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L'ORTOGNEISS DELLA MALGA DELLE MANZE
(BASAMENTO SUDALPINO ORIENTALE - COMELICO)

*THE ORTHOGNEISS OF MALGA DELLE MANZE
(SOUTHALPINE BASEMENT OF THE EASTERN ALPS, COMELICO - NE ITALY)*

Riassunto breve - Sono descritti dal punto di vista petrografico e strutturale gli ortogneiss occhiadini affioranti in Val Digon e in Val Visdende (Comelico) nel settore più orientale del basamento metamorfico delle Alpi Meridionali. Gli ortogneiss, di composizione granitica, sono formati da Qtz+Kfs+Ab+Ms±Chl e con Bt come relitto magmatico. Come le originarie sequenze silicoclastiche incassanti (Fm. della Val Digon, di età pre-caradociana), i protoliti magmatici sono stati metamorfosati in facies scisti verdi nelle fasi tettonico-metamorfiche varisiche Ph₁ e Ph₂ e infine debolmente deformati in modo fragile nella terza fase varisica Ph₃ e durante l'evoluzione polifasica alpina. I protoliti si sono intrusi durante l'evento magmatico tardo-ordoviciano e rappresentano l'equivalente in giacitura subvulcanica dei prodotti effusivi e piroclastici caradociani che ora formano i Porfiroidi del Comelico.

Parole chiave: Ortogneiss, Filoni, Magmatismo tardo-ordoviciano, Tettogenesi varisica, Basamento sudalpino, Alpi Carniche occidentali, Comelico.

Abstract - *The results of detailed geological survey and petrographic and structural analyses carried out on the small bodies of augengneisses outcropping in the eastern edge of the Variscan metamorphic basement of the Southern Alps (Comelico, western Carnic Alps) are here presented and discussed. The main body crops out near the Malga delle Manze (upper Digon valley), representing the type-locality; several, smaller and stretched bodies crop out near it, in the middle Digon Valley and in the Visdende Valley. The mineral assemblage is: quartz, perthitic K-feldspar, albite, white mica, biotite and very rare chlorite; the rocks are always coarse grained, with a variable Qtz+Ab+Ms matrix and abundant, some cm-long porphyrocrysts of Kfs, Qtz and Ab. Numerous relics of a magmatic phase (embayed phenocrysts of Kfs, Ab and Qtz, foxy-red-brown biotite only set in Kfs- and Qtz-phenocrysts) there are, showing a granitic composition for the protoliths. The shapes of the bodies and the field relationships with the surrounding siliciclastic ankerite-bearing protoliths of the pre-Caradocian Val Digon Fmt. suggest that the parent rocks formed several sub-volcanic bodies intruded during the late-Ordovician magmatic event, which produced the pyroclastic and volcanic protoliths of the Caradocian Comelico Porphyroids. Both orthogneiss and the surrounding phyllitic rocks acquired its lower greenschist metamorphic facies during the Variscan tectono-metamorphic Ph₁ and Ph₂ phases; afterwards they underwent semi-brittle and brittle deformations during the late Variscan Ph₃ phase and the polyphasic Alpine evolution.*

Key words: Orthogneiss, Dikes, Late-Ordovician magmatism, Variscan tectogenesis, Southalpine basement, Western Carnic Alps, Comelico.

