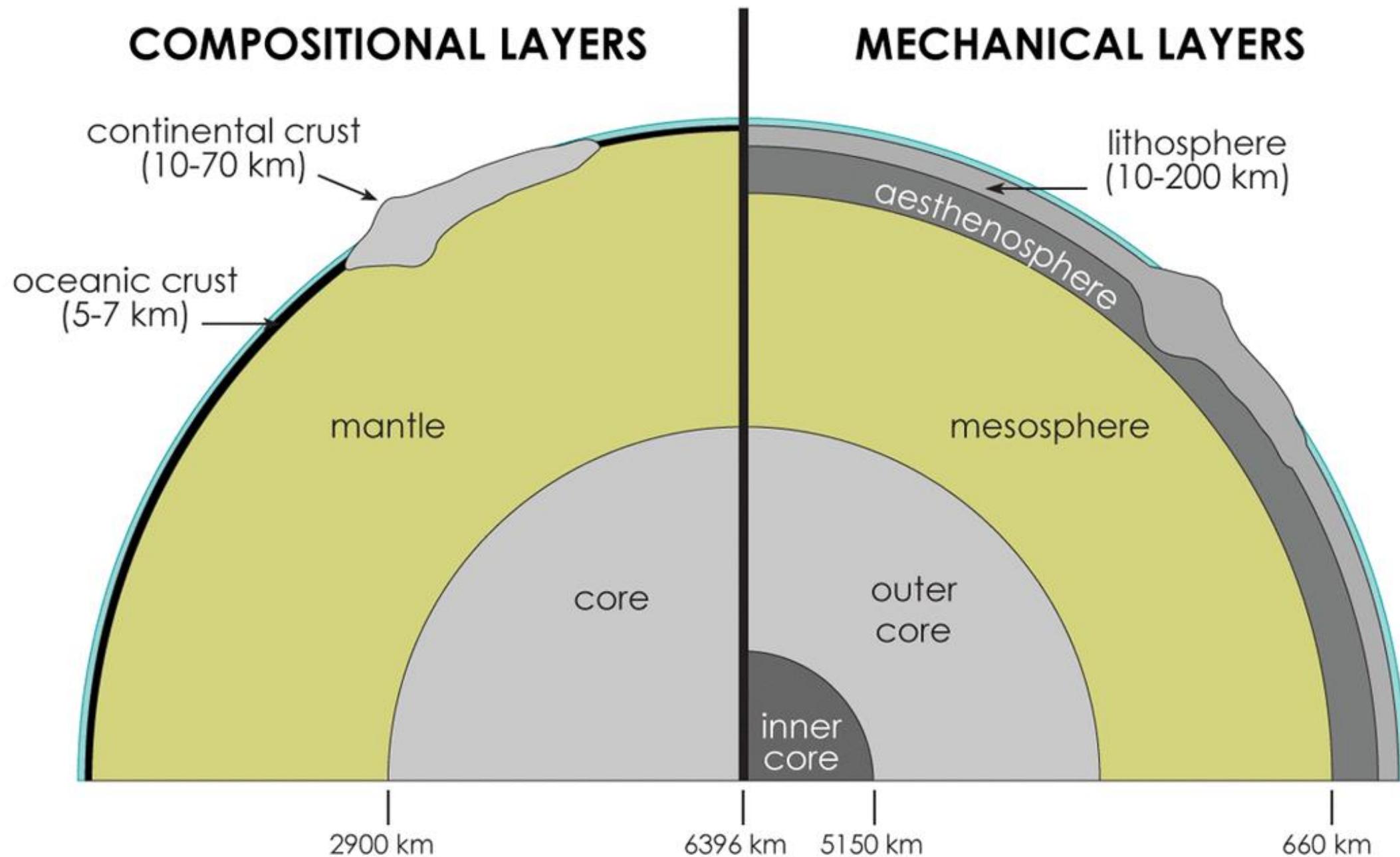
Core-Mantle boundary
Pallasite
(Iron + olivine)

