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## Late Orogenic Heating: Slab Breakoff or Slab Rollback?

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High- to ultrahigh pressure rocks ((U)HP) from some collisional orogens bear evidences of post collisional heating recorded by a  $\beta$ -shaped pressure–temperature–time (P–T–t) path. The post peak pressure heating segment of the P–T–t path, which can be well developed such as in the Bohemian Massif of the Variscan orogenic belt, occurs after the (U)HP rocks are exhumated from mantle depths to various crustal levels. This process is often explained by geologists as a result of mantle delamination or slab breakoff. Based on a two-dimensional coupled petrological–thermomechanical tectono-magmatic numerical model, we demonstrate that slab rollback during ongoing continental subduction can be considered as a possible mechanism responsible for the effective extraction of (ultra)high pressure metamorphic rocks and their later heating. This slab rollback scenario is further compared numerically with the classical continental collision scenario associated with slab breakoff. The mantle upwelling occurring in the experiments with slab breakoff, which is responsible for the heating of the exhumed crustal material, is not directly related to the slab breakoff but can be caused either by slab bending before slab breakoff or by post-breakoff exhumation of the subducted crust.