

tal geotherm and produce inverse metamorphic series. The Barrovian metamorphism marked by normal metamorphic zonation originated during slow underthrusting of the Brunovistulian basement while the inversion of isogrades originated later during rapid exhumation along syn- to post-metamorphic mylonite zones at the bases of individual nappes.

THE DEEP STRUCTURE OF THE BOHEMIAN MASSIF IN THE CONTEMPORANEOUS EROSION LEVEL

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There are many outstanding differences between the Hercynian, crystalline units of the Bohemian Massif in the contemporaneous erosion level, well documented by geological, petrological and sedimentological data. The relicts of the pre-Hercynian, most probably Cadomian, erosion level determinate the location of deeper levels in the WNW part of the Erzgebirge Mountains (Freiberg-Ústí n.L.) and upper parts in ESE (the Fichtelgebirge). The boundary of this development is situated on the Ohře fault zone. In the crystalline units of the Bohemian Massif core (Moldanubicum, Barrandian) the relicts of the post-Hercynian erosion level are predominant, because of a strong uplift during the closing time of Hercynian orogeny, in south part of the Bohemian Massif especially. A difference in the erosion level between the Elbe fault zone and Donau fault zone is more than 12 km in the depth of crystalline units. Corresponding differences in the contemporaneous erosion level are displayed by units in the north of the Bohemian Massif between Odra lineament and Elbe fault zone and in the south, between the Donau fault zone and Insubric lineament in the basement of the Alps. By this way originated an imbricated structure of the Bohemian Massif. This is caused probably by subduction of the Larusia under Gondwana and by block desintegration of the Hercynian orogenic belt during the closing of Hercynian orogeny.

In the east of the Bohemian Massif the depth of erosion level is increasing from east to west (DVOŘÁK, 1993) in the Paleozoic units, but the relicts of Postcadomian erosion level are traceable, too. Therefore the knowledge of the tendencies in erosion level is important for paleogeography (eg. discussion on the origin of feldspars in Permo-Carboniferous greywackes), for metallogeny, and for interpretation of deep seismic sounding and localisation of scientific drill holes.