Core
Iron













Habitable Zone

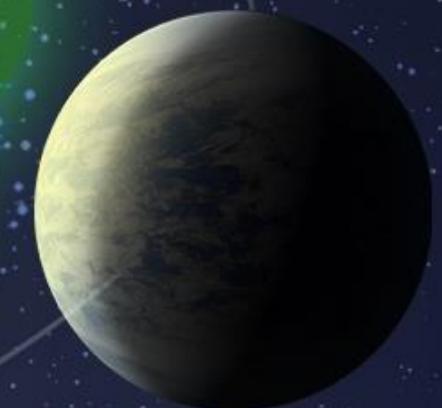
TOO HOT



JUST RIGHT



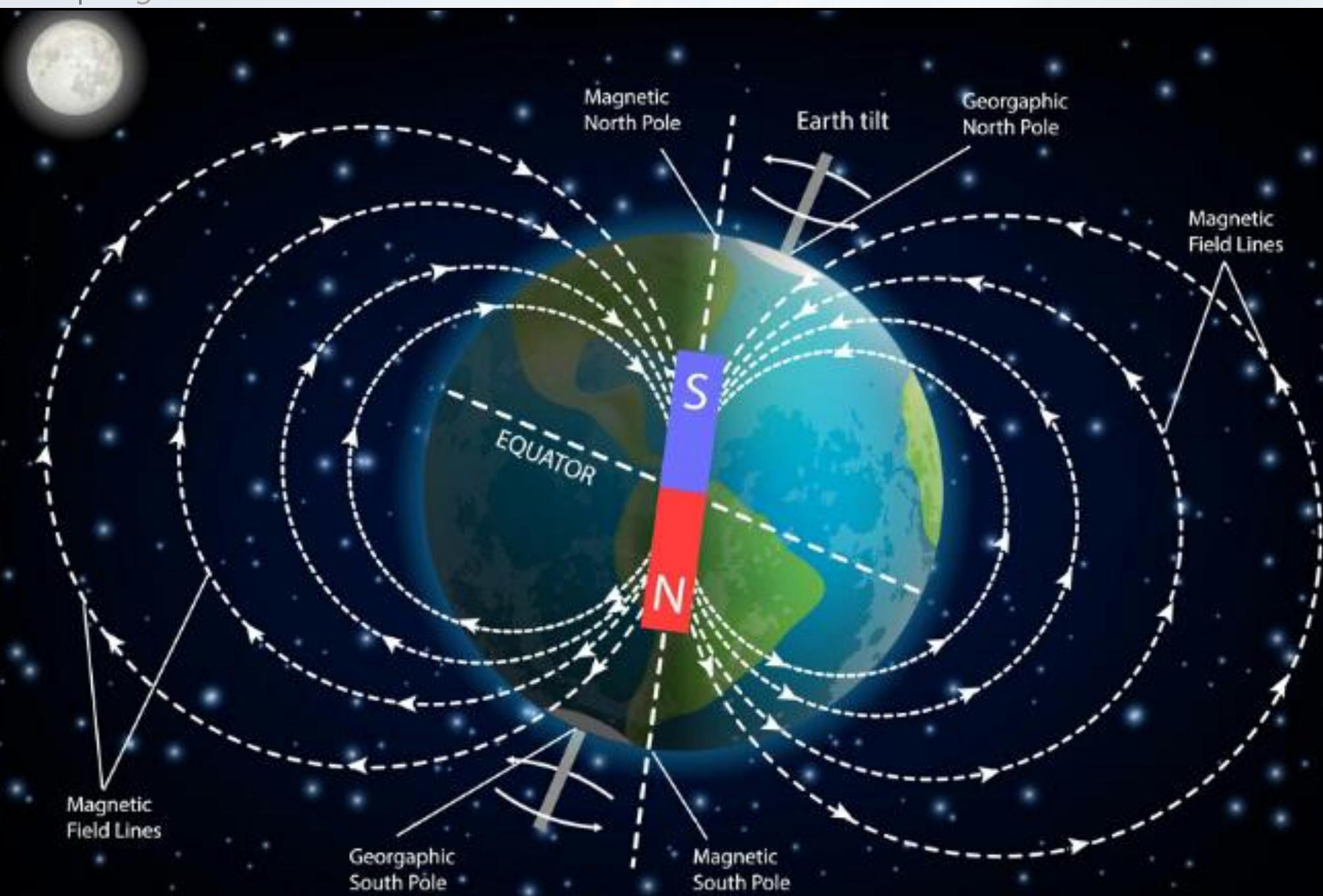
TOO COLD



Planet size: 1-2x Earth

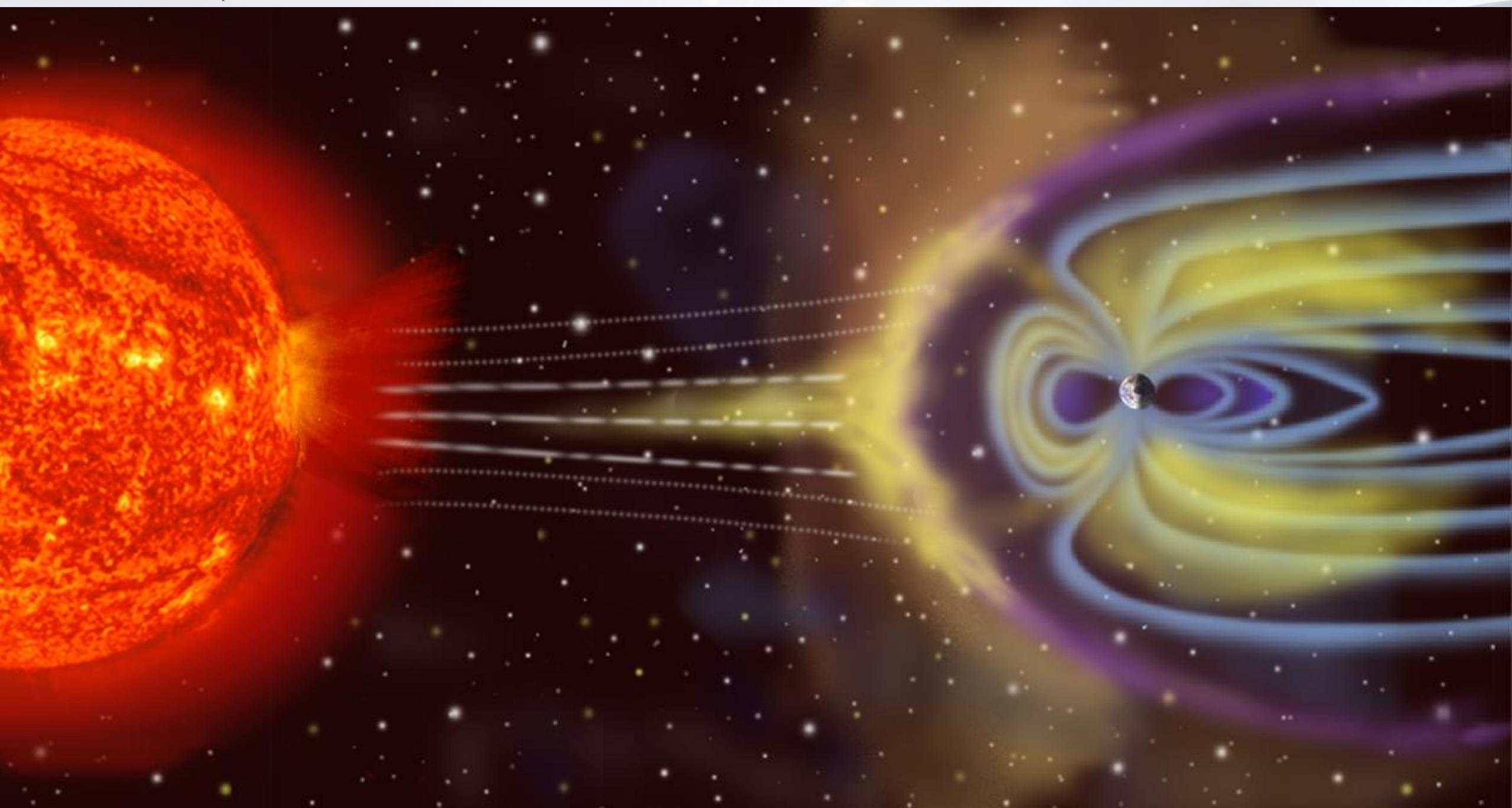


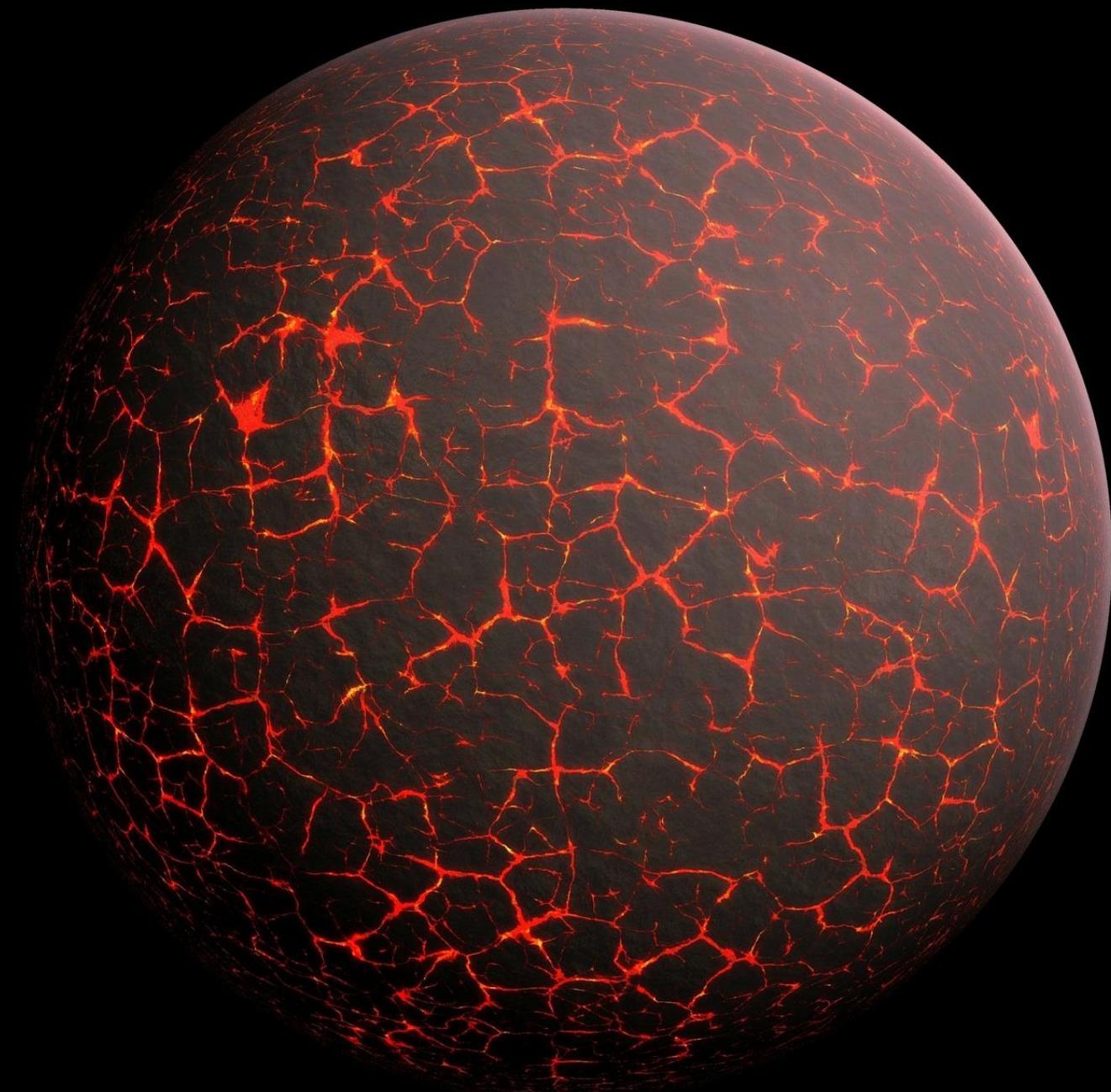




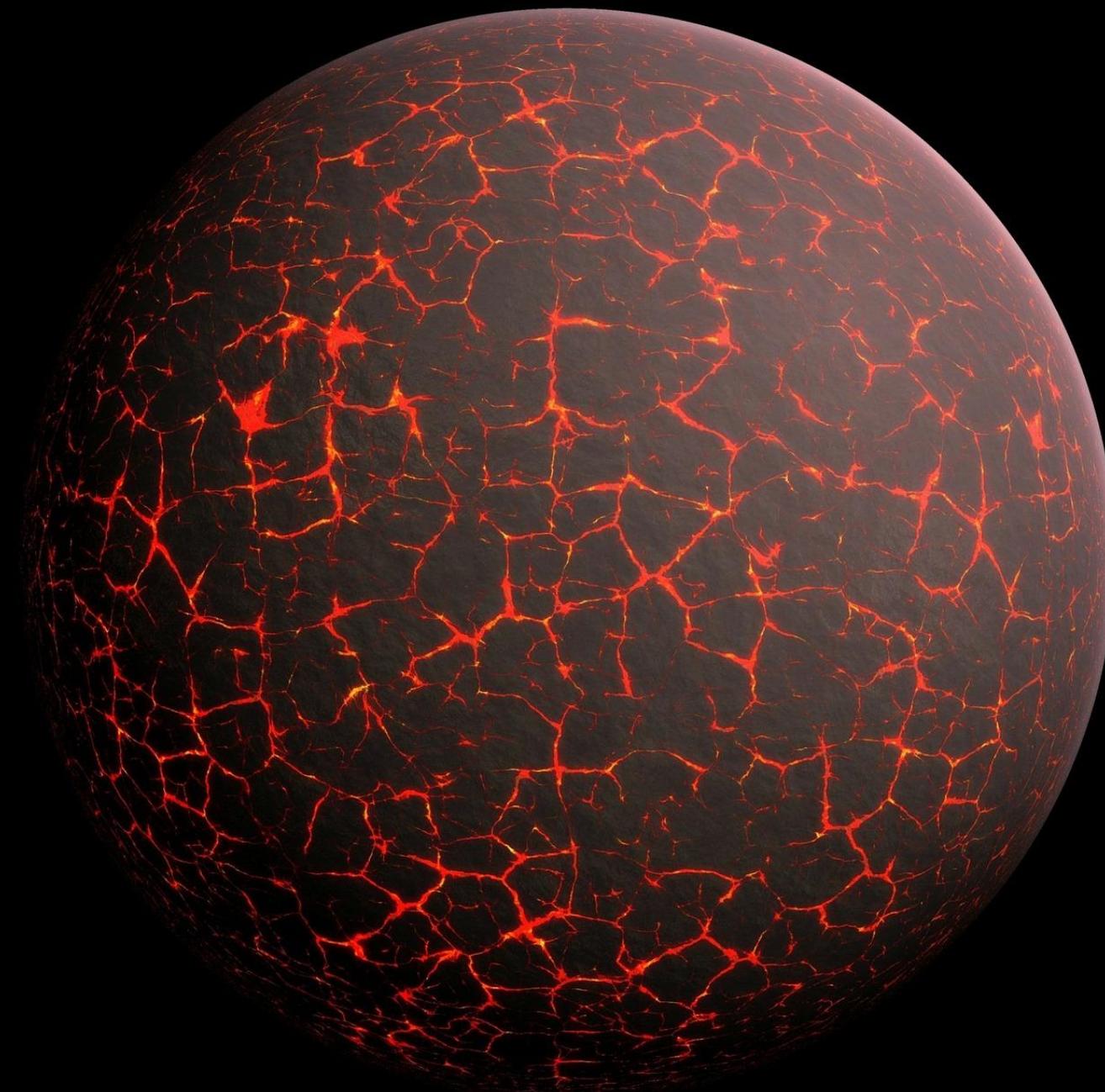


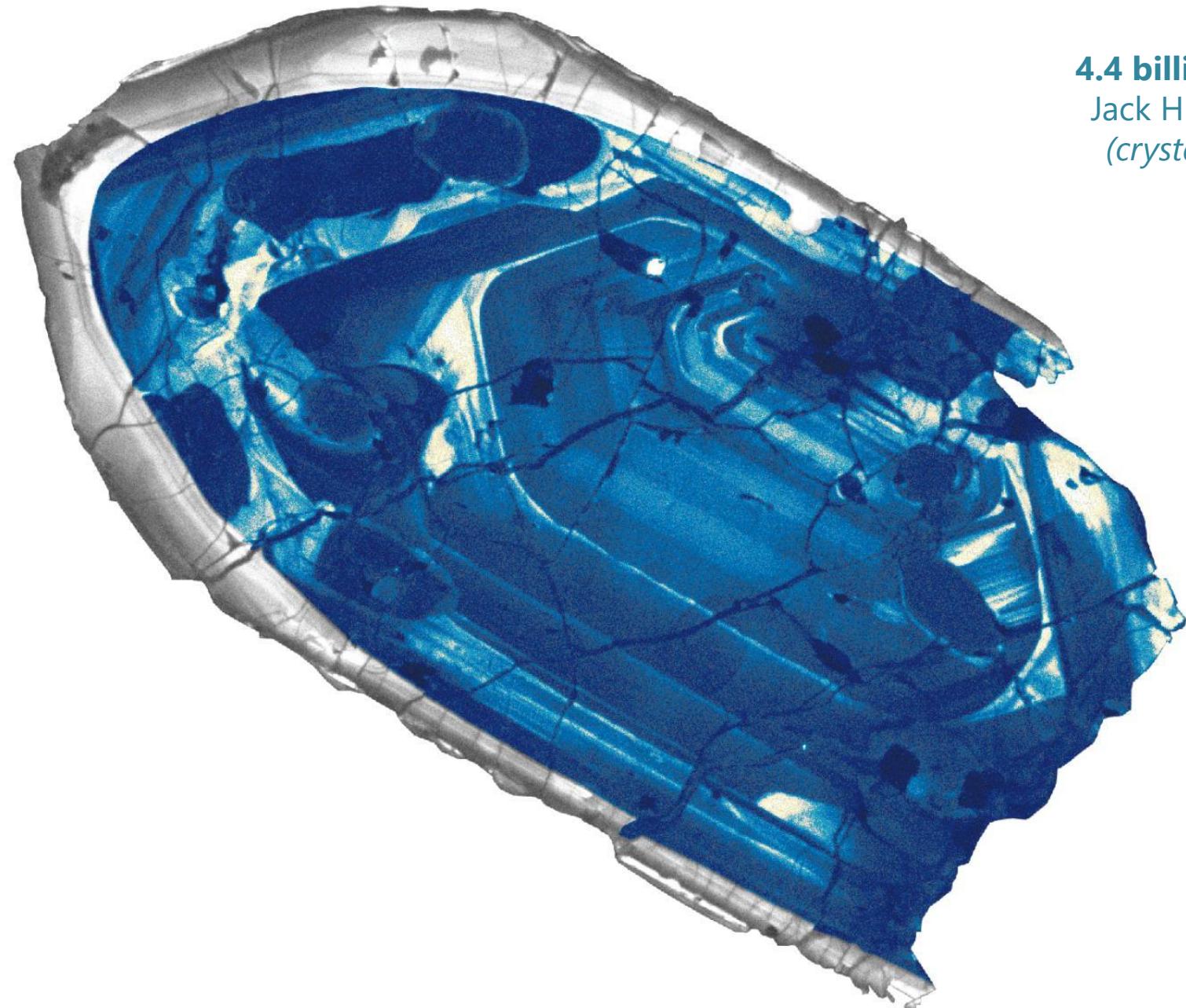




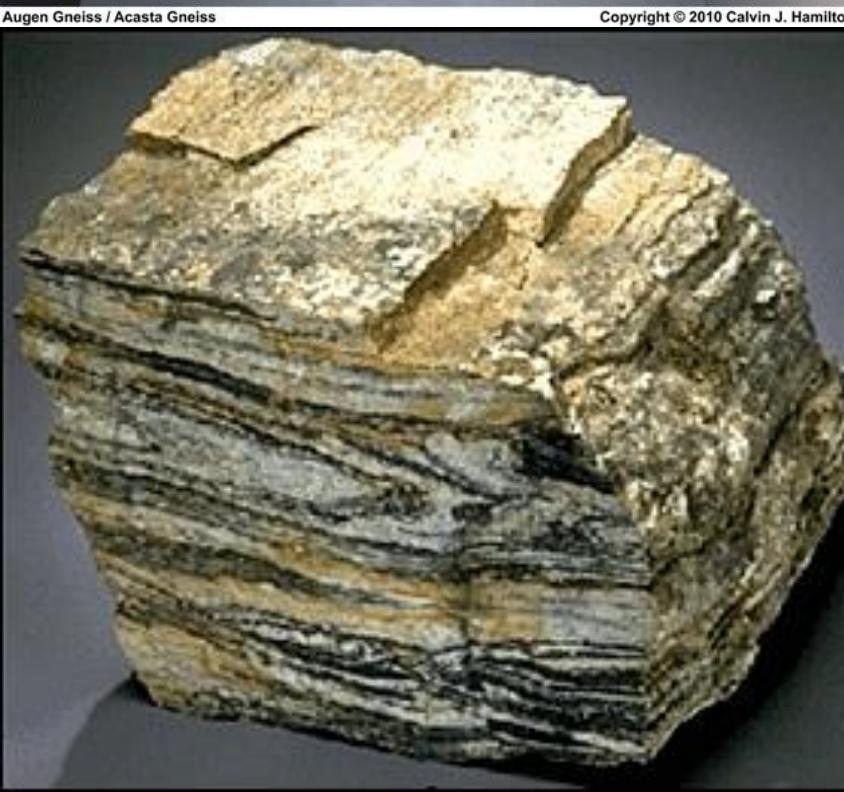
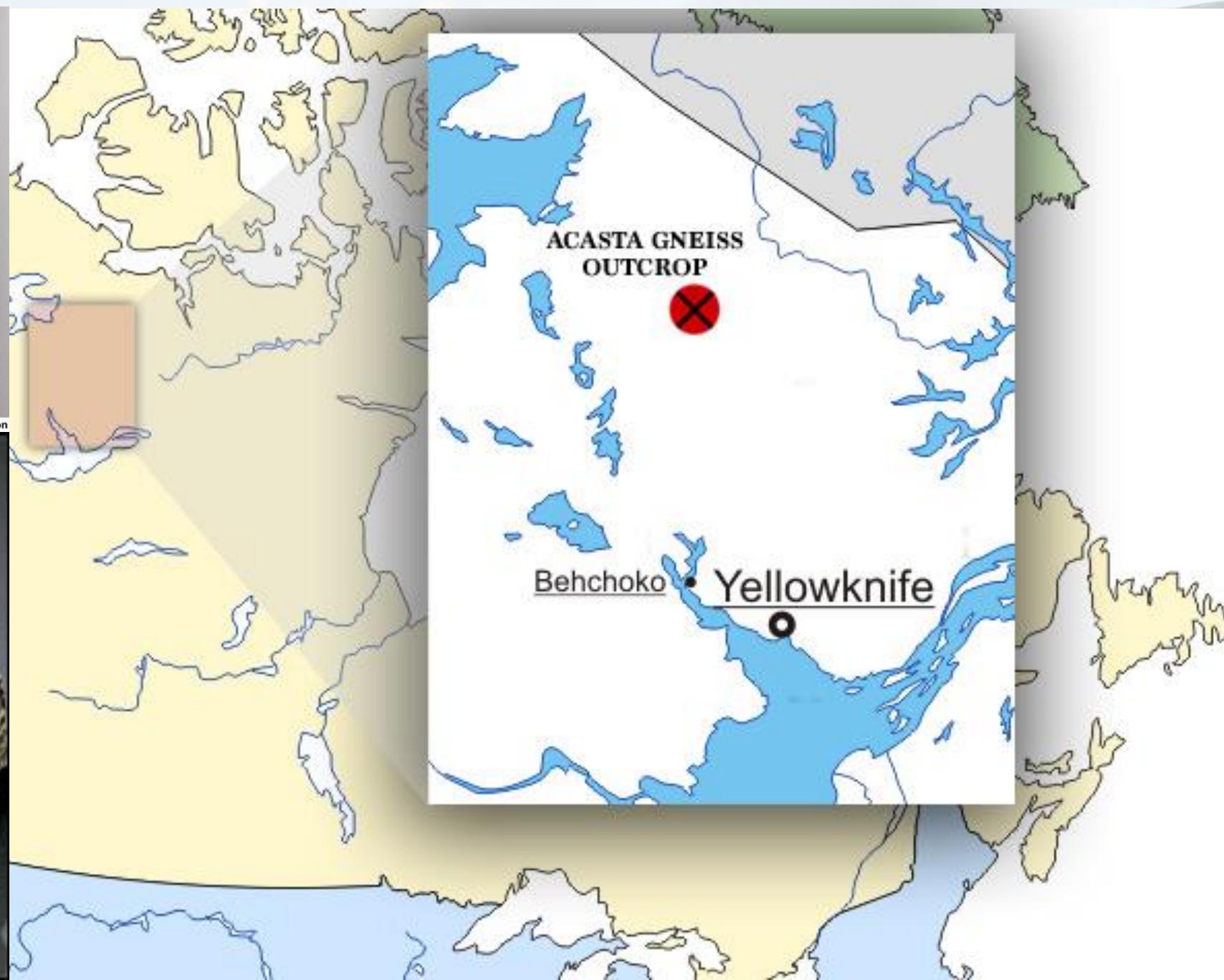


