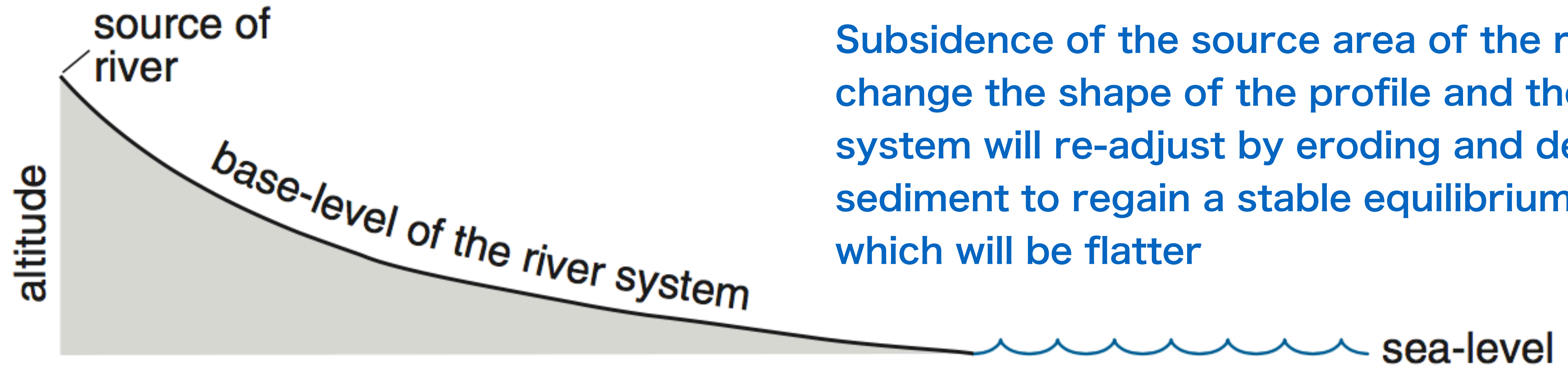
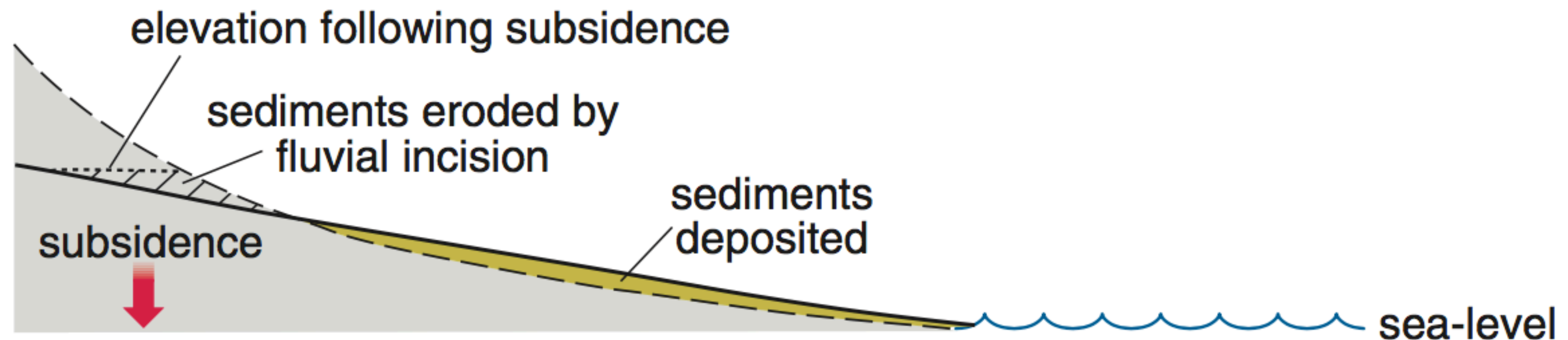


