



## **On the nature of the Cimmerian Continent and the opening of the Neo-Tethys**

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When Şengör proposed the existence of the Cimmerian Continent exactly forty years ago, he presented it as an ensialic arc ripped from the northeastern margin of Gondwana-Land above a southwest-dipping subduction zone. This tearing, he believed, was the cause of the opening of the Neo-Tethys. In subsequent years he and his co-workers elaborated on his original scheme, but the majority of Tethyan workers have so far preferred to view the northern and the southern margins of the Cimmerian continental ribbon as Atlantic-type continental margins, the Tethyside shortening being accommodated in their models, by one or more north-dipping subduction zones under Laurasia (later Eurasia). We here review evidence from mainly late Permian to early Triassic rocks from the various pieces of the Cimmerian Continent, dispersed during the Alpidic evolution, documenting that all of those pieces housed ensialic arcs and the opening of the Neo-Tethys took place as a consequence of back-arc rifting. This interpretation implies that during the late Palaeozoic at least, Gondwana-Land was completely encircled by subduction-controlled orogens. The rifting of the Cimmerian Continent from Gondwana-Land was a multi-episode affair creating the Farah-Rud/Rushan-Pshart/Banggong Co-Nu Jiang ocean (A. A. Belov's 'Meso-Tethys') splitting the Cimmerian Continent lengthwise between Iran and Southeast Asia. Both of the thus created ribbon continents carry late Palaeozoic-early Triassic arc rocks on them. It is thus clear that the entire northwestern margin of Gondwana-Land was a Western Pacific-type margin with fringing arc systems and back-arc basins at that time. Before the late Carboniferous this system continued westwards into the Hercynides being a part of the late Precambrian to the late Palaeozoic Protogonos magmatic arc system. The Protogonos was the generative arc of both the Hercynide and the Cimmeride orogenic systems. After the Hercynide collisions in the Americas and in Europe, Cimmerides continued the Protogonos evolution in the east. Major arc systems, and, by implication, major subduction zones are long-lived features of our planet's tectonic evolution and that is why, tectonic interpretations of orogenic belts including a myriad of independently moving terranes above as many subduction systems are unlikely to be correct.