

THE ALPINE OROGEN IN THE EASTERN BALKAN PENNINSULA (BULGARIA)

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In Bulgaria two major tectonic units are distinguished: The Moesian "platform" to the north and the orogen to the south. They are separated by the thrust front of the fold-thrust belt (Balkanides s.l.). The tectonic setting of the area is similar to the border region between the Central Cordilleran fold-thrust belt and the less deformed American continental margin (craton). The Moesian unit should be considered a relatively less deformed unit of the European continental margin. The orogen consists of three types of structural units defined by rock composition, deformation and metamorphism. The first type is parautochthonous and similar in rock composition to the Moesian unit. The second type has an allochthonous origin and is comparable to southern European accreted terranes. The third type should be called a "suspect terrane" due to their unclear origin and position. Alpine sutures have not been proven.

According to the type of sedimentary infilling, rock sequences and structural data, four main superimposed basins and paleogeodynamic environments can be distinguished: Triassic - shallow shelf and initial rifting; Early Jurassic-Early Cretaceous - passive margin of unclear basin type; Late Cretaceous-Middle Eocene - back-arc basin; Middle Miocene - foreland basin. Since the Middle Miocene, a taphrogenic stage has been imposed on the southern area. The type of basins changed under synsedimentary orogenic phases, caused by collisions in the convergent zone between the Eurasian and the African plate. The pre-Late Eocene basins typically lack evidence of a southern margin, which was obviously reworked, eroded, deeply buried under thrusts or metamorphosed(?).

The folds and thrusts with north vergence and a general E-W trend formed during the orogenic stages are oblique to the earlier extension and sedimentary paleoenvironments; it is very well expressed for the Early Jurassic-Early Cretaceous basin.