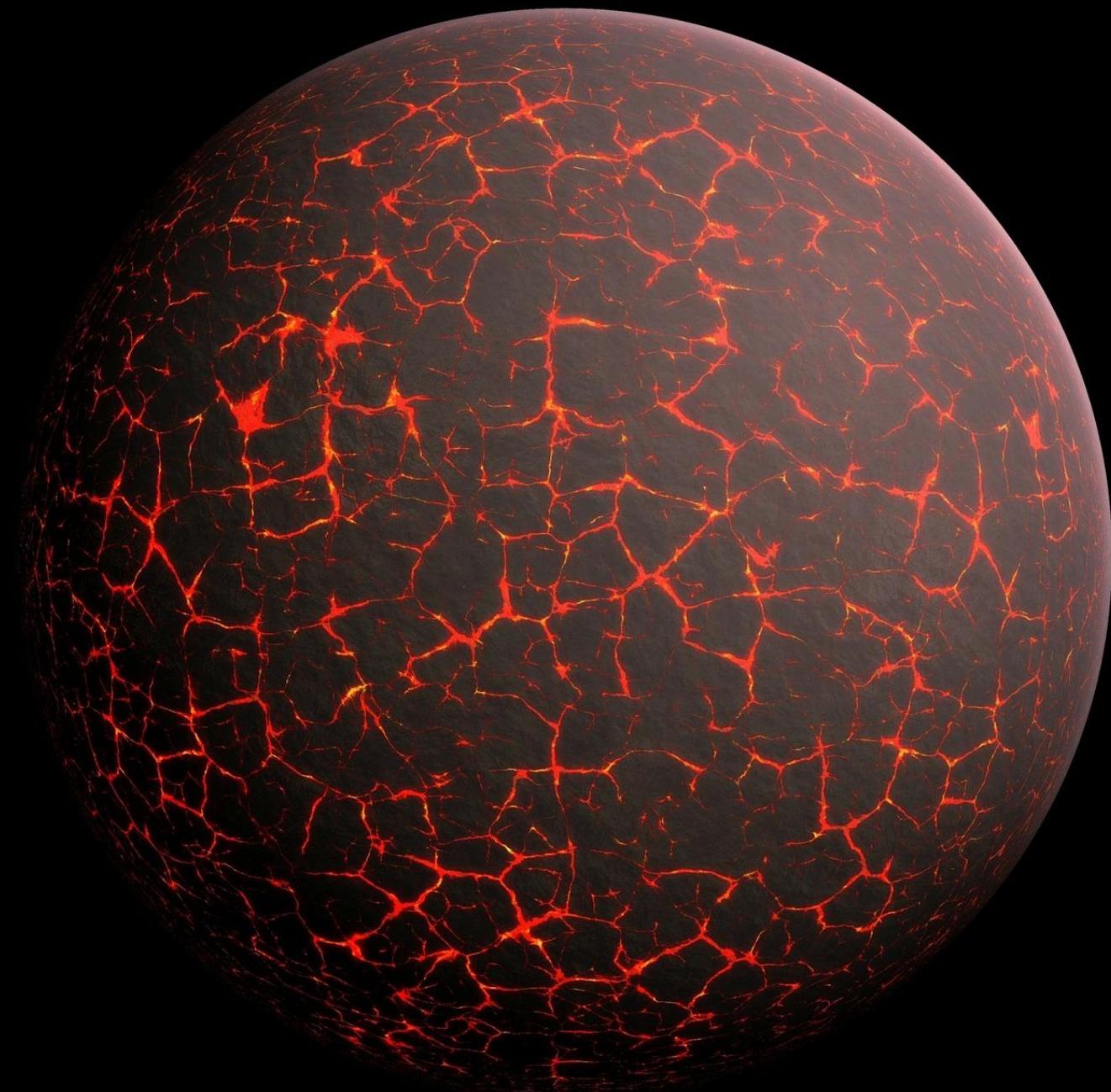


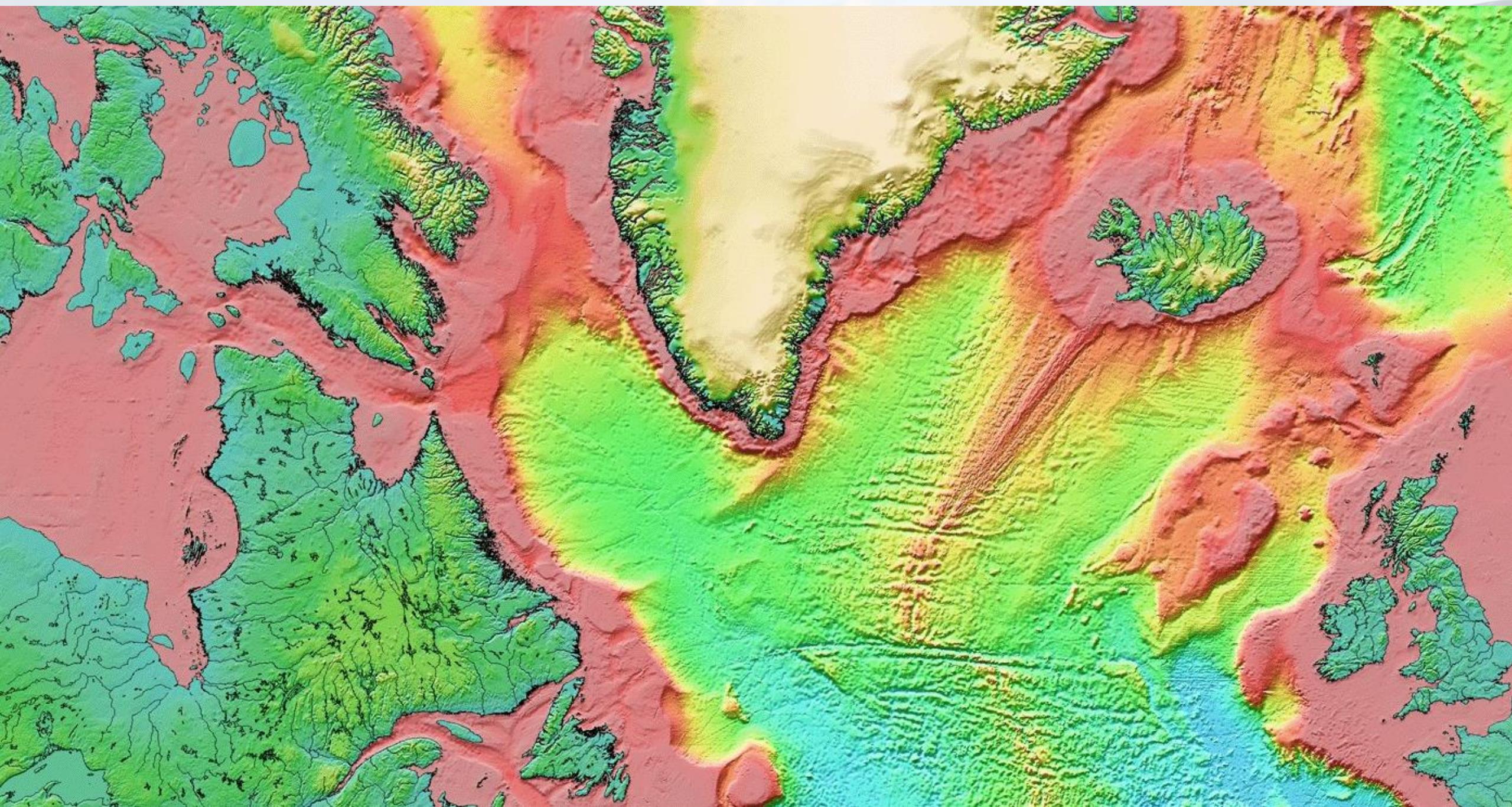


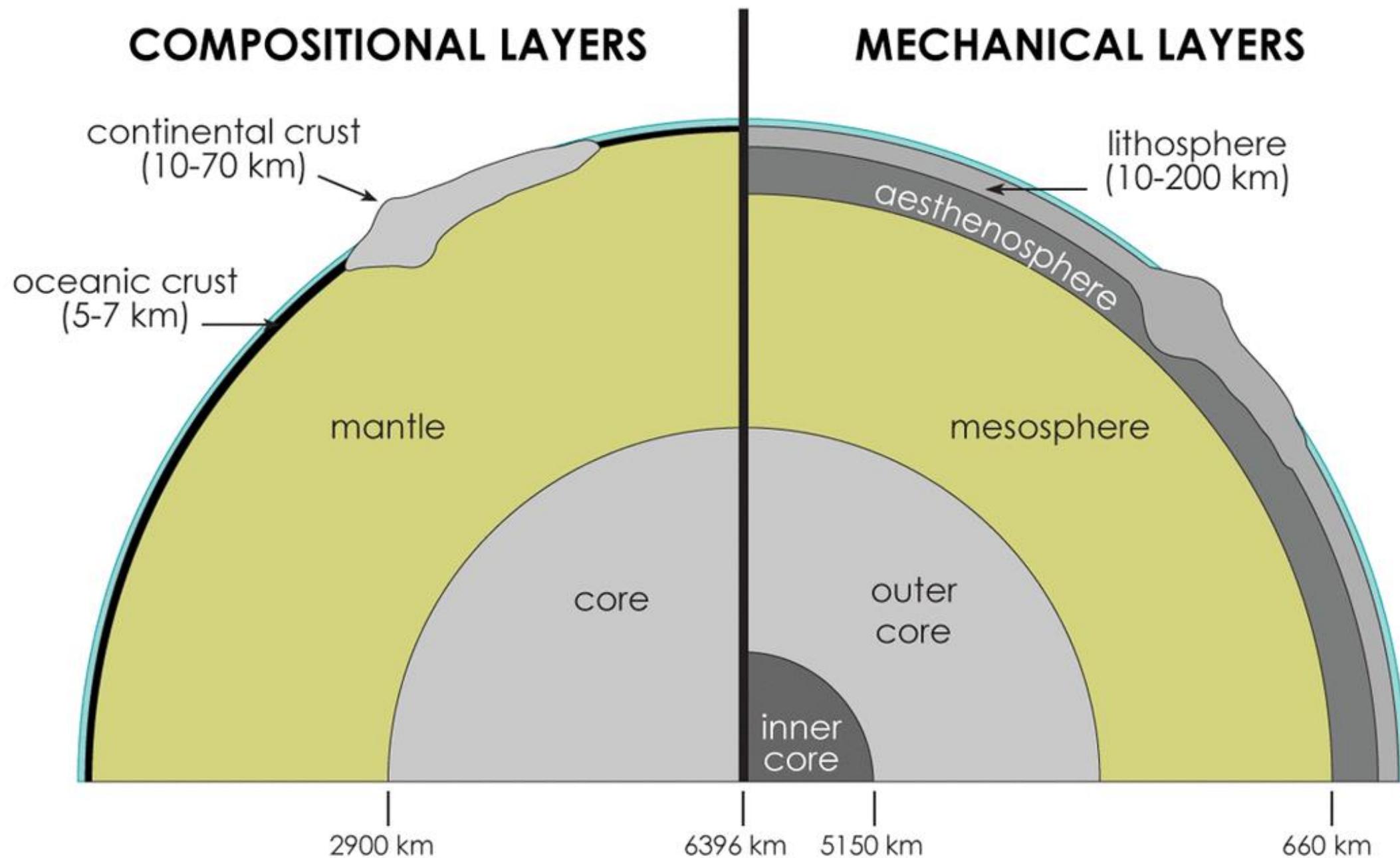


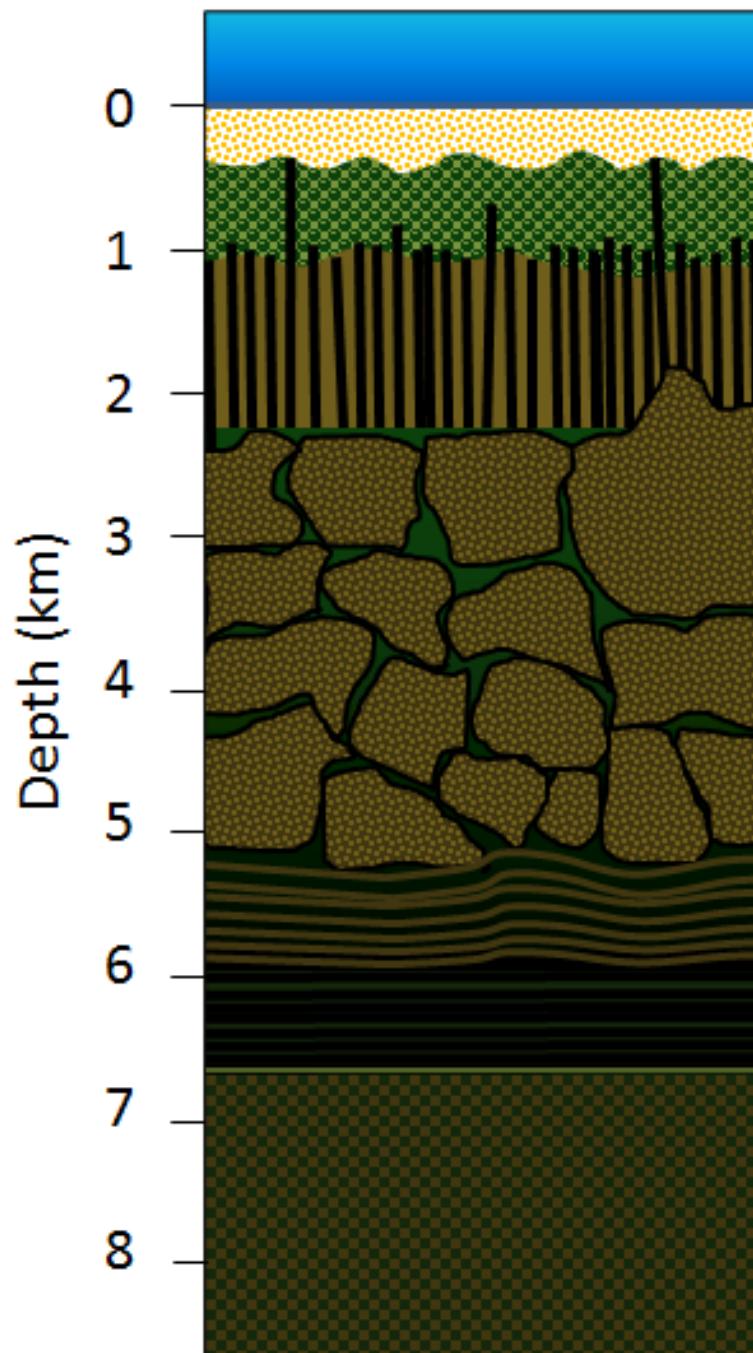
4.4 billion years old
Jack Hills, Australia
(crystal of zircon)









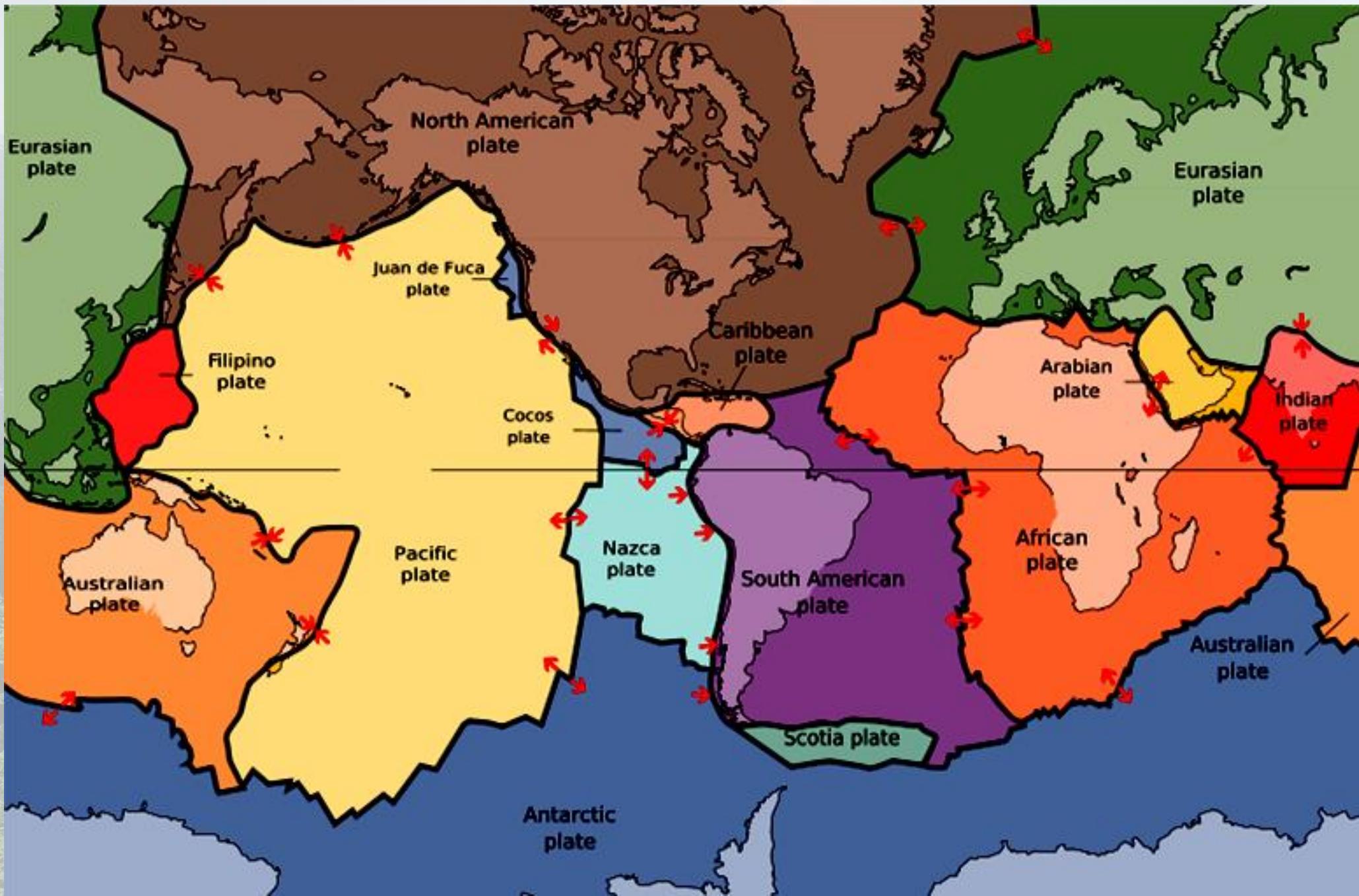


Sediments
Pillows, breccias & flows
Sheeted dykes
Gabbro bodies
Layered gabbro
Layered peridotite
Upper mantle

