

## THE LOWER AUSTRIAN DROSENDORF UNIT – THE TRAILING EDGE SIDE OF THE AVALONIAN SUPERTERRANE?

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The Bohemian Massif consists of various peri-Gondwana terranes that amalgamated in the course of the Variscan orogeny. The Saxothuringian and the Moldanubian Zones are considered to belong to the Armorican Superterrane which has an African affinity (TAIT et al., 1997). Characteristic for the Armorican Superterrane is the absence of zircons with ages between ca. 1.0 and 1.8 Ga (NANCE & MURPHY, 1996). The Moravian Zone, on the other hand, is considered to be part of the Avalonian Superterrane which is of South American ancestry (FRIEDL et al., 2000) and characterized by the presence of Mesoproterozoic zircons. Lithological similarities between the Lower Austrian Drosendorf Unit and the Moravian Zone have already been pointed out many years ago (FRASL, 1970). MATURA (1976), FRITZ & NEUBAUER (1993) and FINGER & STEYRER (1995) interpreted the Drosendorf Unit as a Moravian element that was tectonically incorporated into the Moldanubian Zone during the Variscan orogeny. This interpretation is complimented by recent geochemical and geochronological data which show that the Moravian Bittesch orthogneiss and the bulk of the Dobra orthogneiss of the Drosendorf Unit (Dobra Gneiss Type B; LINDNER & FINGER, 2015) are correlative. Both are ~580 Ma old, I-type granitoids with volcanic arc characteristics. A second, geochemically distinct type of Dobra Gneiss (Dobra Gneiss Type A) is preserved in the easternmost part of the Dobra orthogneiss body. This rock has a much older, Mesoproterozoic protolith age (GEBAUER & FRIEDL, 1994). We thus speculate that the Drosendorf Unit represents the trailing edge side of the Avalonian Superterrane, which was formerly in contact with South American cratonic basement. The Avalonian ancestry of the Drosendorf Unit is further corroborated by abundant Mesoproterozoic zircons recorded in paragneisses that overlie the Dobra Gneiss in the east.

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