Tectonic Position of the Pre-Flysch Sequence in the Central Part of the Drahany Upland

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The Drahany Upland belongs to the Rhenohercynian belt of the Middle European Variscides. The Drahany Upland is mostly composed of the Lower Carboniferous flysch formations graywackes and shales (Culm). In the central part of the Drahany Upland the Lower Paleozoic rocks (shales, basalts) are incorporated in the flysch complex. Few isolated outcrops of the Devonian and Silurian rocks between Ptenský Dvorek and Repechy are called the Repechy Belt.

A tectonic position of the pre-flysch rocks was first explained by Kettner (1966). Pre-flysch sequence outcrops in the core of the Culm anticline. Dvořák (1966) suggested that the pre-flysch sequence is bordered by two subparallel dislocations situated in the limb of the anticline.

Based on structural data (dip direction, and dip of the bedding), the tectonics of the whole area seems to be cylindric with an axis plunging to the south in the northern part of the Repechy Belt. In the southern part of the Repechy Belt the cylindricity axis dips to the north. The pre-flysch sequence in the central part of the Drahany Upland is thus situated in the axial depresion.

Tectonics of the Repechy Belt was examined in a number of natural profiles in deep valleys. It was found that the preflysch formation is, contrary to previous views, situated in the core of the syncline. The syncline seems to be a part of the folded thrust plane along which the pre-flysch sequence was thrust onto the flysch complex.

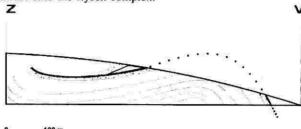


Fig. 1. Profile along the Repechy Valley, central part of the Drahany Upland.

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New Paleontological Finds in the Western Part of the Krkonoše - Jizerské Hory Mts. Metamorphics and their Impact on Stratigraphical and Tectonical Concepts

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New finds of a richly diversified ichnofossil assemblage with stallate, spiral and other types preserved in the roofing phyllites of the Železný Brod area, point to a deep-water environment and most probable Ordovician age of the rocks (Chlupáč 1997).

The re-examination of former fossil finds in the graphitic layers associated with limestones at Koberovy SW of Železný Brod allowed the conclusion that the unique crustacean specimen may be possibly conspecific with Silesicaris nasuta Gürich, whilst the nature of the accompanying remains, formerly regarded as graptolites, is doubtful (ichnofossils or metamorphosed graptolites). In both interpretations, however, the remains indicate a younger age of limestones than Cambrian (possibly Silurian or Devonian). This raised doubts about the Cambrian age of the Wojcieszów Limestone at Lipa Górna (the Kaczawa Mts., Poland) which yielded Silesicaris nasuta Gürich and also supposed Cambrotrypa (Gunia 1967), the

latter regarded by the present author as indeterminable remains of tabulates or other doubtful fossils, not proving the age.

New finds of corals, common branched stromatoporoids (Amphipora, Stachyodes etc.) in the limestones of the Ještěd Mts., which represent the westernmost part of the West Sudetes metamorphic rocks on the territory of the Czech Republic, markedly enlarged the extent of demonstrably Devonian rocks in this area, particularly in its southern part near Světlá pod Ještědem and other localities in the SW surroundings of the town of Liberec (Chlupáč and Hladil 1992, Chlupáč 1993, 1998).

All these finds allow the conclusion on Variscan folding and metamorphism of probably Lower Carboniferous age (Visean, "Sudetic" movements) and point to absence of formerly presumed Early and Late Caledonian unconformities (the Ještěd Quartzites are integral part of the phyllite sequences, the Upper Devonian rocks are not transgressive). The