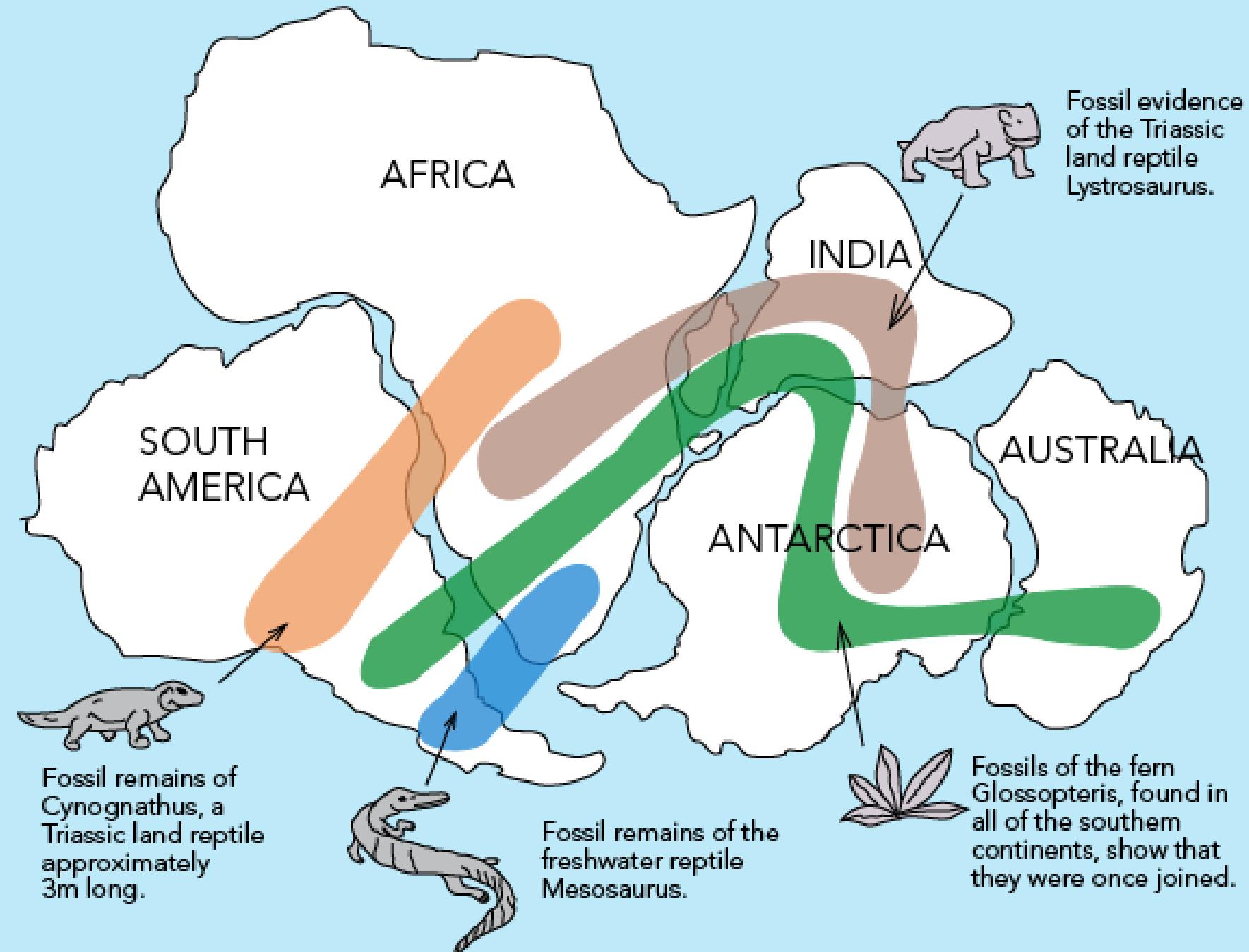
Oceanic Crust ↑↓

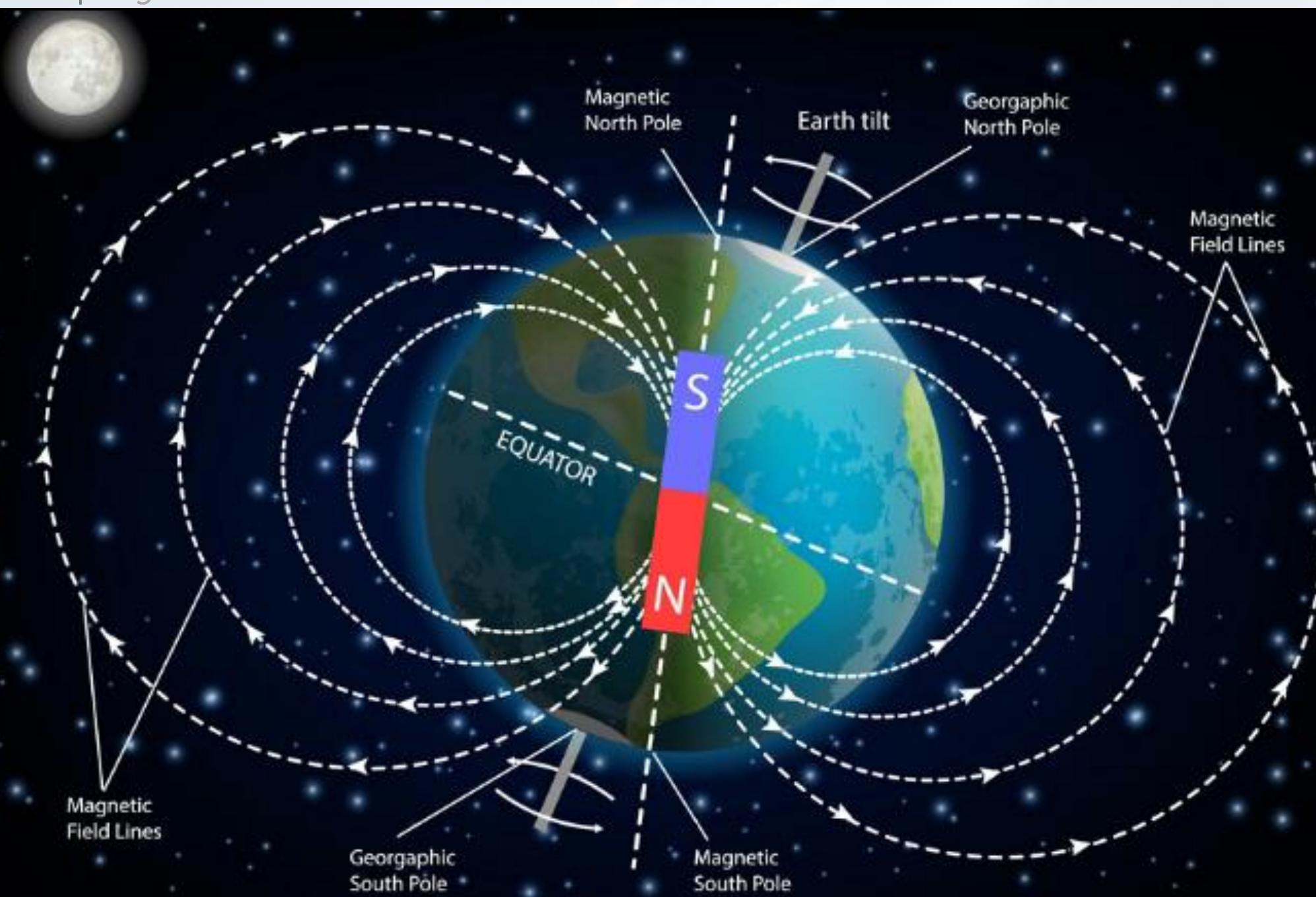


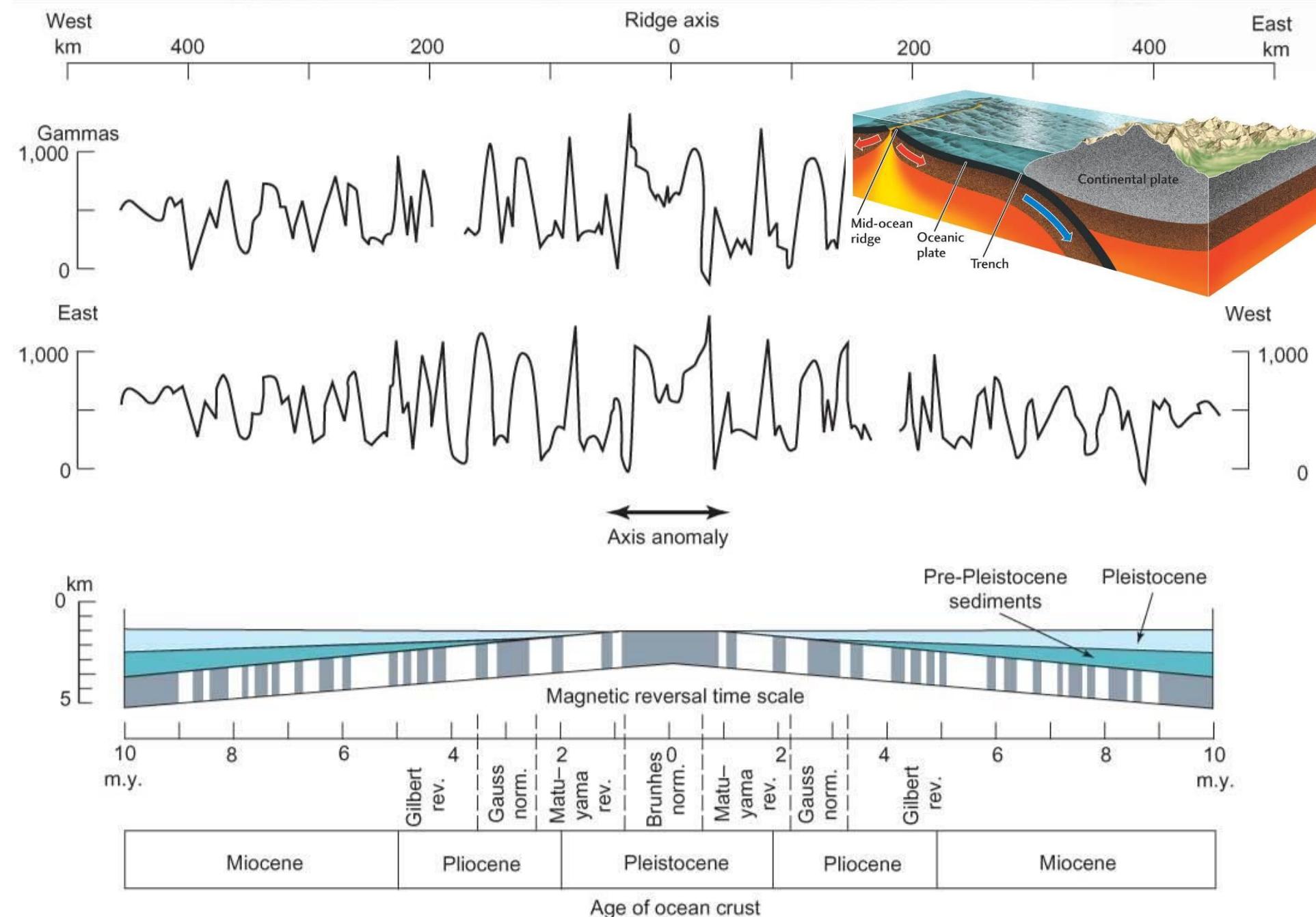


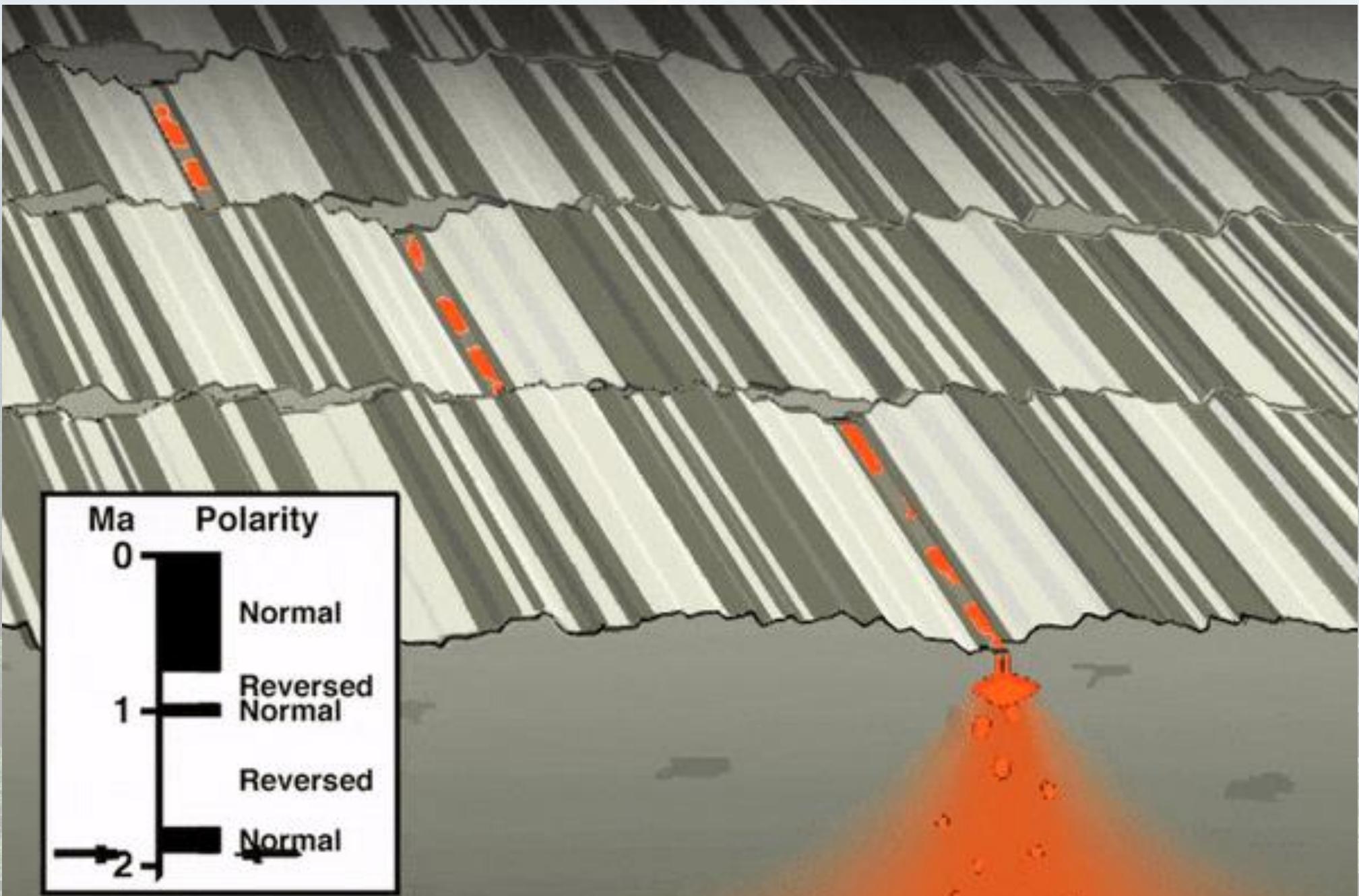


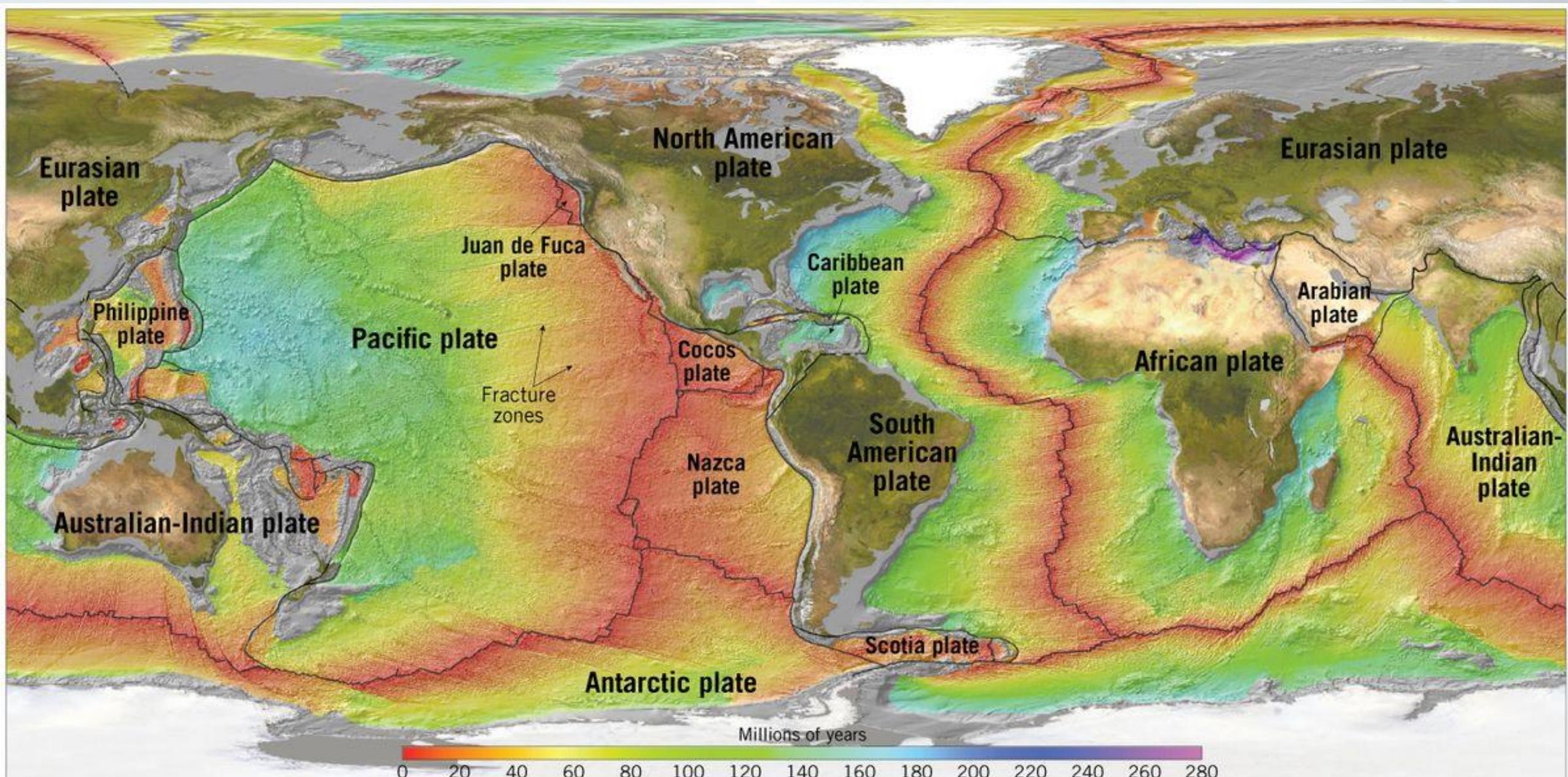


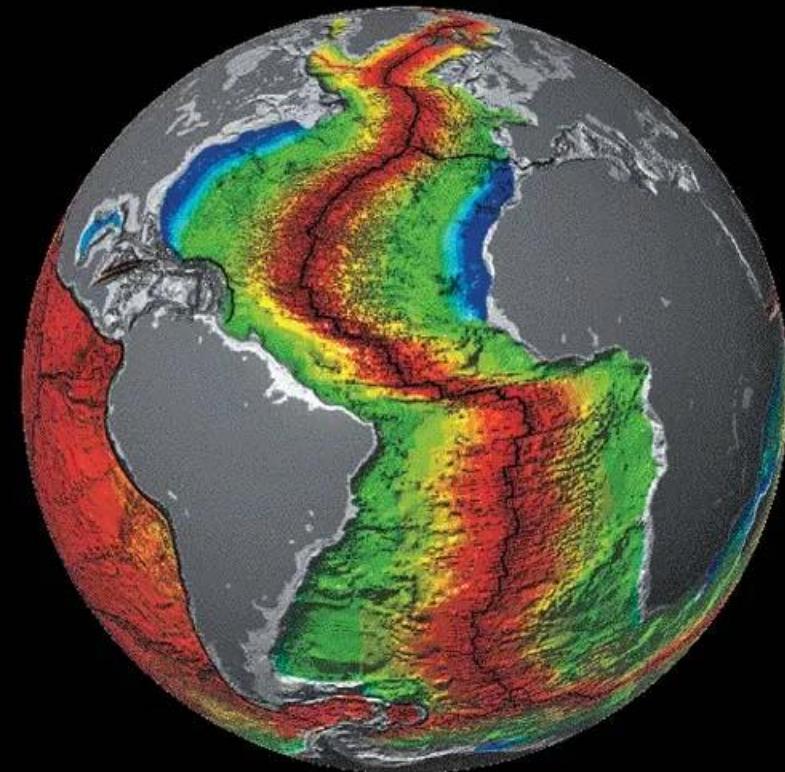
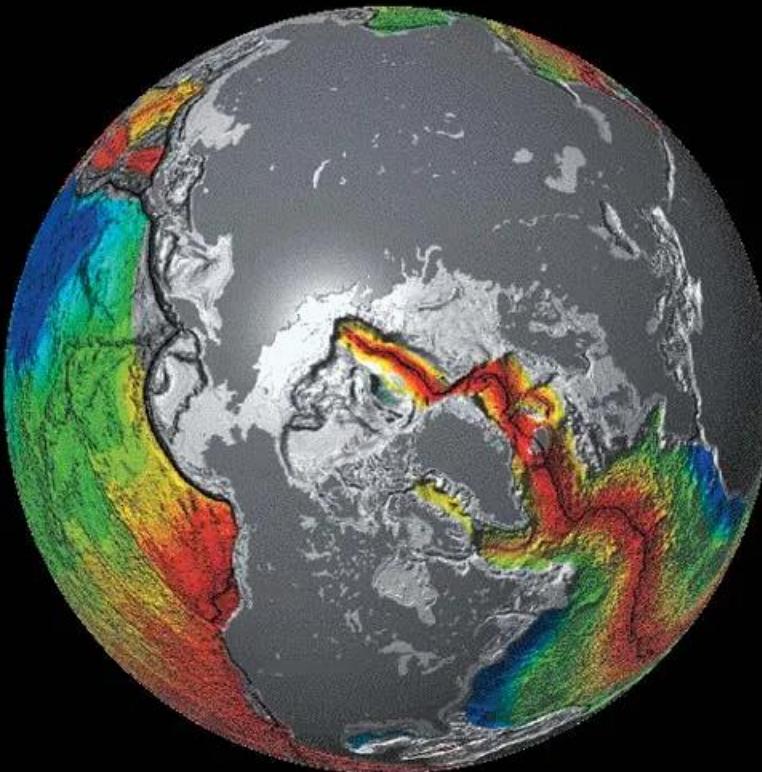
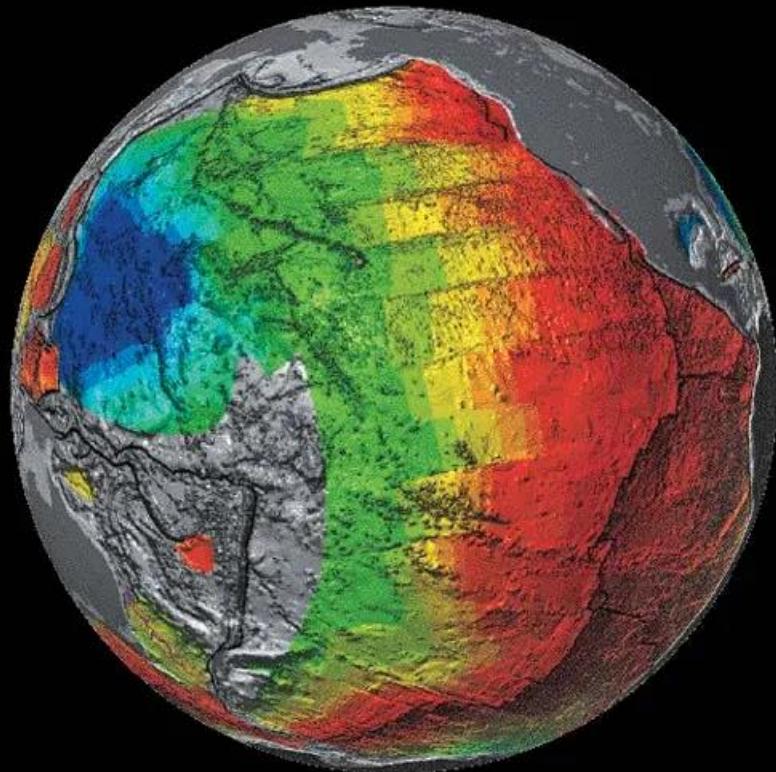


