

H. KOZUR, Hungary
R. MOCK, CSSR

THE REMNANTS OF THE TETHYAN MOBILE BELT IN THE CARPATHIANS

The Tethyan Mobile Belt of the Carpathians comprises active rift zones between the stable Europe and Apulia. In the Triassic the main rift zone was in the east, directly adjacent to stable Europe. Its remnants can be found in the Transylvanian nappes and in pebbles from the exotic ridge (Andrusov Ridge) in the Pieninic Klippen Belt and in the Main Unit. The rifting in this eastern rift zone was already strong during the Lower Anisian, where pelagic conodont faunas and psychrospheric deep water ostracod faunas were found. In the Transylvanian nappe also Lower Anisian pillow lavas are known that were present perhaps also in the quite subducted inner zone of the Pieniny Klippen Belt, but cannot be dated from pebbles so far.

In the westward adjacent area the rifting began only in the Pelsonian, where red pelagic limestones overly abruptly Lower Anisian platform carbonates. This part of the Tethyan Mobile Belt is known in tectonic windows below the Fennikum, Rudabányicum and Silicicum in northern Hungary and Slovakia south of the Gemeric suture line (South Bükk Shale Unit, Darnó-hegy Unit, Melliata Unit). Most of these occurrences are tectonic melanges. The Ladinian and Upper Triassic development of this area was similar to that of the eastern main rift, may be that the rift axis has even shifted in this area.

The main rifting was in the Ladinian and Lower Carnian, where red cherts, red shales and some red pelagic limestones were laterally replaced by huge amounts of pillow lavas with

only minor intercalations of red shales and red cherts. Also gabbros are frequent and some ultramafics occur as well. In the Norian flyschoid sediments indicate compression.

In the Liassic sandstones, shales, pelagic and shallow water limestones were sedimented, in the Aalenian black flyschoid sediments follow, overlain by black shales and cherts of Bajocian age, sedimented well below the CCD. Huge amounts of pillow lavas and gabbros of Bajocian or a little younger ages are present above all in the western Bükk Mts.

During the Europa-ward directed compression of the Carpathians the not subducted remnants of the Tethyan Mobile Belt were thrust into the highest nappe position in the Eastern Carpathians that were always part of the shelf of stable Europe. In the Western Carpathians the remnants of the Tethyan Mobile Belt are situated in the lowermost nappe position, because the Central and Inner Western Carpathians were part of the shelf of Apulia during the Jurassic and Lower Cretaceous before the Europa-ward directed compression.