

that a possible influx of H₂O-rich fluids occurred after peak metamorphism. This study suggests that during contact metamorphism of the protolith of skarns from Garby Izerskie, CO₂ and H₂O behaved as "initial value components" whose activities were controlled by reactions within local systems.

Rb–Sr whole-rock dating of calc-silicate rocks from Garby Izerskie shows that this metamorphism was connected with Karkonosze granitoids of Variscan age, yielding an age of 302(?)–333 ± 4 Ma. The Karkonosze intrusion generated thermal fronts in its cover. These thermal fronts outstripped of the

Karkonosze intrusion in time and were the source of heat causing contact metamorphism in the Izera area.

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References

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Two-dimensional Computer Model of Subsidence, Erosion and Thermal History of the Nesvačilka Trough, Eastern Bohemian Massif

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The evolution of sedimentary basins situated on the eastern margin of the Bohemian Massif underwent a complex evolution consisting of several subsidence and uplift phases. Computer program for two-dimensional simulation of sedimentary and diagenetic processes was applied to show the changing geometry of the basins situated on the Bruno-Vistulian crystalline basement and to estimate the original thickness of the partly eroded units.

The model starts with import of the digital seismic section where the horizons and unconformities are marked. In the next step, the age, lithology and physical properties are attributed to the individual sedimentary bodies. The most complex step is the restoration of the eroded units. Several features give evi-

dence that the Upper Carboniferous strata were thicker than those preserved. An abrupt change in the trend of the diagenetic parameters, such as porosity, vitrinite reflectance, and pyrolytic data, is observed at the Jurassic/ Paleozoic boundary. The absolute values of these parameters are used to calibrate the modelled pre-erosional thickness of Namurian to Westphalian, Upper Jurassic, and Eocene strata.

The modelling results are shown as a series of the restored 2-D section at time of the most important events from the Paleozoic subsidence and thrusting through Jurassic rifting, Late Cretaceous erosion of a submarine canyon, Paleogene deposition and Early Miocene emplacement of the nappes of the Carpathian Flysch Belt.

Detailed Geological Documentation of the Jakubčovice Quarry; Moravian-Silesian Culm

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The active quarry at Jakubčovice nad Odrou (basal part of the Hradec–Kyjovice Fm., Upper Viséan) has been many times an object of excursions and research. The quarry was recently chosen as the largest and best exposed outcrop for complex research during the geological survey on the map sheet 1:25,000 Odry (25–121). Altogether nine benches were studied, with the lengths of sections on individual levels ranging between 50 and 600 m. The walls were documented from the viewpoint of lithostratigraphy, sedimentology, sedimentary petrology and structural geology. The principal results of the survey are presented below.

Lithostratigraphy and sedimentology:

Thick-bedded to massive-bedded greywackes (sandstones) represent deposits of the overbank facies association. They are interbedded with more sandstone-dominated lithologies of the

amalgamated channel and sheet facies association. We suppose, in accordance with Hartley and Otava (in print), an axial turbidite system fed from the southern part of the basin. The paleocurrent reconstruction was derived from relatively rare bedding planes with flute casts and tool marks. Such bedding planes represent also horizons correlative across all benches. Paleocurrent indicators show a predominant S/SW to N/NE transport direction, approx. 25 % of marks are swung to NNW. The results agree with regional distribution of paleoflow indicators presented in the synthesis of Kumpers and Martinec (1994).

All levels locally display fine-grained laminated facies, the thickness of which does not exceed first tens of metres. This facies comprises parallel-laminated fine- to very fine-grained sandstones, siltstones and mudstones. Fine-grained sandstones