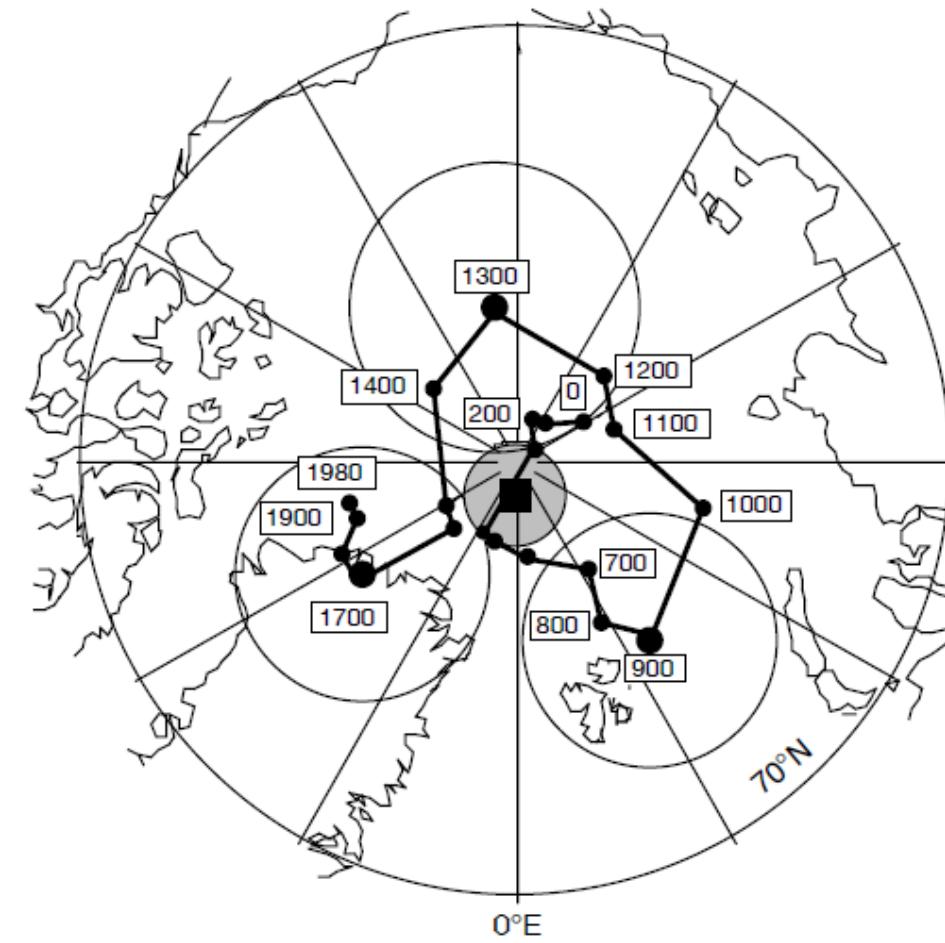
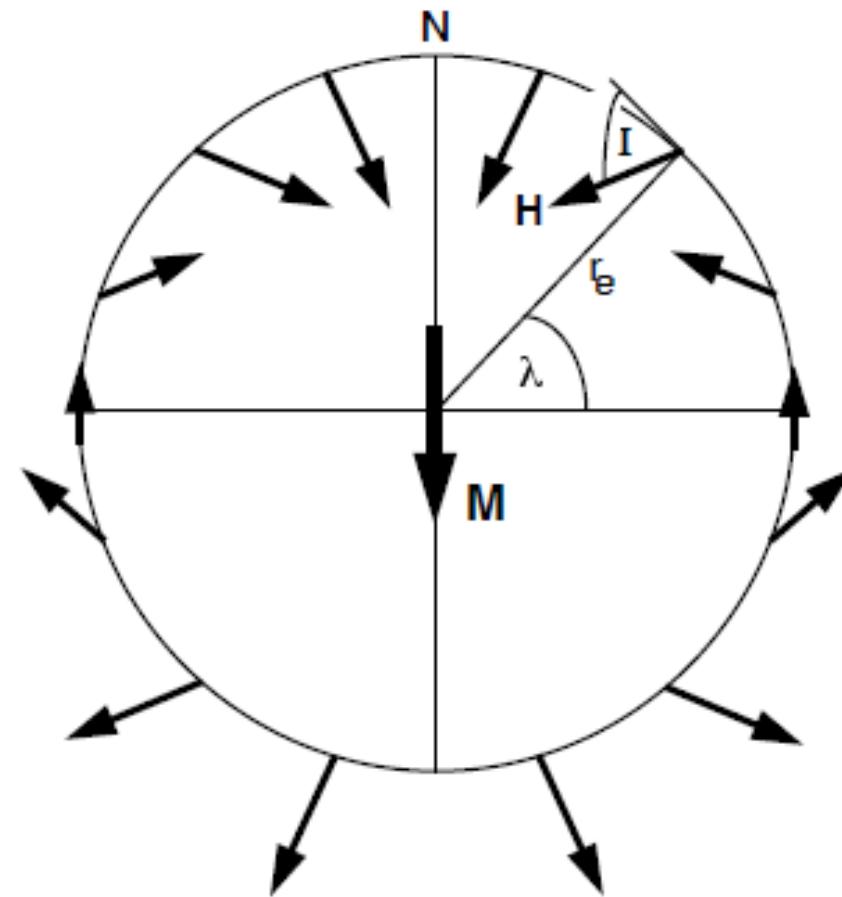


