

## **PALEOGEOGRAPHY OF THE CARPATHIAN FOREDEEP BASIN – A GLOBAL PERSPECTIVE**

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Thirty two maps were constructed which depict the plate tectonic configuration, paleogeography and selected lithofacies for Phanerozoic time intervals from the earliest Cambrian through the Neogene. The maps were constructed using the plate tectonic model, which describes the relative motions between approximately 300 plates and terranes. This model was constructed using PLATES and PALEOMAP software, which integrate computer graphics and data management technology with a highly structured and quantitative description of tectonic relationships. The heart of this program is the rotation file, which is constantly updated, as new paleomagnetic data become available. Hot-spot volcanics serve as reference points for the calculation of paleolongitudes. Magnetic data have been used to define paleolatitudinal position of continents and rotation of plates. Ophiolites and deep-water sediments mark paleo-oceans, which were subducted and included into foldbelts.

We have subdivided the Phanerozoic into 32 time slices. These time slices are thought to represent supersequences bounded by second order unconformities. Our time slices are equivalent to supersequences representing second order tectono-eustatic sea level fluctuations.

The Paleozoic time slices map depicts the process of assembly of Pangea and formation of the basement of the Carpathian Foredeep Basin. The Triassic-Early Cretaceous maps reflect process of rifting of the Tethyan margins and deposition of carbonates on the platforms. The Late Cretaceous-Paleogene maps illustrate the synorogenic processes like deposition of the flysch and formation of the Carpathian nappes. The Neogene maps depict the final stages of the Carpathian thrusting and formation of the Carpathian foredeep basin.