

Paleogeography of the Central Paratethys particularly the Vienna Basin

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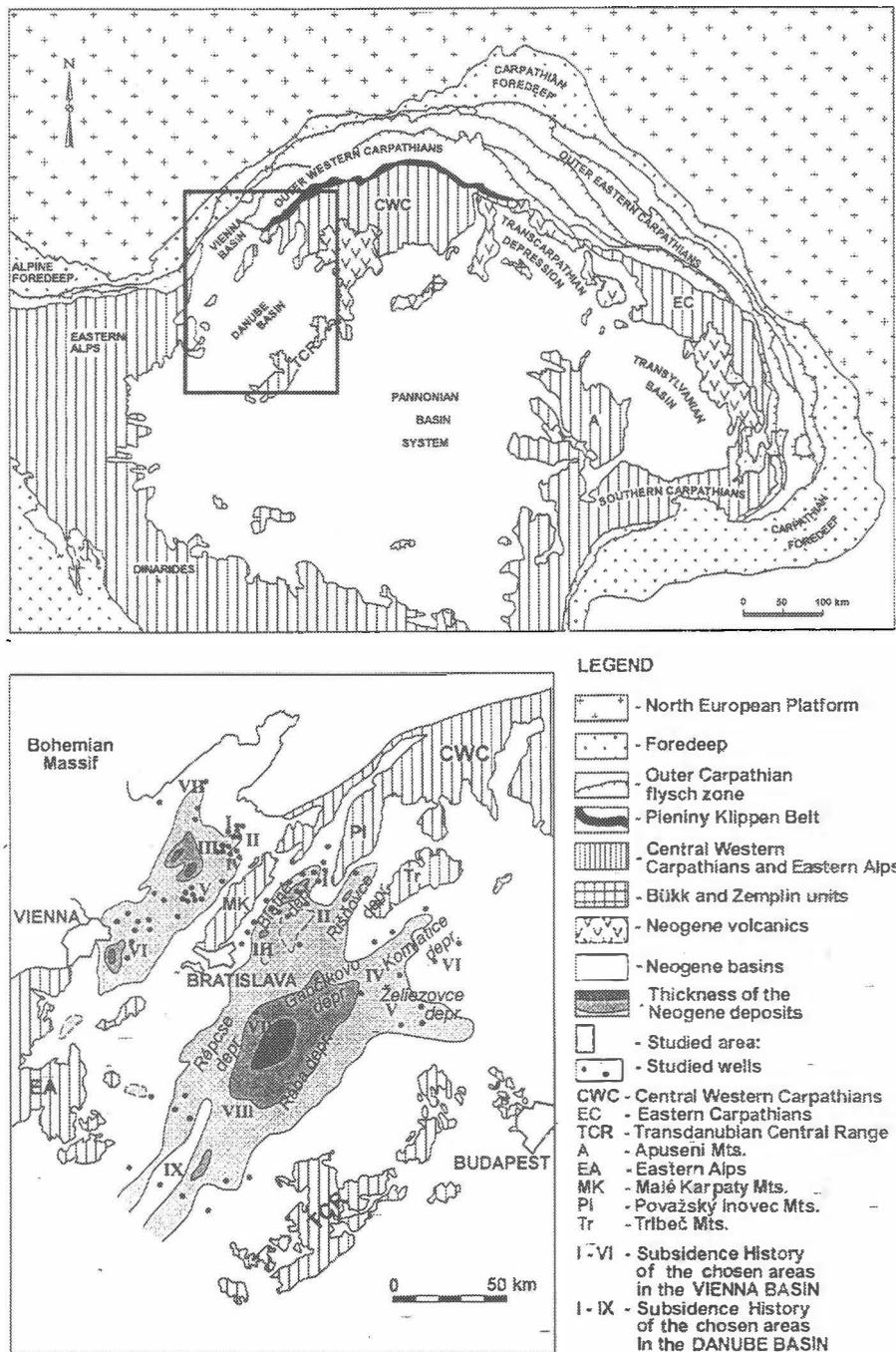


Fig. 1: Map of the studied area (after LANKREIJER et al. 1995).

The approach to reconstruct the basin evolution must be multidisciplinary. Many different results have to be connected: for example, paleogeography, lithostratigraphy, tectonics, relative sea level changes and immigration of new faunas. In detail, the northern (Slovak) part of the Vienna Basin was studied (Fig. 1). The evolution of the “present day” Vienna Basin started with a tectonically controlled subsidence in the Karpatian. In the northern part

of the basin a strong tectonic control existed during this time (Fig. 2). During the Middle and Late Miocene the Vienna Basin gained, more or less, a back-arc basin character. All parts of the basin show their individual evolution in time (Fig. 2).