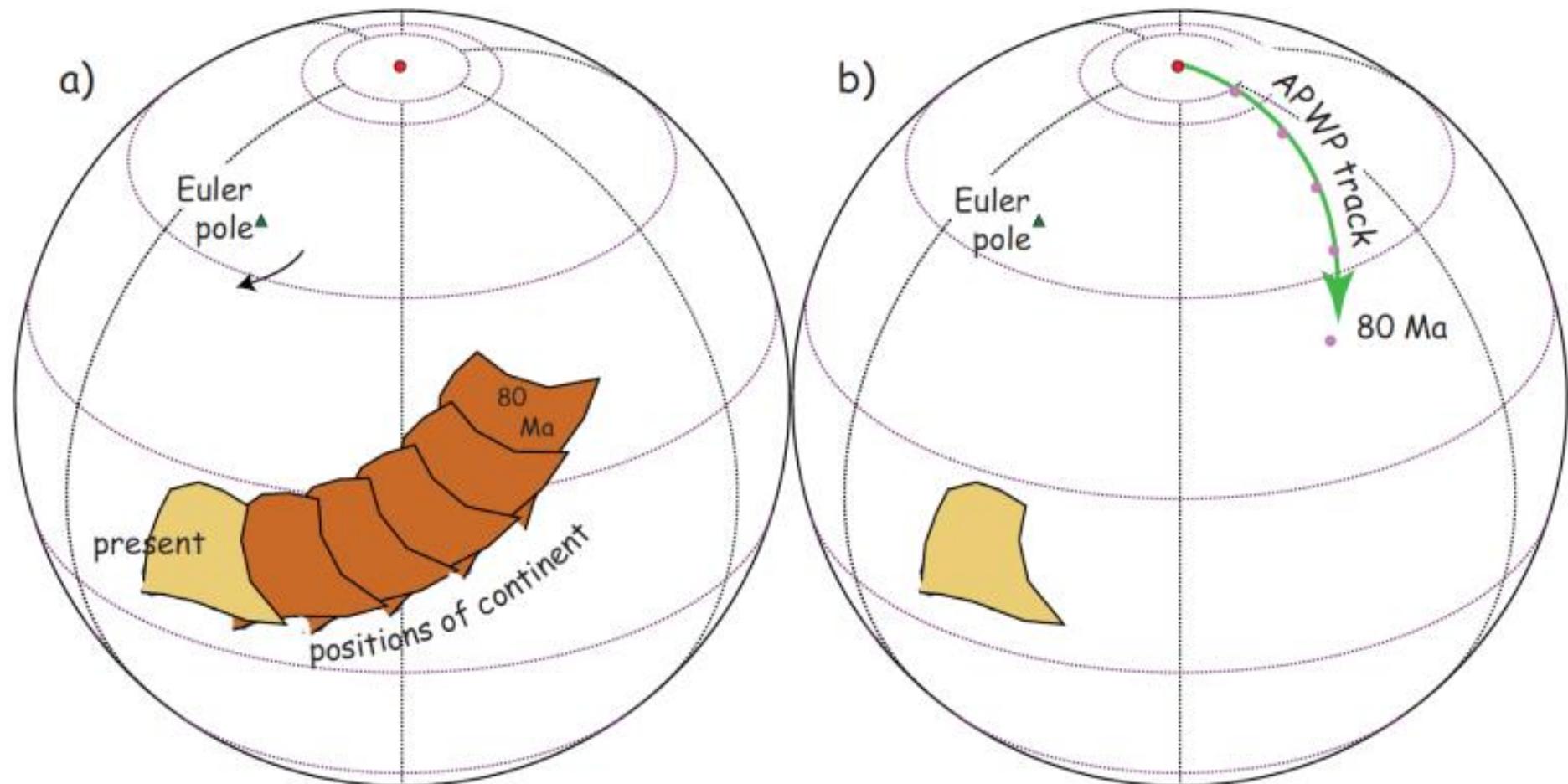














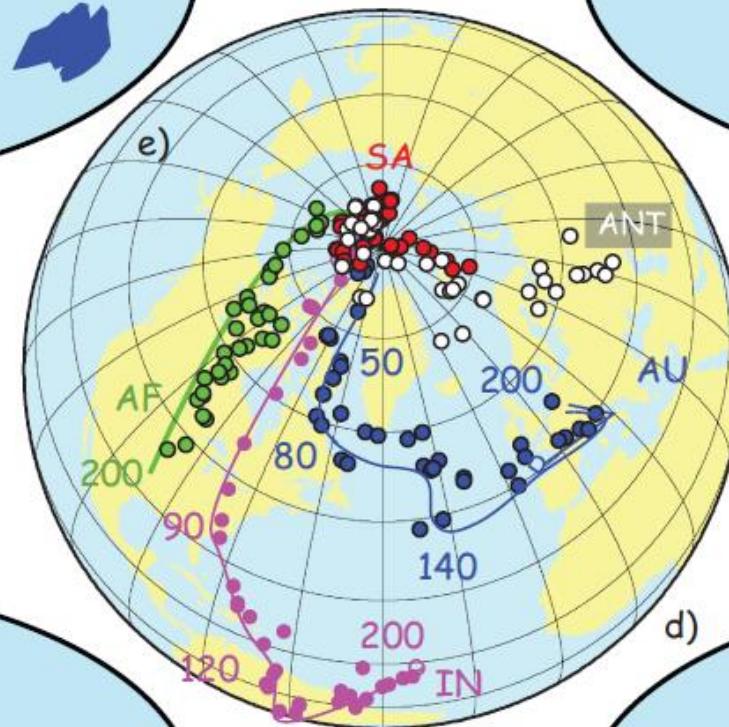
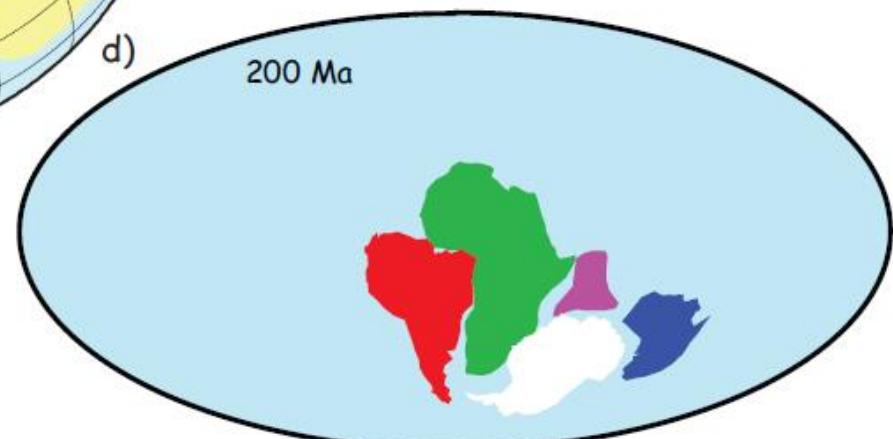
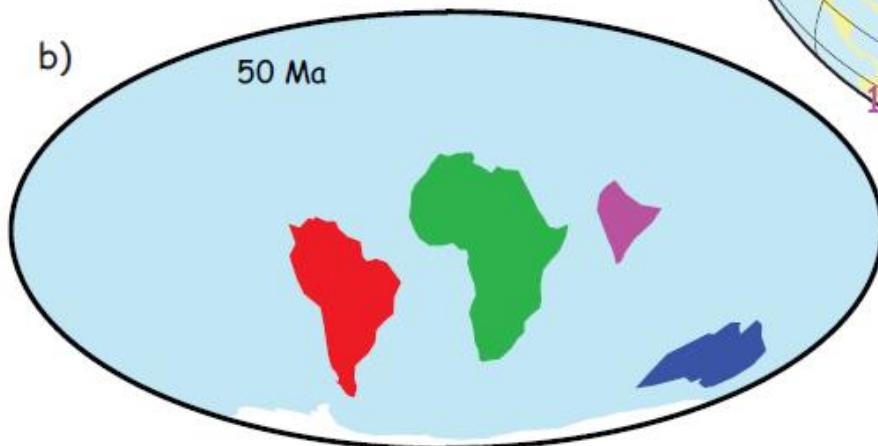
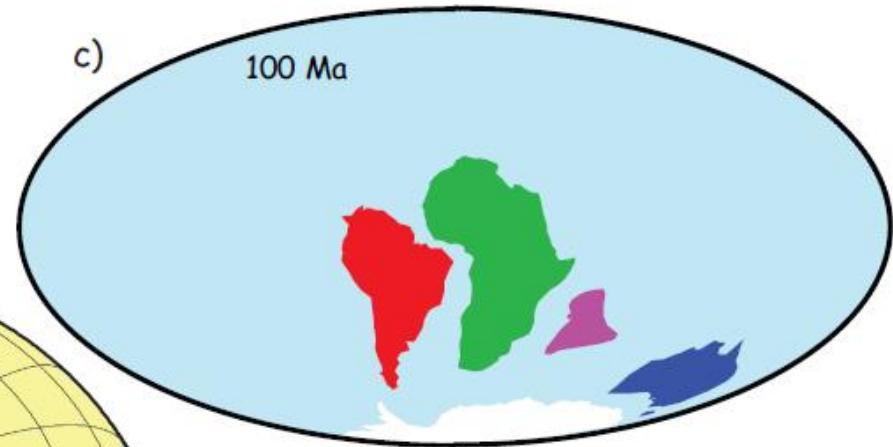
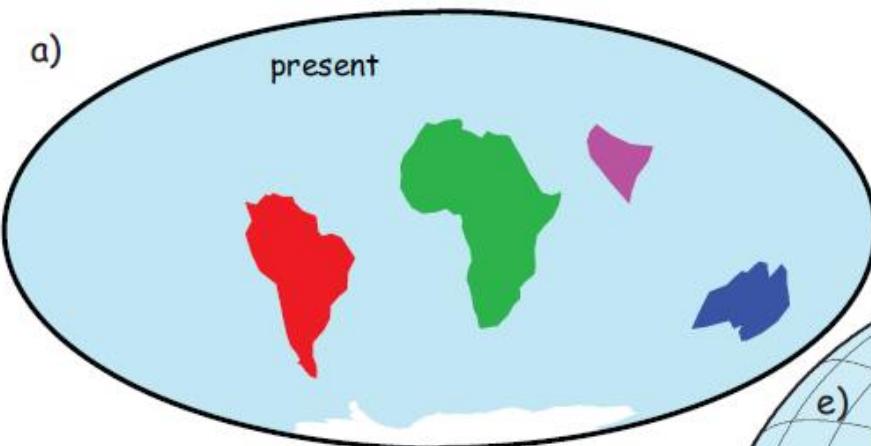
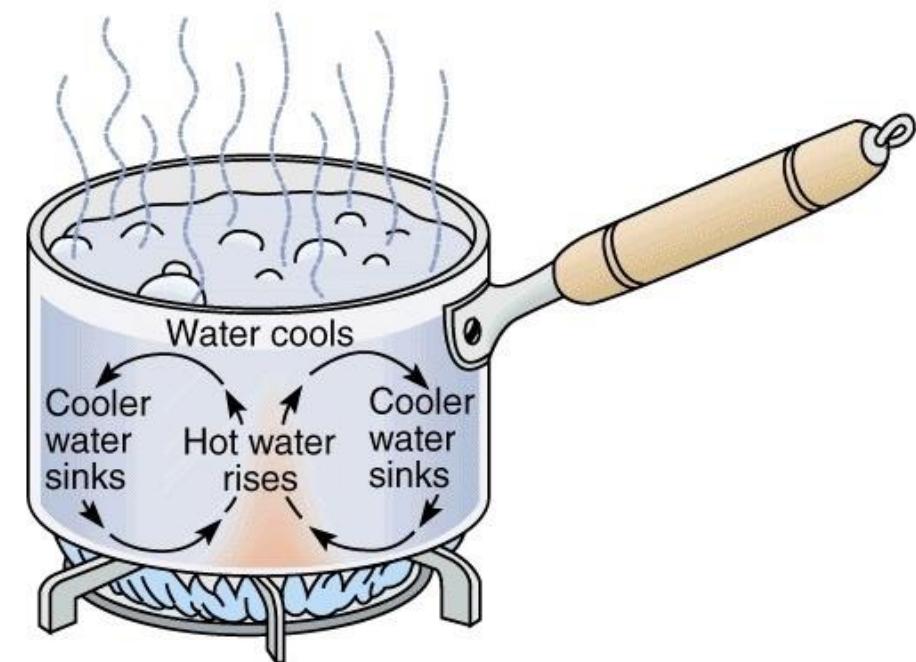
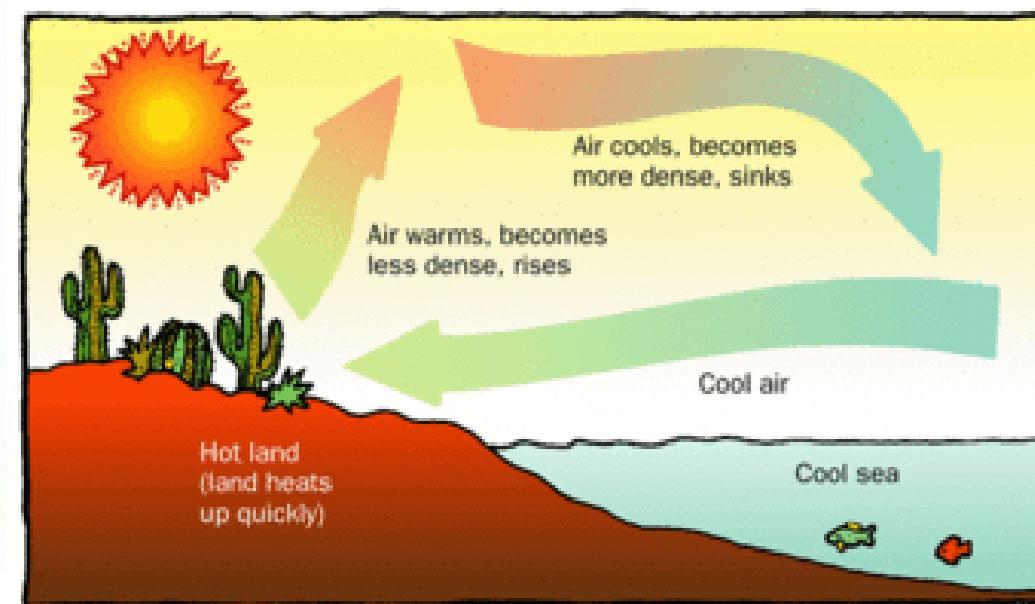
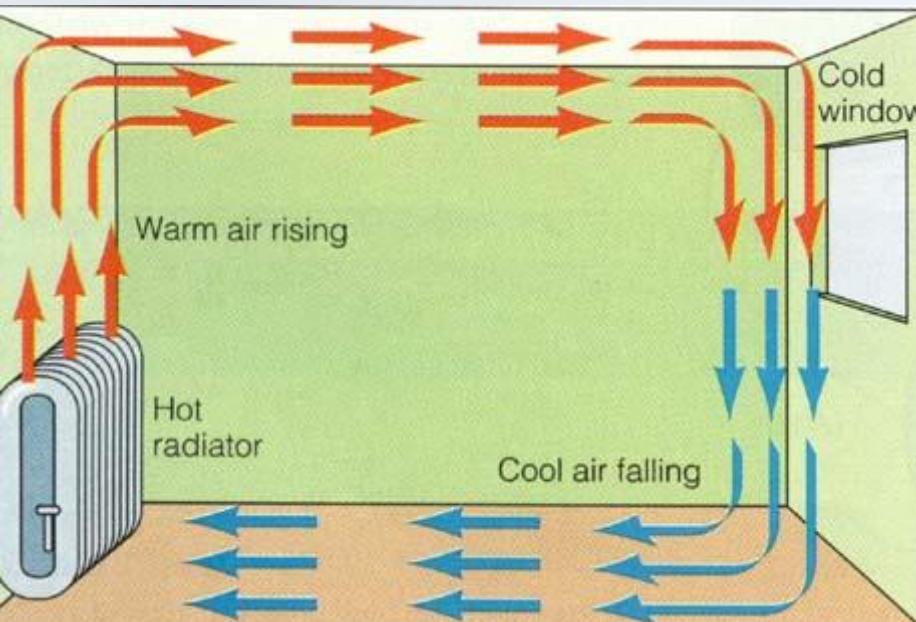
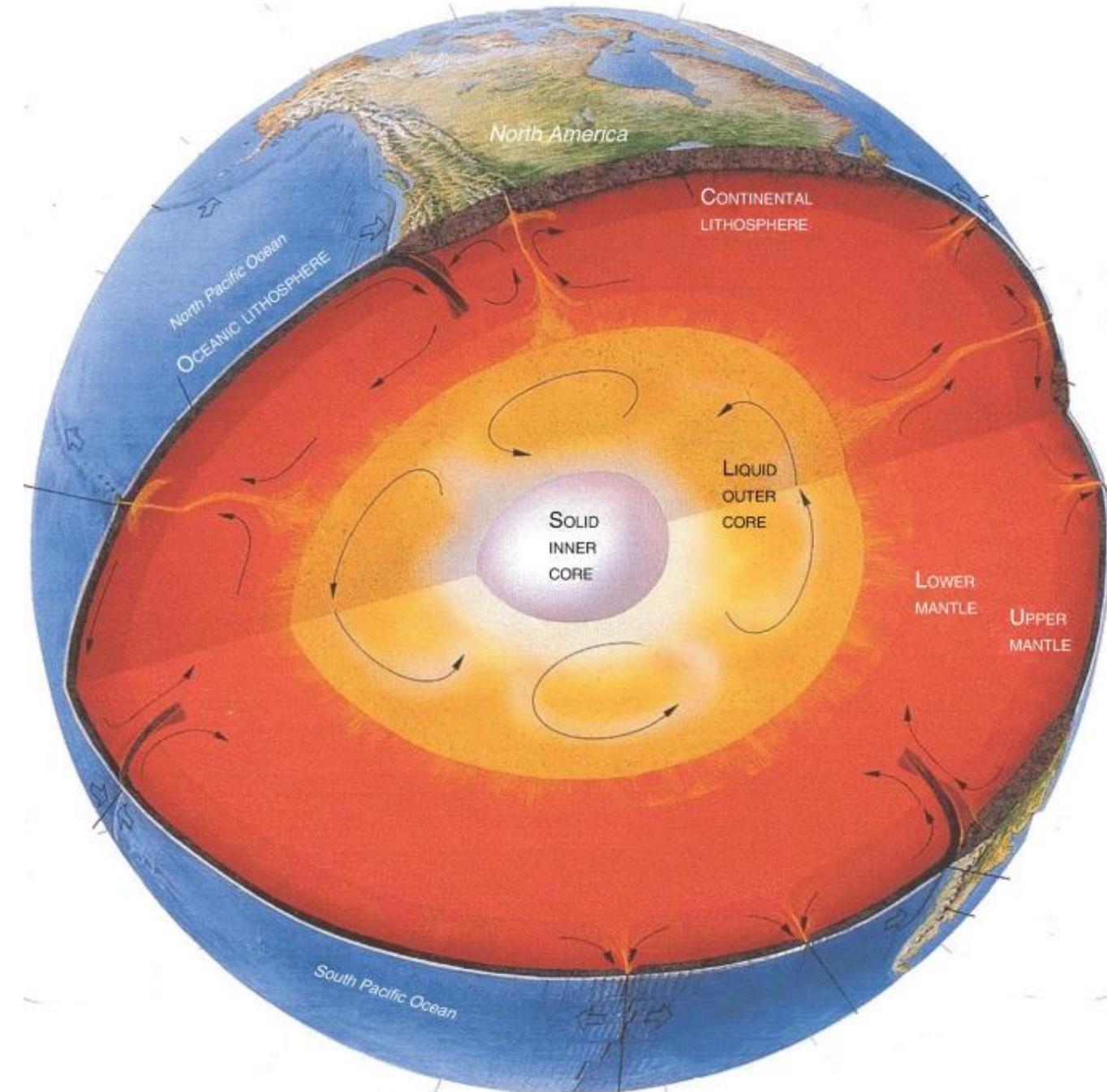


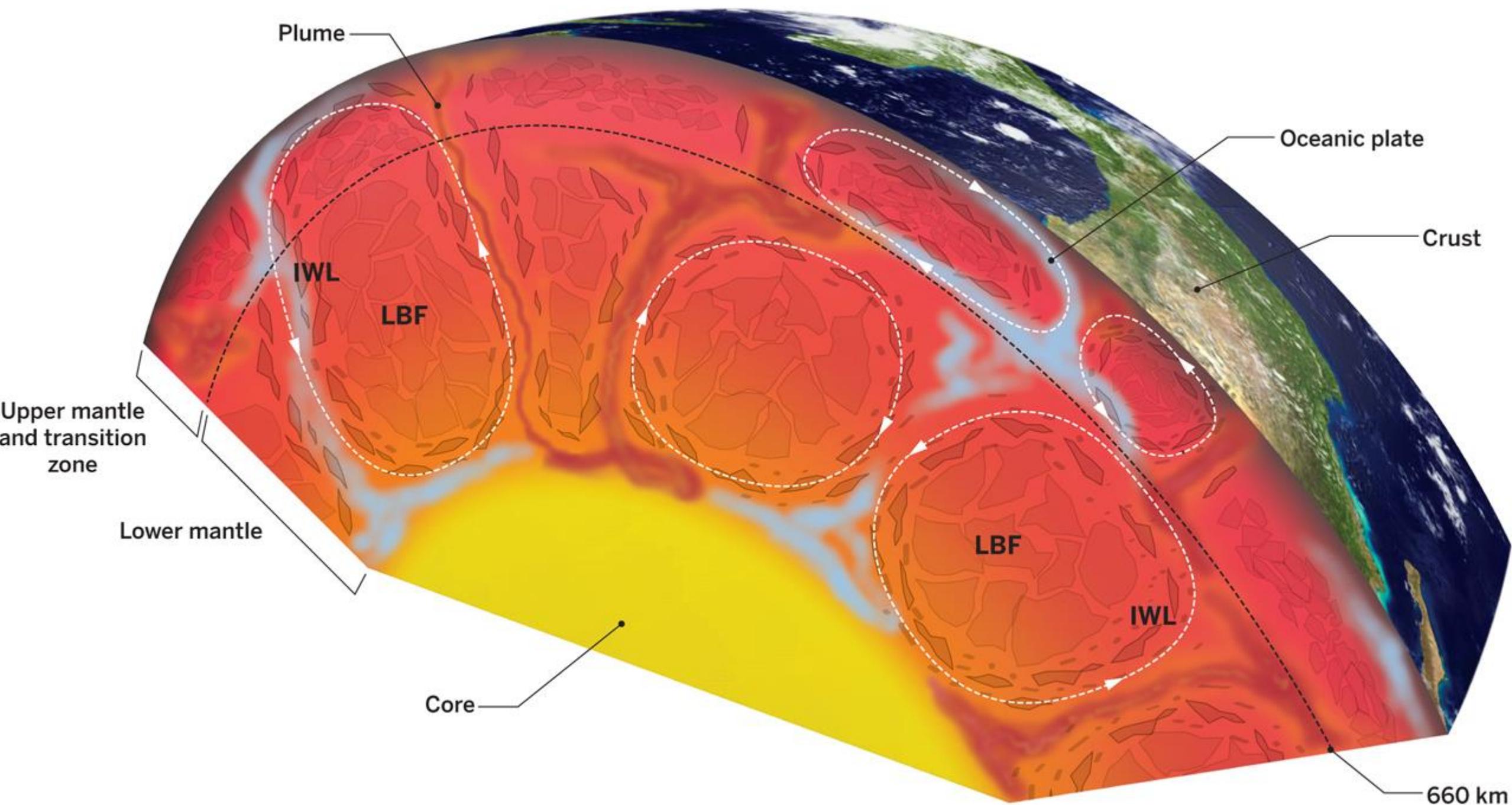


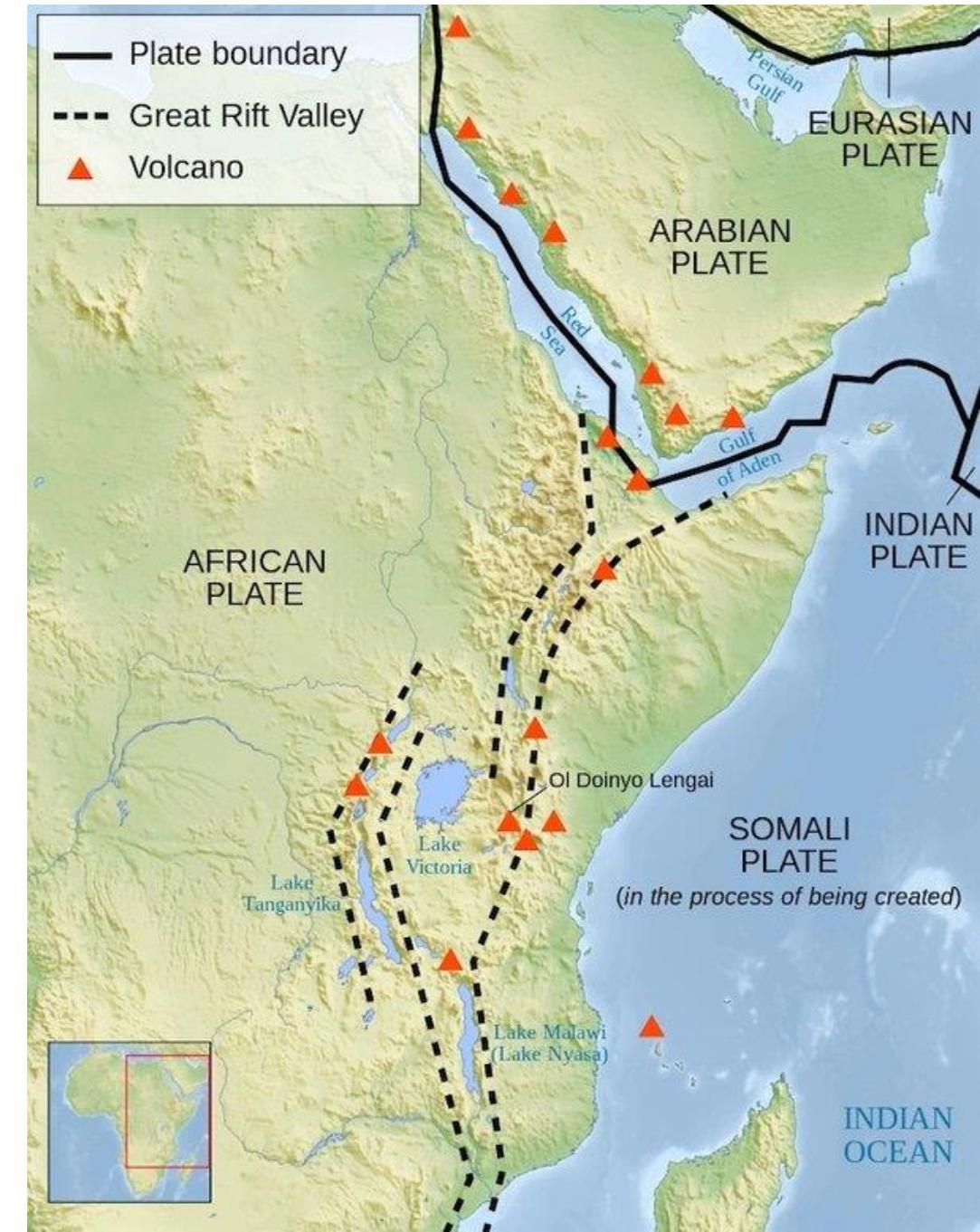
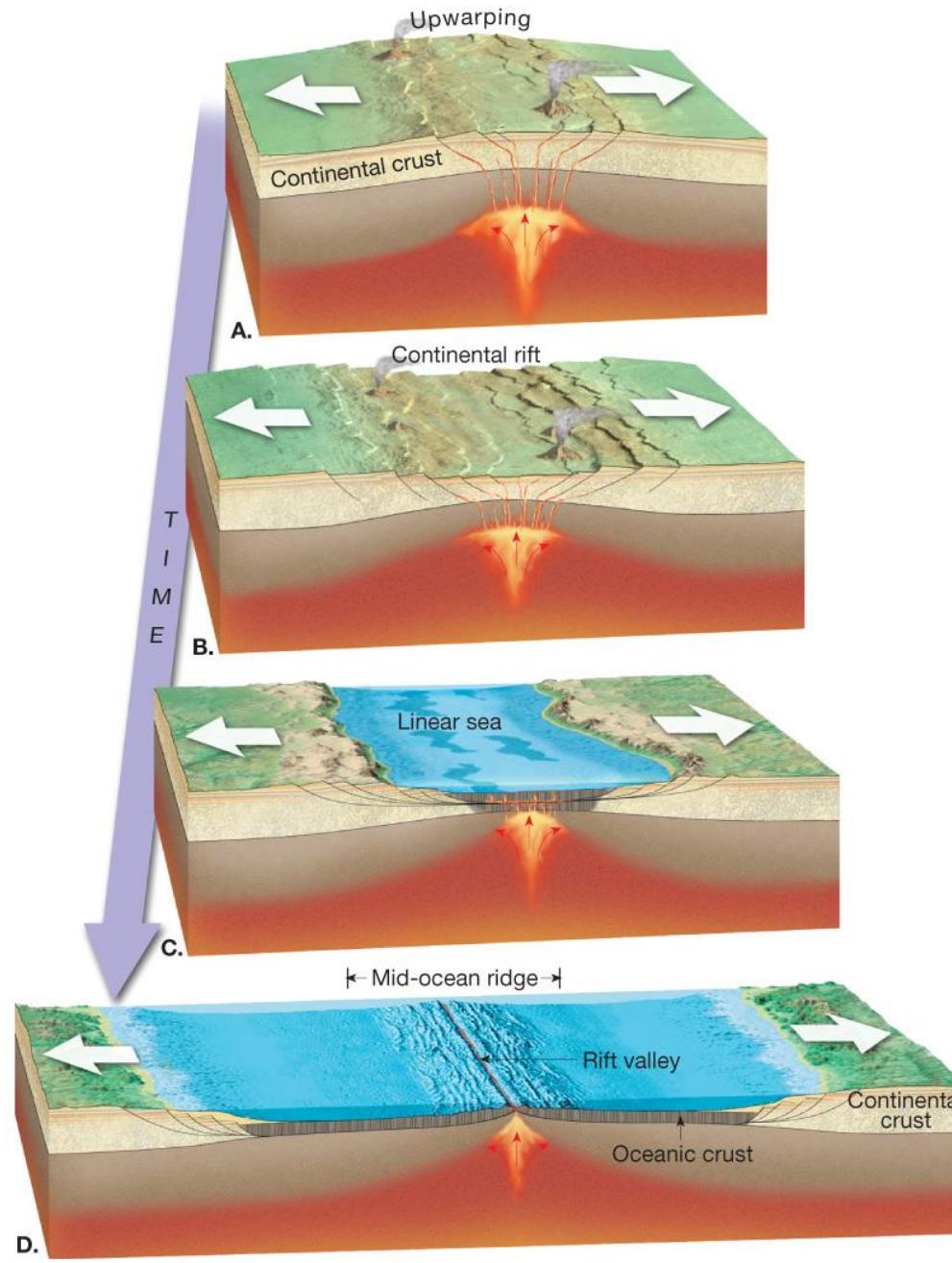
Plate Tectonics | Convection

