has been formed in the same island arc. This clarifies also the mechanism of obduction of the ophiolite-island arc assemblage.

Directly over SDF with the ibricated ophiolites are thrusted over the migmatites of the Thracian massif, a microcontinent probably of peri-Gondvanaland origin.

The South European Variscan suture and the connected with it abundant collisional igneous assemblage end up abrubtly on the N shore of Mediterranean sea. The disposition of Precambrian ophiolites and island-arc associations along the suture zones of NE and E Africa directly south of the Mediterranean sea is impressive (Berhe, 1990). There exist data: comparable age of the island-arc associantions and the internal structure of the zones which indicate possible connection between the investigated suture and the ones from the Mozambique belt.

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METAMORPHIC EVOLUTION OF THE WESTERN CARPATHIANS PRE-ALPINE BASEMENT

D. Hovorka and Š. Méres

Bratislava

Variscan metamorphosed (pra-Permian) complexes crop out in the Western Carpathians Tatric, Veporic and Gemeric units (Fig.).

In the Tatric unit two pre-Alpine metamorphic events are distinguished. They are defined on the basa of petrological (composition of tha rock-forming minerals, geothermometry, geobarometry), lithological and geochronological datas.

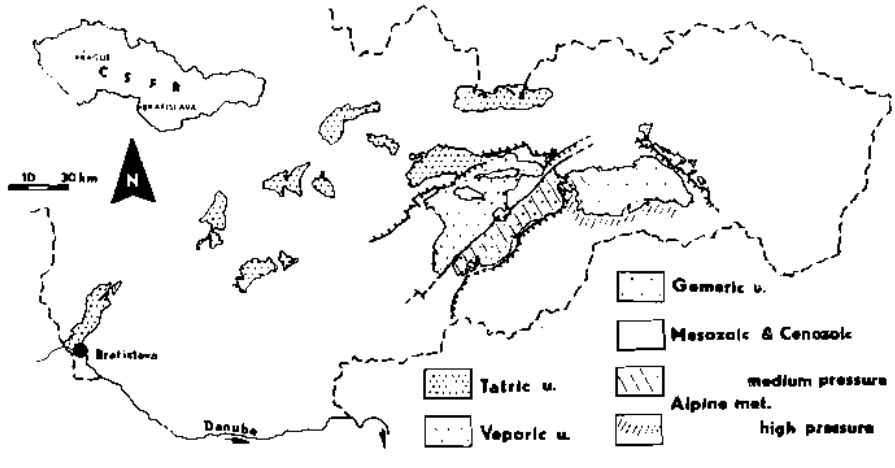
Tha older metamorphic event is documented by the presence of rock relicts originally metamorphosed undar the granulite/eklogita facies conditions. They are present in the most widespraad metamorphite types which are a product of younger (Variscan) metamorphic recrystallization. The metamorphic processes took part under the amphibolite facies conditions.

In the Veporic unit one pre-Alpine metamorphic event is defined. Amphibolite facies conditions are characteristic for it.

In the Gemeric unit Caledonian tectono-thermal event is expresed by (mostly) acid volcanic activity. Variscan metamorphic recrystallization underwent under the greenschist facies conditions. In the northem rim of the unit a sedimentary-volcanic sequence metamorphosed under the amphibolite facies conditions occurs.

Alpine processes in the Tatric unit are expressed by mylonitization of crystalline complexes. The process is located on steeply dipping narrow (dm-m dimensions) zones and on the contact parts of the crystalline complexes with overthrusted Mesozoic units.

In the Veporic unit, on contrast to the Tatric one, Alpine metamorphic recrystallization, namely within the contact zone with the Gemeric unit (Fig.), reached low-grade amphibolite facies of the medium pressure conditions. Within the Early Paleozoic Gemeric unit sequences Alpine metamorphic recrystallization reached the greenschist facies. The exception are narrow contact-thermic zones around the granite massifs of the Alpine age. In metamorphic development of the Gemeric unit occurrences of high-pressure metamorphites (blueschists) play an important role. They have developed from the Mesozoic rock protolite. Blueschists are located on the southern rim of the Gemeric Paleozoic complexes (Fig.).



The Western Carpathians crystalline complexes distribution