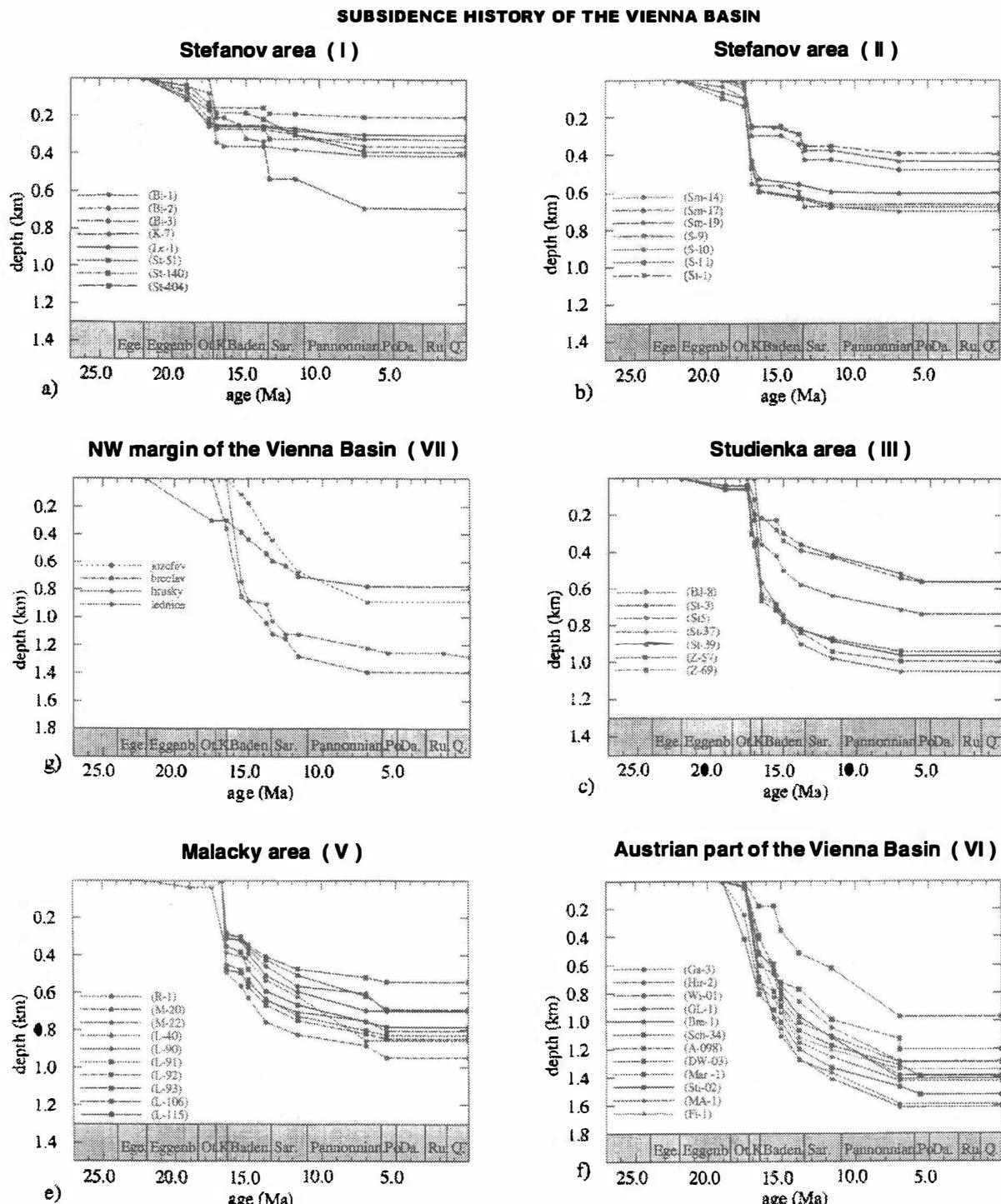


Fig. 2: Comparison of the subsidence history in various parts of the Vienna Basin (LANKREIJER et al. 1995).