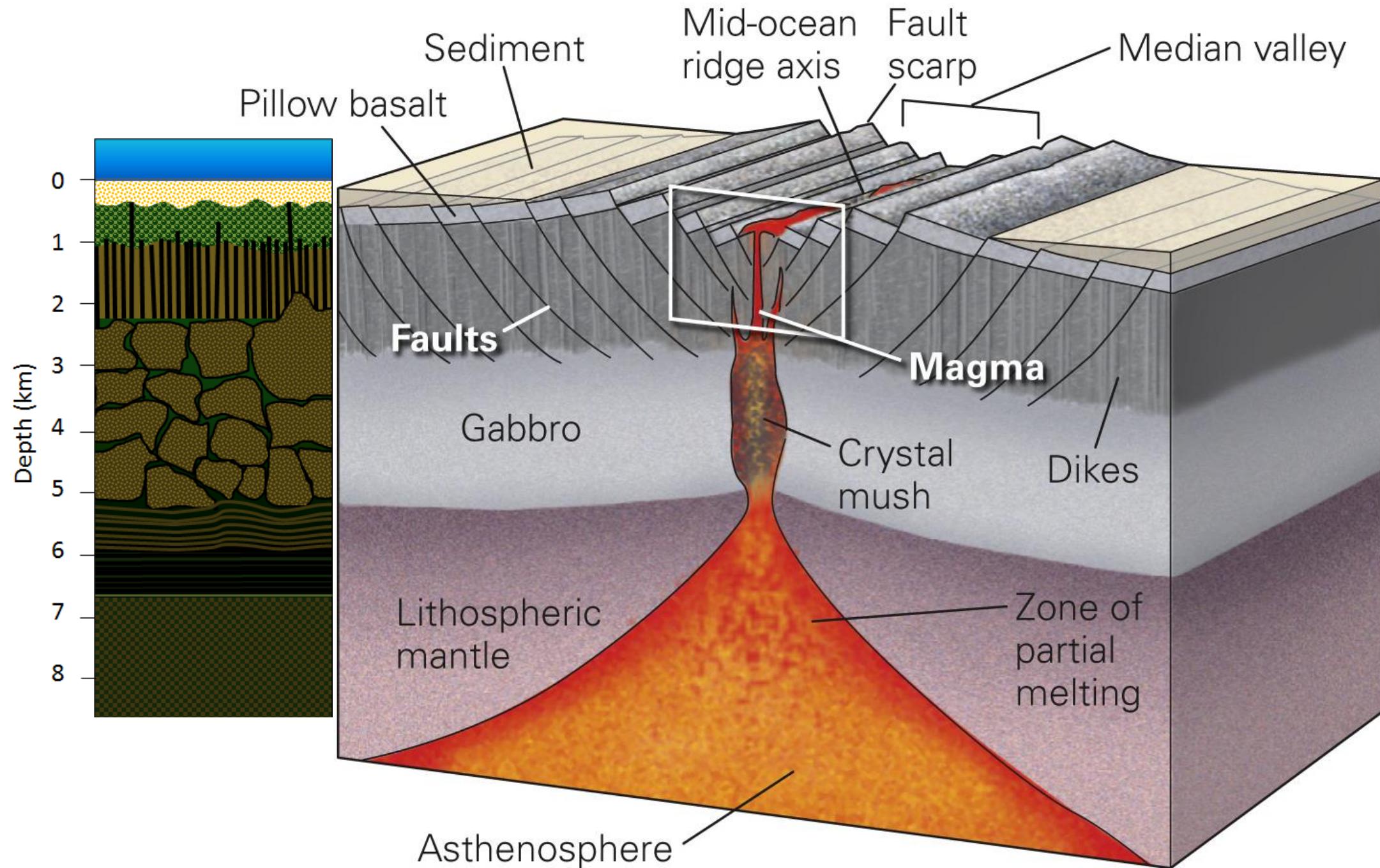
GY4051

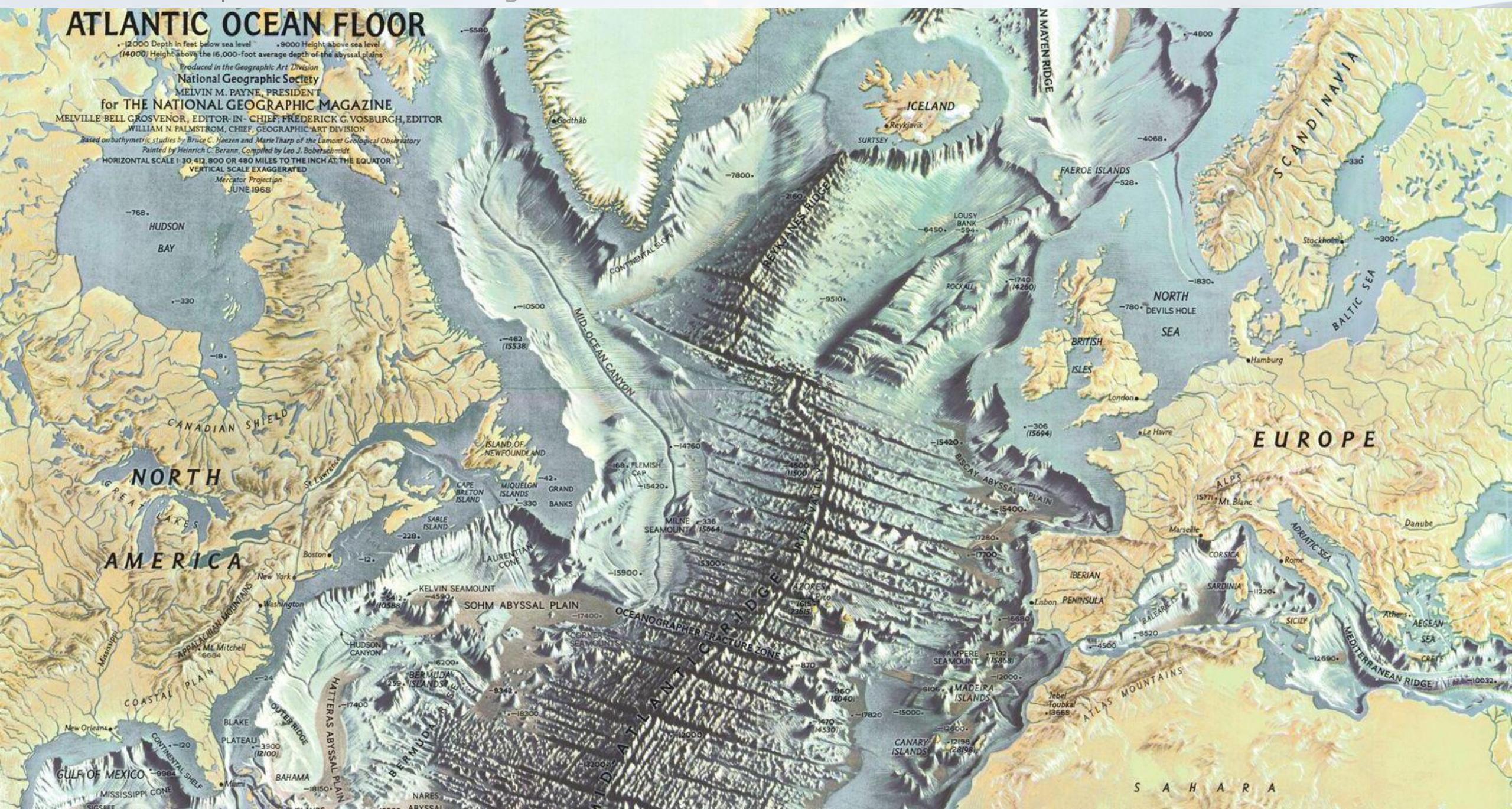


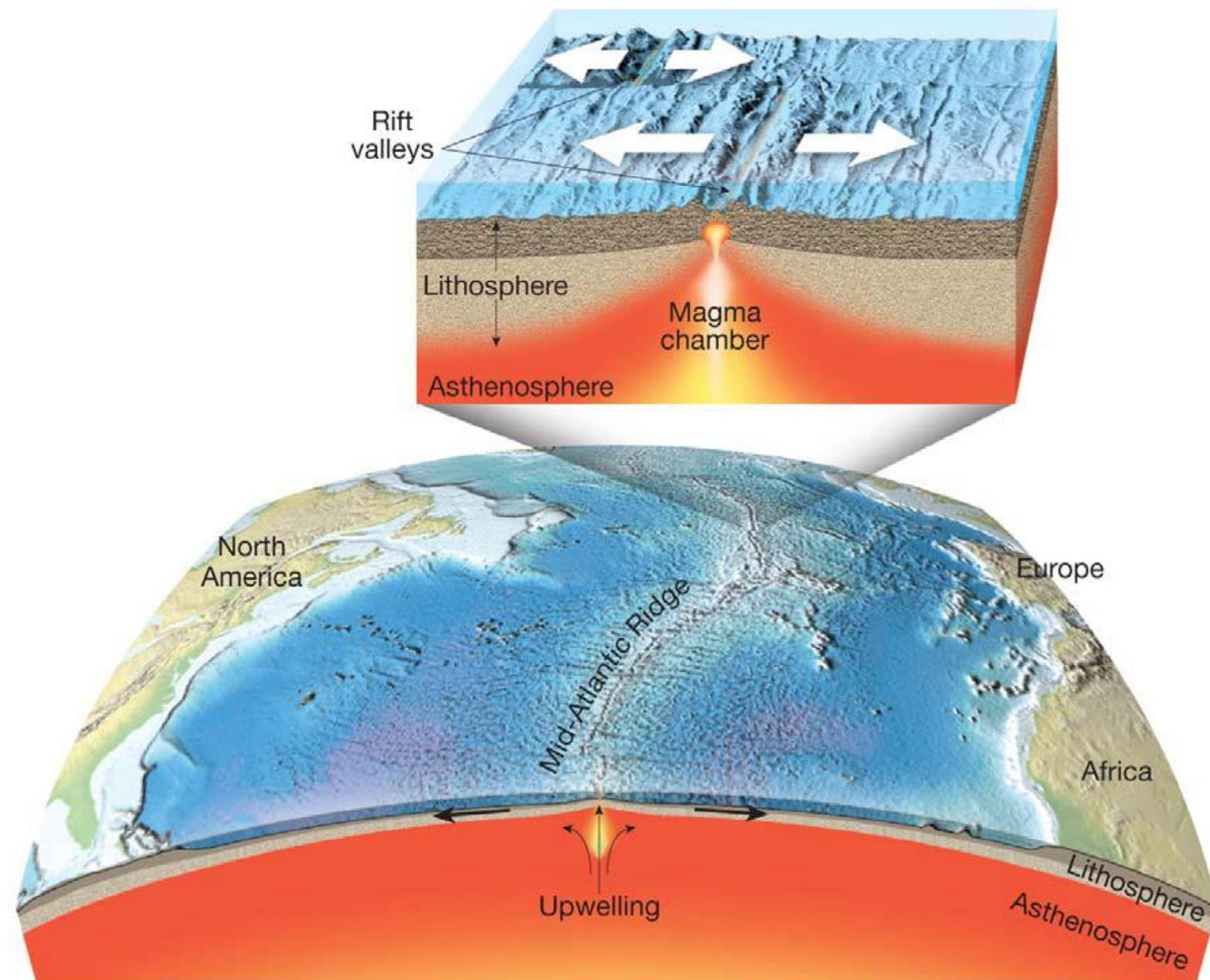


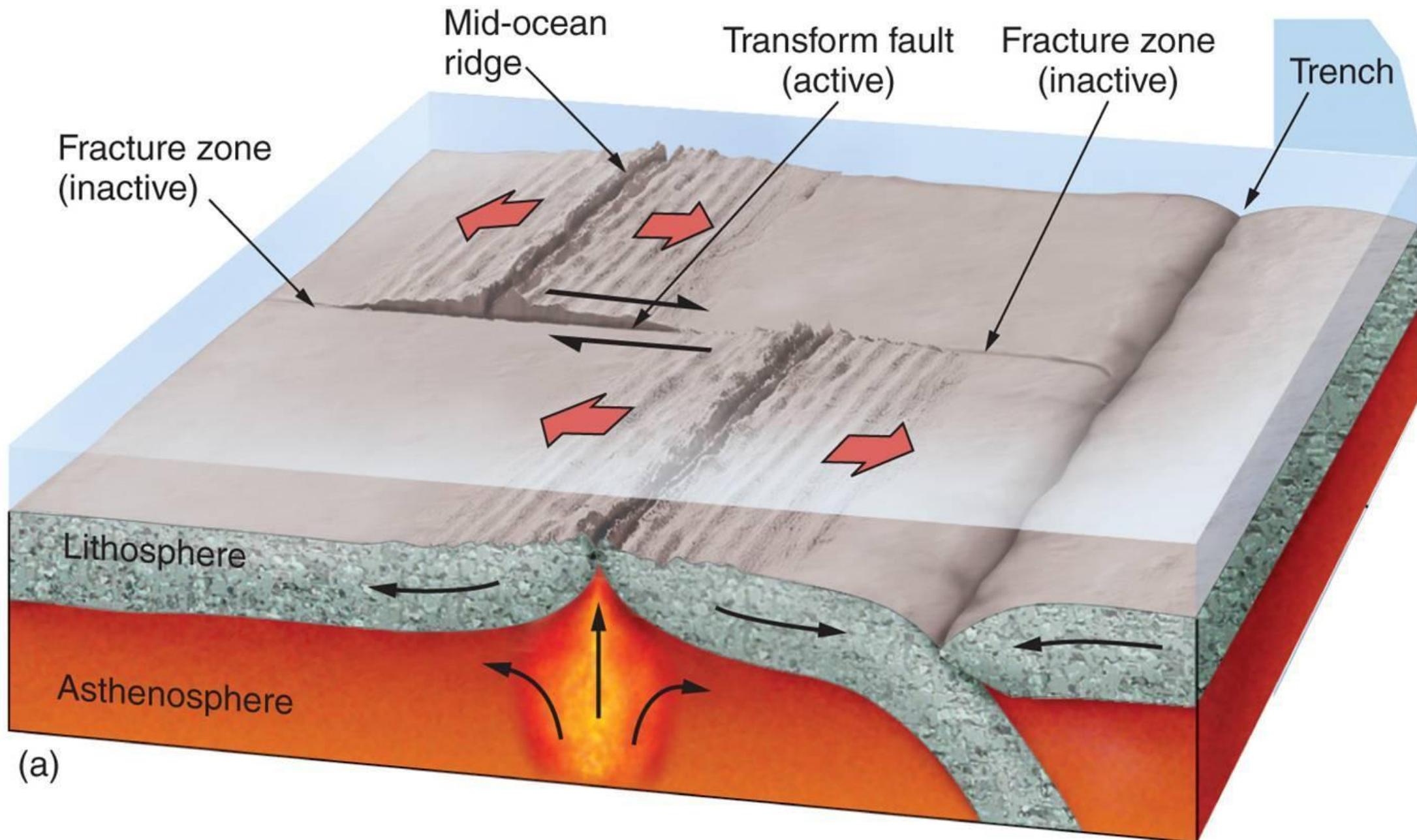




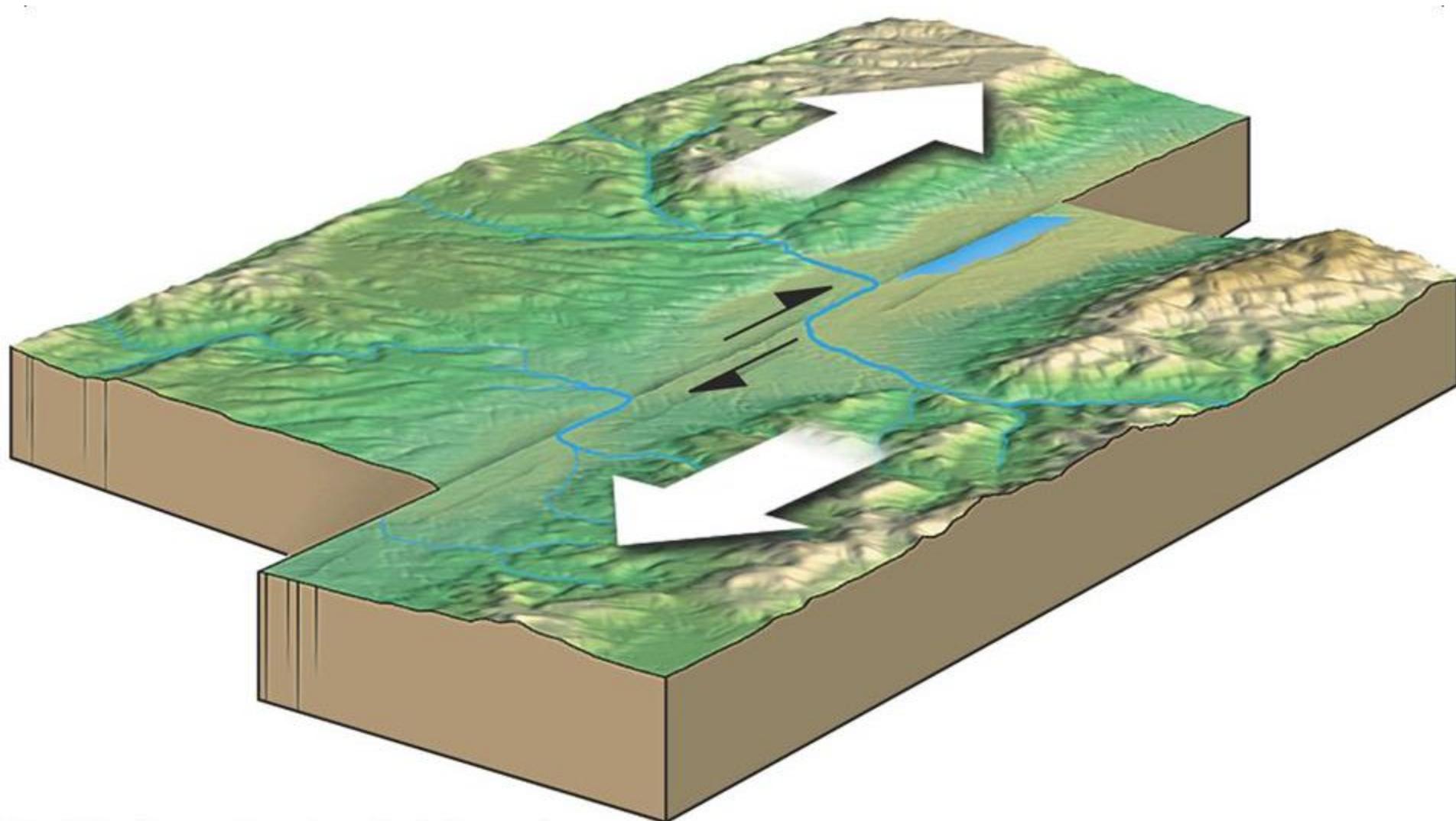


