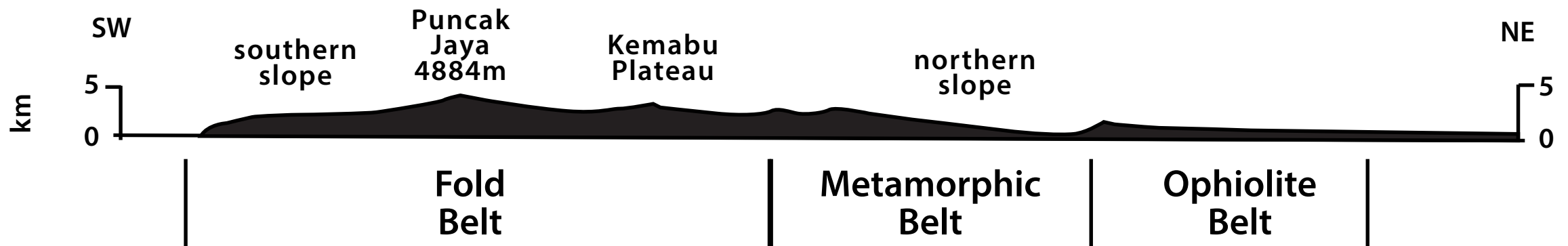
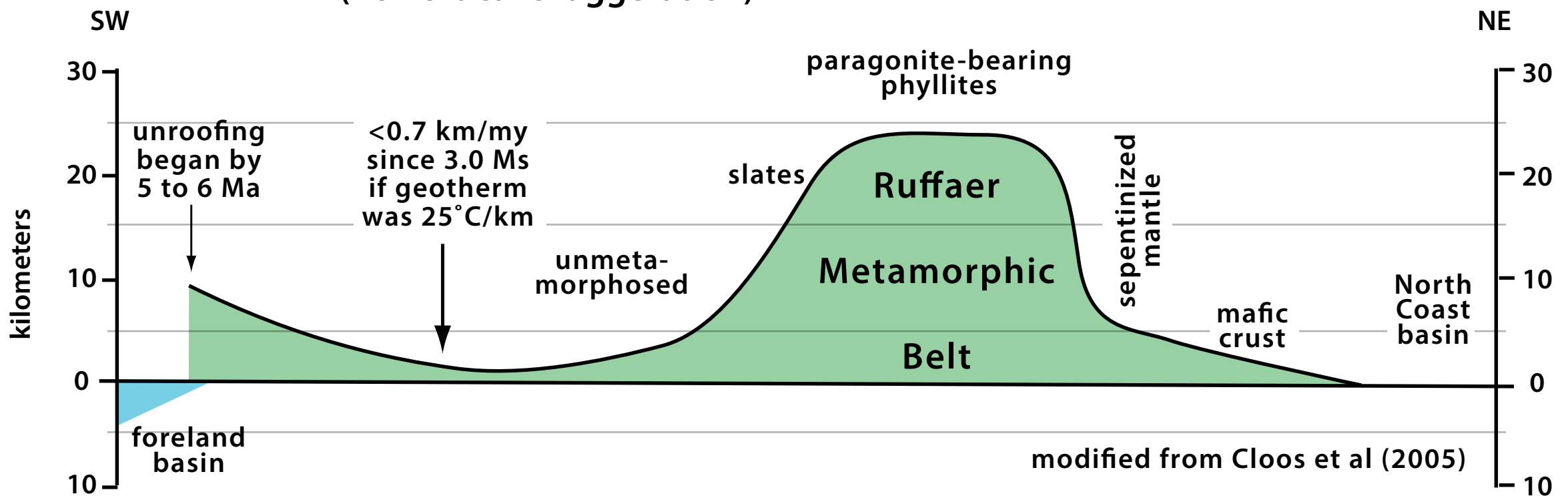


## Modern Topography (no vertical exaggeration)

12-4 Ma Central Range Orogeny



## Total Denudation (no vertical exaggeration)



**Supplemental Figure 10.** Modern topography and differences in depth of denudation in the Central Range orogen of Papua, New Guinea, modified from Cloos et al. (2005), and illustrating ~25 km exhumation on the opposite side of the orogen from the foreland. Large rivers have transported most debris northward to the North Coast basin because the nearly 5 km high Central Range (Puncak Jaya) blocks drainage to the south. We see this as a more modern example of the post-collisional sedimentation in the back-arc region, such as the <100 Ma Valle, Great Valley, Nanaimo, and McHugh successions, caused by slab break off and consequent exhumation of the hinterland belt.