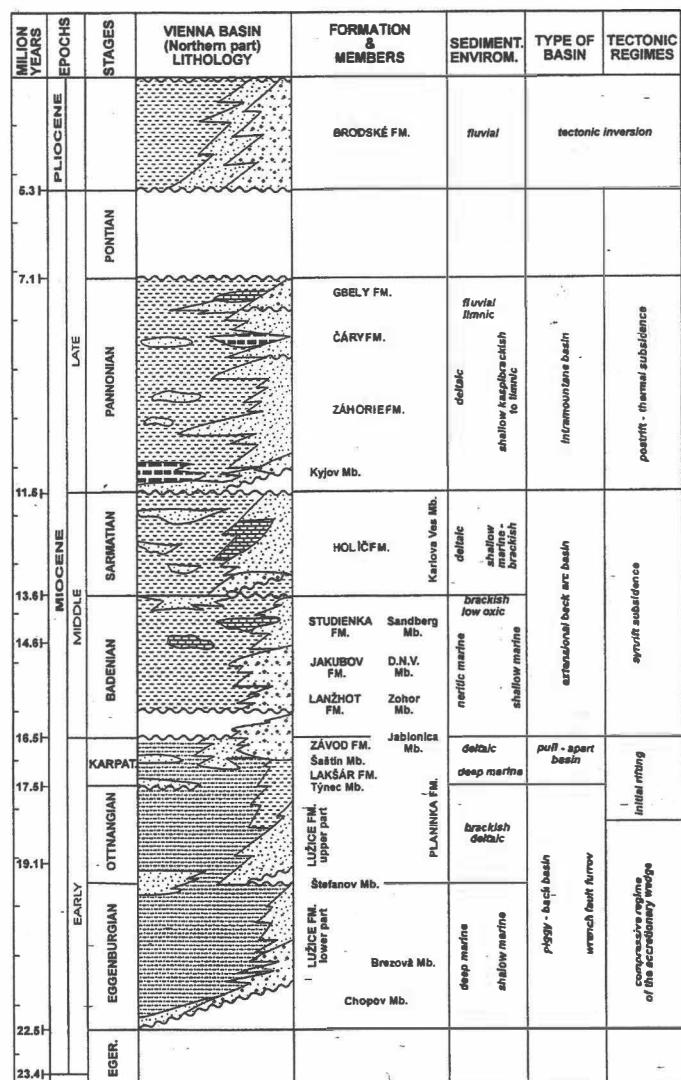


Fig. 3: Miocene lithostratigraphy of the Northern part of the Vienna basin (after KOVÁČ 2000).

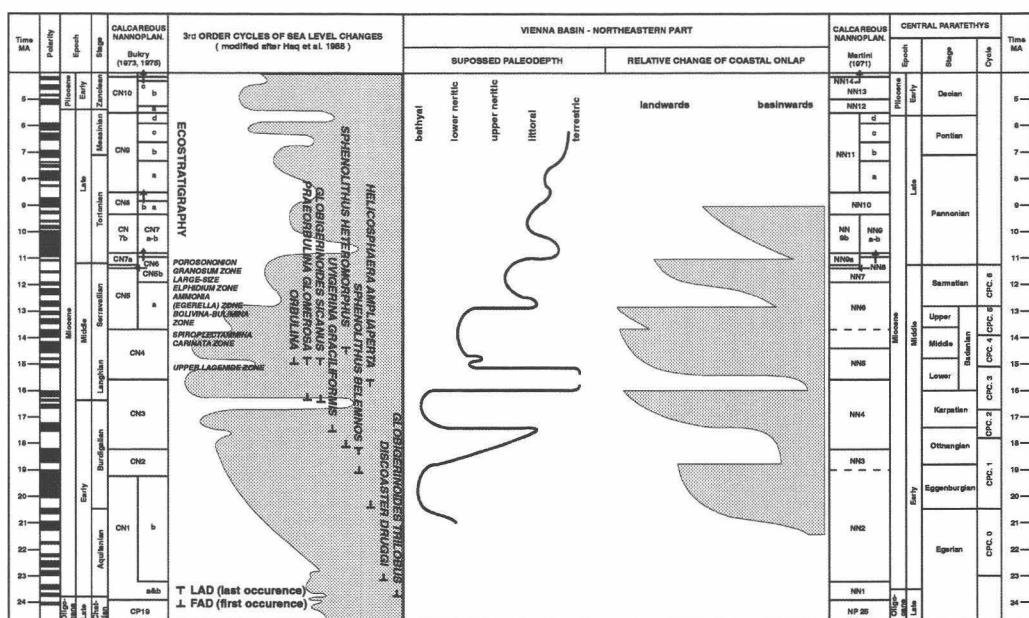


Fig. 4: Coastal onlap and relative sea level changes (paleodepth) in the northeastern part of the Vienna Basin (after HUDÁČKOVÁ 1995, KOVÁČ & HUDÁČKOVÁ 1997, HUDÁČKOVÁ & SLAMKOVA 2000, KOVÁČ et al. 2000).