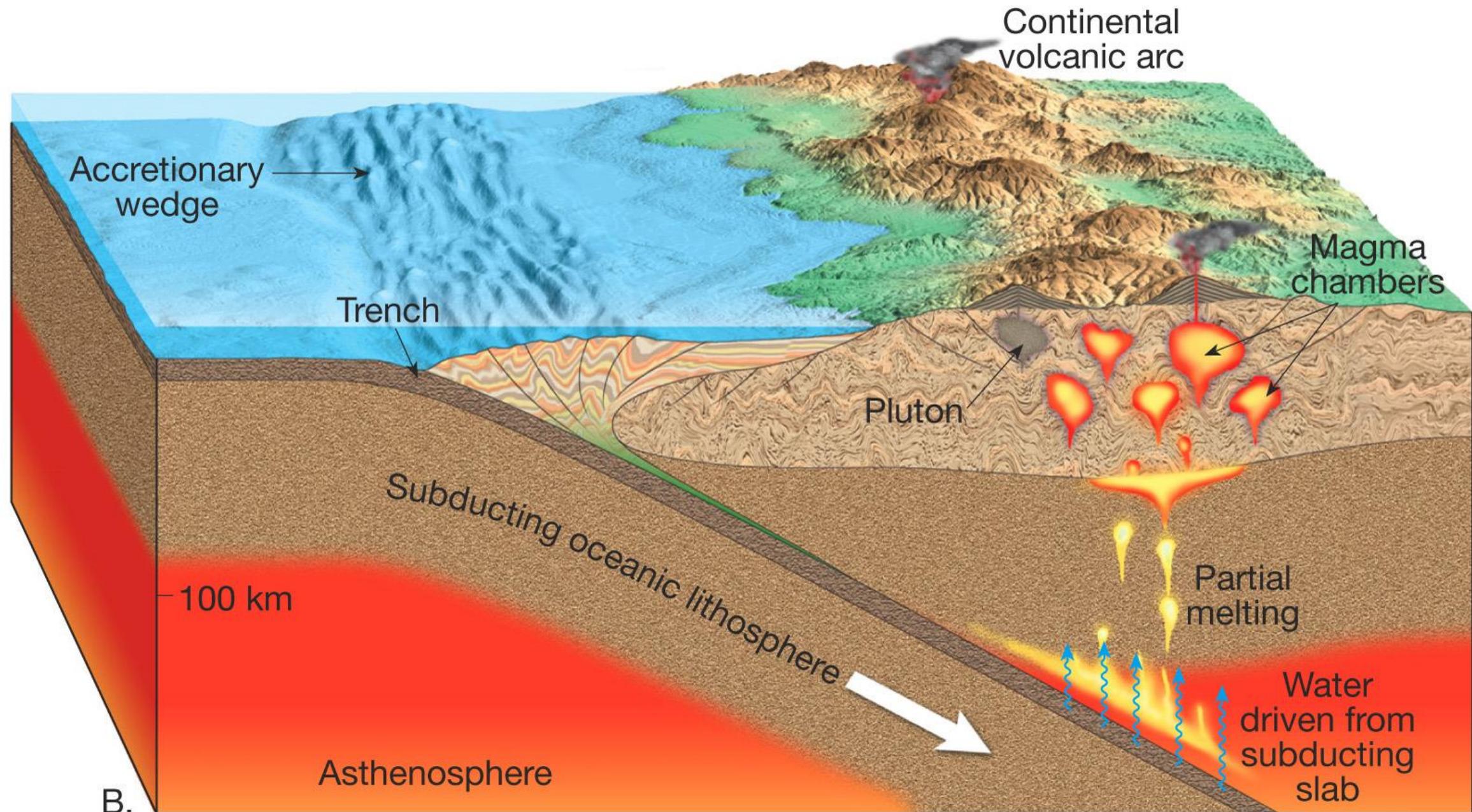




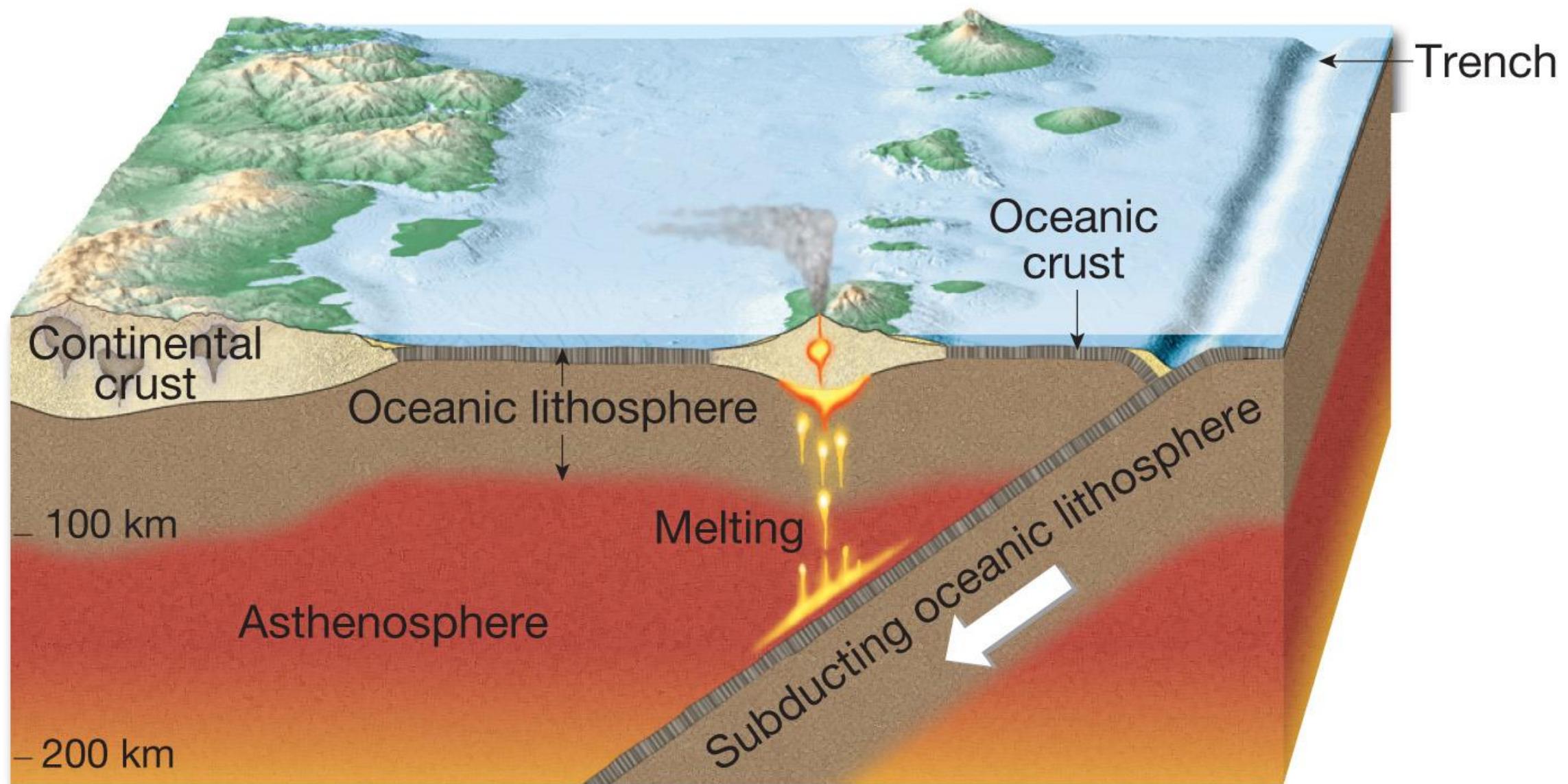




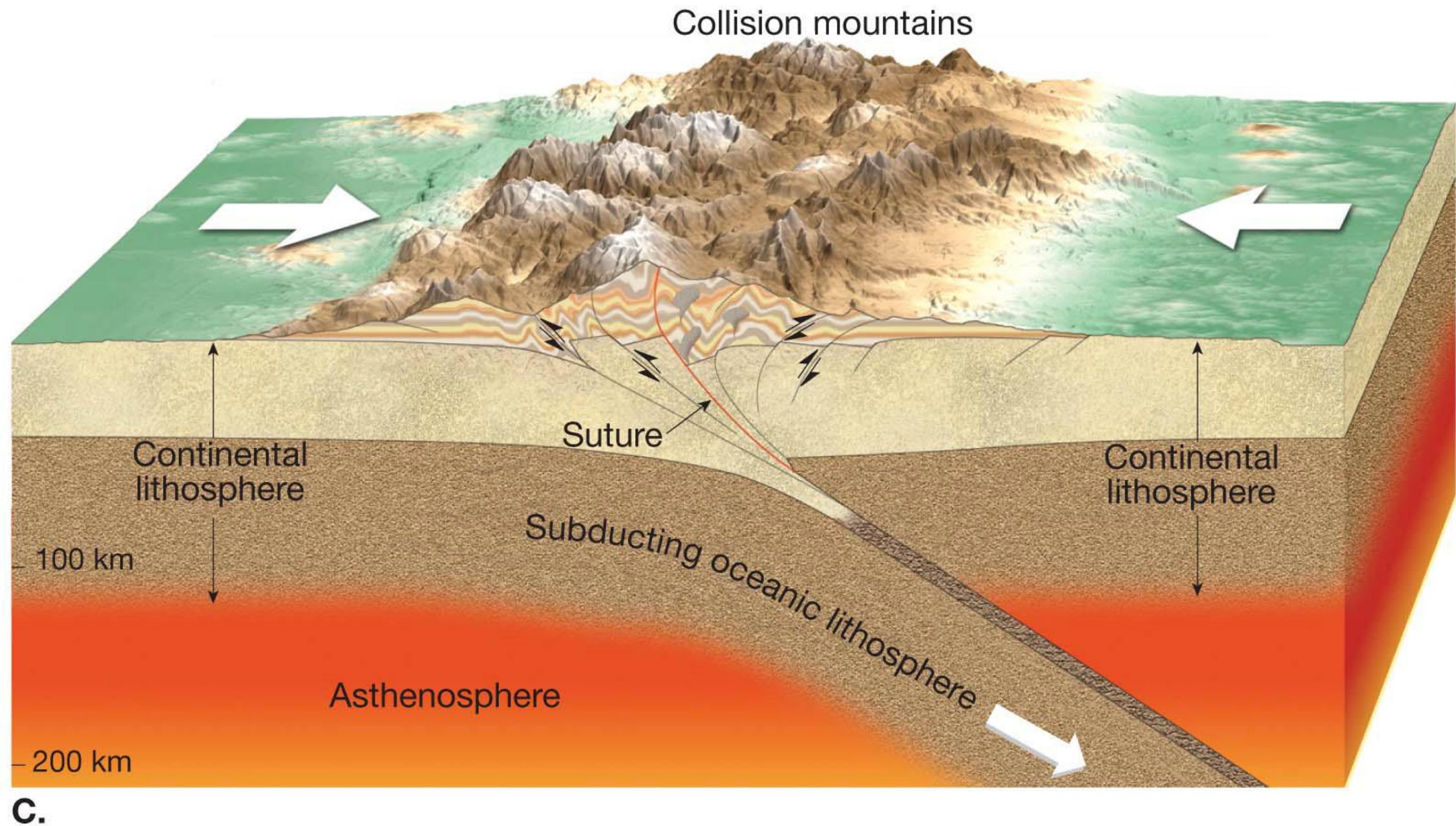


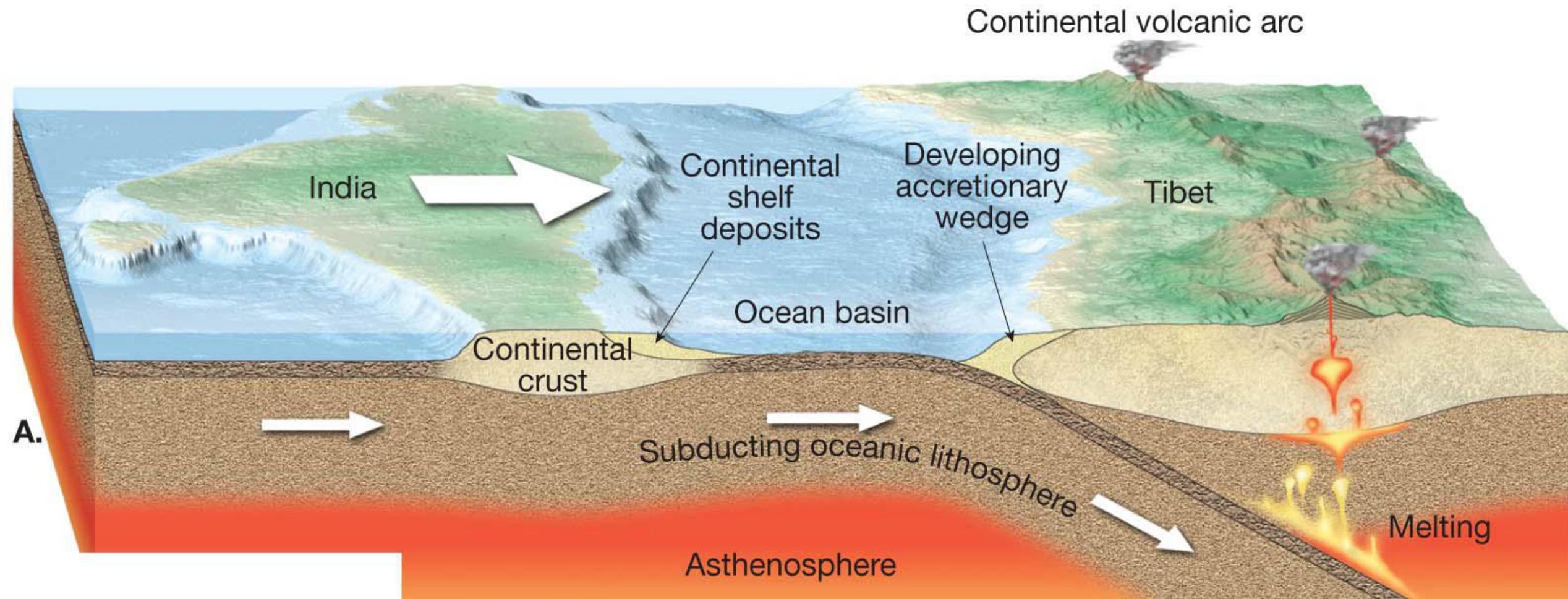


Volcanic island arc



A.





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