

negative $\epsilon^{147}\text{Nd}$ values (-2 to -8). The data arrays diverge into two individual branches towards two end-member compositions. These arrays can be interpreted by two theoretical mixing hyperbolas indicating chondritic mantle-young crust and chondritic mantle-old crust mixing, respectively. The K2-samples corrected for 300 Ma do not allow a well-established mixing interpretation. Supposedly these gneisses are older than 300 Ma or highly disturbed in their Rb-Sr system.

The Felbertal deposit gneisses cannot be derived from a single magma reservoir. Magma mixing with at least two different crustal sources must be postulated. We want to draw attention to the data from the Granatspitz-Central gneisses with $\epsilon^{147}\text{Nd} \approx -5$ to -9 and $\epsilon^{87}\text{Sr} \approx +150$. These data are far outside the range of Central gneiss data in the literature ($\epsilon^{147}\text{Nd} \approx -1$ to -5 and $\epsilon^{87}\text{Sr} \approx +10$ to $+50$) and support the geochemical interpretation of the Granatspitz-Central gneiss protolith as a S-type granite. Furthermore they do not favour a genetical link to the gneisses within the ore deposit Felbertal.

GEODYNAMIC EVOLUTION OF THE SOUTHEASTERN BOHEMIAN MASSIF: FROM A CADOMIAN ARC OVER AN EARLY PALEOZOIC RIFTING EVENT TO A VISEAN SUBDUCTION-COLLISION SCENARIO - A TYPICAL VARISCAN STORY

FINGER, F.

Institut für Mineralogie der Universität Salzburg

Many rocks of the southeastern Bohemian Massif, particularly in the Brunovistulian (DUDEK, 1980), but also in the Moldanubian unit, are remnants of a Cadomian magmatic arc. The nature and geometry of this arc system may be tentatively inferred on the basis of geochemical data (FINGER et al. 1989, 1994; JELINEK & DUDEK, 1993; FINGER & STEYRER, 1994): Parts of the arc are probably resting on Proterozoic Gondwana basement. On the other hand, there is also evidence for voluminous growth of juvenile Cadomian crust in an outer arc or island arc setting, and perhaps for the existence of a back arc basin, that closed through arc-continent collision.

This arc-type crust subsequently underwent extension in the Early Paleozoic, and was intruded by basalt melts issued from enriched subcontinental mantle (STEYRER & FINGER, 1992). A continental rift developed and enlarged to the size of a small ocean ("Raabs ocean" - FINGER & STEYRER, 1994), remnants of which are preserved in the realm of the Raabs-Meisling unit (THIELE, 1984). Parts of the sedimentary record of the Drosendorf unit (THIELE, 1984) were deposited along the passive margin of this ocean.

Probably in the Devonian, the Raabs ocean started to close again in being subducted below another Gondwana derived active plate margin terrane, that finally

overrode the Raabs unit and the Drosendorf unit during the Variscan collision event (FRITZ & NEUBAUER, 1993), but is now widely eroded. The Gföhl nappe (THIELE, 1984), as hangingwall tectonic element of the Austrian Moldanubian unit, probably contains rests of this terrane, but it includes also oceanic material of the Raabs ocean. Petrographic and geochemical data (FINGER & STEYRER, 1994) suggest that the Gföhl nappe (in the sense of THIELE, 1984) is a voluminous tectonic melange of rocks of variable origin and metamorphic history, that were welded together in the subduction zone, where the Raabs ocean was consumed (the often used term "Gföhl terrane" is, therefore, a misleading term that should better be avoided).

Actually, the southeastern Bohemian Massif reveals a typical Variscan story in documenting Early Paleozoic rifting of Panafrican basement up to oceanization (break up of the northern Gondwana margin) and subsequent Devonian to Visean subduction and collision tectonics, as a result of the general convergence and final collision of the megacontinents Gondwana and Laurasia (cf. e.g. FRANKE 1989).

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GEOCHRONOLOGY AND EVOLUTION OF THE SOUTH BOHEMIAN MASSIF: A REVIEW

FRANK, W.

Laboratory for Geochronology, University of Vienna, Franz Grillstraße 9, A-1030 Vienna, Austria

Lithostratigraphy: The Monotonous Series in the Bayrischer Wald near Regensburg, Bavaria, represents a late Proterozoic (Vendian) graywacke sequence of which the hinterland was overprinted for the last time during the Cadomian orogenic cycle. Rb/Sr-whole rock data from the Monotonous Series E of the Weinsberg granite are well in line with this interpretation. The Monotonous Series is tectonically overlain by the much older Dobra orthogneiss, which readily could be dated as a 1.38 Ga old granodiorite which has seen a metamorphic overprint around 600 Ma. It represents the basement for the Variegated Series in Lower Austria. At least a major part of the Variegated Series S of the Kamp valley represents a Proterozoic sequence. Sr isotope ratios around 0.706 from pure marbles, typical for the Variegated Series,