Localities	MN-zones	Index fossils
Stokerav limestone pit (Neudorf-Spalte)	MN6 (a) (lower part)	<i>Dinosorex sansaniensis</i> <i>Lanthanotherium sansaniensis</i> <i>Plesiodimylus chantrei</i> <i>Talpa minuta</i> <i>Pliopithecus vindobonensis</i> <i>Amphicyon major</i> <i>Hemicyon sansaniensis</i> <i>Cricetodon sansaniensis</i> <i>Eomuscardinus sansaniensis</i> <i>Microdyromys miocenicus</i> <i>Bransatoglis astraracensis</i> <i>Chalicotherium grande</i> <i>Dicrocerus elegans</i> <i>Heteroprox larteti</i> <i>Taucanamo sansaniensis</i> <i>Zygodipodon turicensis</i>
Sandberg	MN6 (b) (upper part)	<i>Griphopithecus suessi</i> <i>Pliopithecus antiquus</i> <i>Trocharion albanense</i> <i>Ursavus brevirhinus</i> <i>Dicrocerus elegans</i> <i>Heteroprox larteti</i> <i>Taucanamo sansaniensis</i> <i>Zygodipodon turicensis</i>
Bonanza	MN6 (b) (upper part)	<i>Trocharion albanense</i> <i>Eumyaron sp.</i> <i>Zygodipodon turicensis</i>
Wait quarry	MN6	<i>Pristiphoca vetusta</i>

Tab. 1: Mammal localities and Index fossils (after HOLEC & SABOL 1996, SABOL 2000).

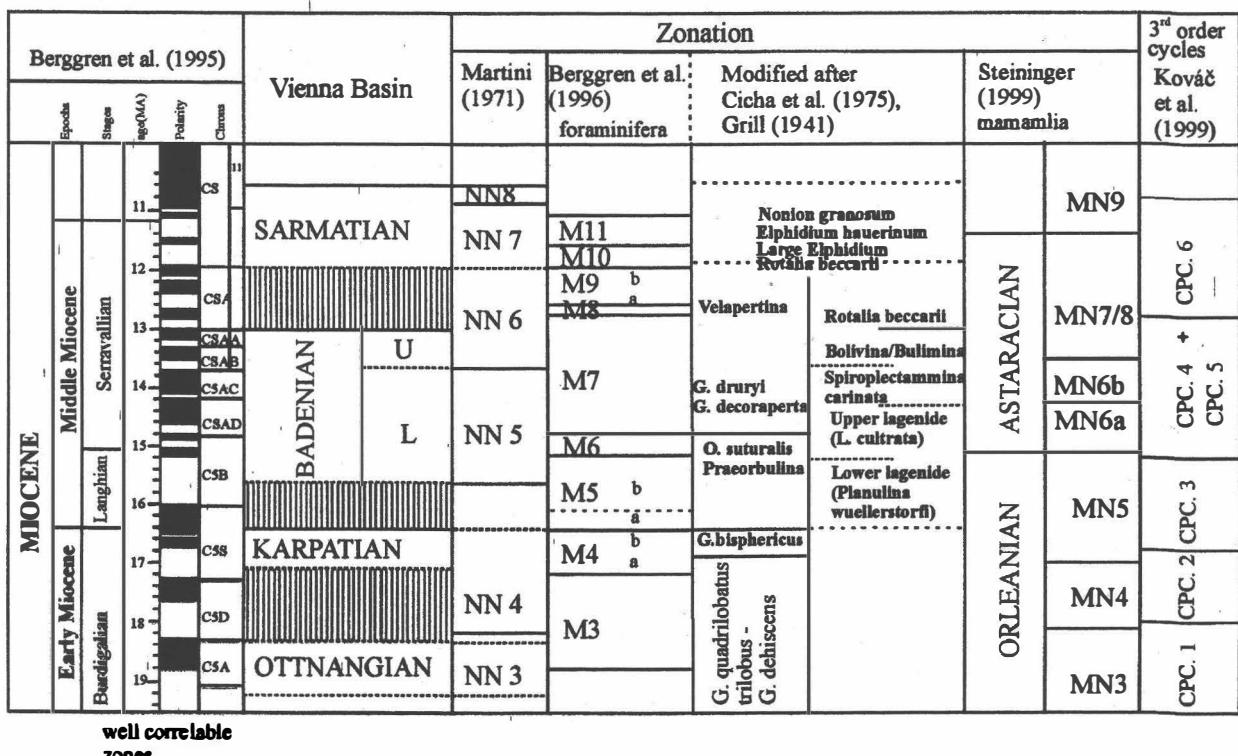


Fig. 5: Compilation of different fossil zonations of the Slovakian part of the Vienna Basin (after HUDAČKOVÁ et al. 2000).

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