# Equilibrium profile



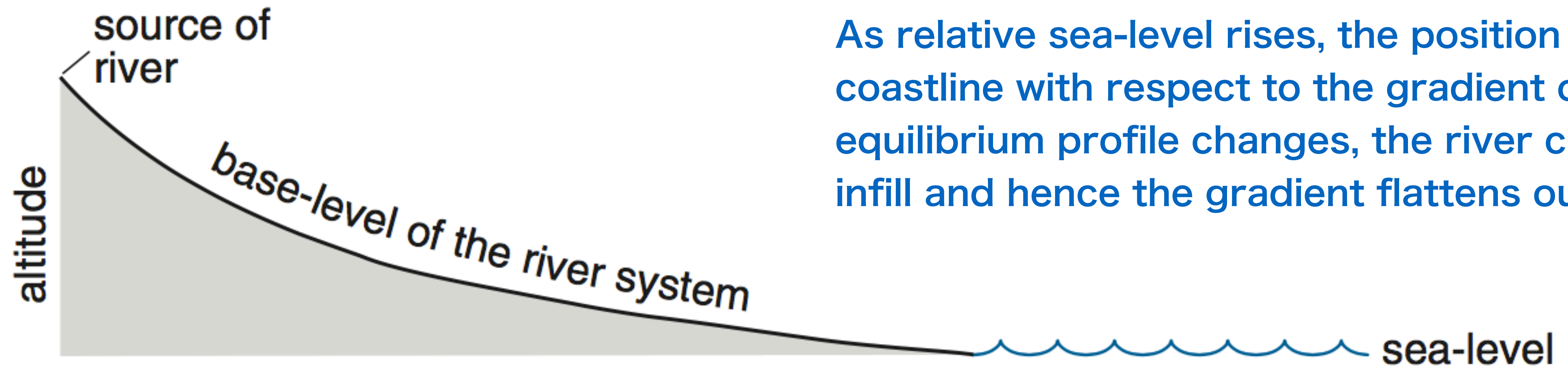
Subsidence of the source area of the river will change the shape of the profile and the river system will re-adjust by eroding and depositing sediment to regain a stable equilibrium profile which will be flatter



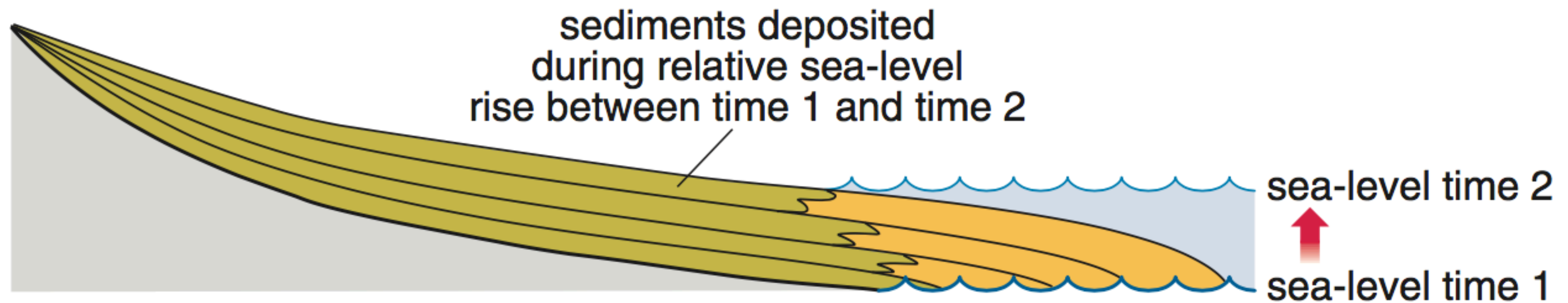
KEY

|   |                    |   |                  |
|---|--------------------|---|------------------|
|  | alluvial sediments |  | marine sediments |
|---|--------------------|---|------------------|

# Equilibrium profile



As relative sea-level rises, the position of the coastline with respect to the gradient of the equilibrium profile changes, the river channels infill and hence the gradient flattens out



KEY

alluvial sediments

marine sediments