MAIN FEATURES OF THE REGIONAL METAMORPHISMS IN HUNGARY

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The main features of the Alpine and pre-Alpine metamorphisms occurring in Hungary are outlined in order to give elements for international correlations in the ambit of the IGCP Project No. 276.

On the basis of the more recent structural models, the lithostratigraphic sequences and the metamorphic records of the Alpine, Variscan and "Caledonian" (Panafrican?) events are outlined separately for each structural "Superunit". The relevant radiometric age data available in the literature are reported and critically evaluated, and the P-T conditions for each metamorphic event in each structural superunit are estimated.

The distribution area of the Alpine metamorphism is outlined, both as concerns the monometamorphic imprint within the post-Variscan sequences and the overprint on the Variscan basement. The metamorphism mainly produced barrovian-type subgreenschist to greenschist facies mineral assemblages (however staurolite locally occurs), but high pressure-low temperature conditions are recorded in the Pennidic sequences, as an effect of the Early Alpine metamorphism.

This pre-Permian basement consists of an amphibolite facies substratum and some low-grade, mainly phyllitic sequences, the sedimentation age of which is proven (and locally assumed) to be Paleozoic. The main metamorphic effects occurring in this basement are related to the Variscan event, which turns out to be related to rather high thermal gradients, over a temperature range from the subgreenschist facies to anatectic conditions.

A pre-Variscan, foliation-producing, barrovian-type metamorphism is still recognizable in some areas, as relics not completely obliterated by the prevailing Variscan effects.