

STRUCTURE OF THE CARPATHIAN-BALKAN FORELAND AND THE WESTERN BLACK SEA AREA

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The major structural units of the Carpathian-Balkan Foreland and the western Black Sea continental shelf are: the East European Craton, the Scythian and Moesian platforms and the Cimmerian North Dobrogea-South Crimea Orogen. The boundaries between these different units are of tectonic type. The Tornquist-Teysseire Zone (TTZ) runs along the western margin of the East European Craton showing a complex combination of structural faults and more or less important overthrusts. In front of central segment of the East Carpathians the TTZ displays a fan-like shape between the southern boundary of the East European Craton and the Moesian Platform. The accurate interpretation of the structure and evolution of the Scythian Platform and the Cimmerian Orogen is a key point of the understanding of the prolongation, toward the western Black Sea, of the Caledono-Hercynian Dano-Polish Fold Belt. The Scythian paleozoic structures show two important tectogenetic moments: the Late Devonian one which deformed the Vendian-Devonian formations and generated schistosity and the mid-Carboniferous one of less tectonic intensity. The correlation with the Paleozoic history of the North Dobrogea Orogen stress out some similarities and may explain the calco-alkaline intrusive bodies within the later one. The paleozoic and the Lower Mesozoic palinspastic position of the Moesian Platform is also a key point for the understanding of the geodynamics of the Foreland and the outernmost Carpathian-Balkan units, linked to it. The existence of Ordovician tillites and of Carboniferous and Permian marine formations (with eastern faunas), in the Moesian sedimentary platform cover stress out the existence of at list two terranes inserted at different moments within the Carpathian-Balkan Foreland.