The Tuscan Variscan segment then becomes the Western passive margin of the Adria microplate and the basal continental crust or the Tuscan-Umbrian sedimentary Domain.

Tha chemism of the rare occurrences of Parmian and Triassic magmatic rocks also corroborate this hypothesis.

FURTHER EVIDENCE OF A HIGH THERMAL GRADIENT OPERATING ON A REGIONAL SCALE DURING THE VARISCAN METAMORPHISM IN THE EASTERN ALPS

R. Sassi* **& R. Spiess***

* Department of Mineralogy and Petrology, Corso Garibaldi 37, 35137, Padova, Italy.

Conflicting ideas exist bout the pressure values and thermal gradients which prevailed on a regional scale during the Variscan metamorphism in the Austridic basement. The difficulty to clarify this problem is largely related to the polymetamorphic nature of the Austridic basement, large parts of which also underwent a two-stage Alpine metamorphic overprint. This complex situation has lead many authors to refer all pre-Alpine features to the Variscan metamorphism: consequently, metamorphic mineral assemblages possibly crystallized in different time ranges and under different physical conditions were put together, virtually obscuring the complex pre-Alpine metamorphic evolution.

In order to contribute to the solution of these problems, the thermal gradient operating during the Variscan metamorphism within the Austridic phyllitic sequences of proven Upper Ordovician to Devonian age and not affected by Alpine metamorphism was estimated on a regional scale. These estimates were based on the mineral compatibilities and related petrogenetic grids as concerns temperature, and muscovite composition as estimated through XRD as regards pressure.

These phyllitic sequences are considered here as an original cover of the underlaying basement. This interpretation is consistent with field observations, microtextural data and garnet chemistry. In particular, two crystallization stages (a prograde stage followed by a lower-grade stage) are recorded in the garnets from the basement, whereas garnets from the phyllites only record a single-stage growth history.

As shown by the mineral compatibilities, the Variscan metamorphism recorded in the considered phyllitic complexes covers the whole temperature range of the greenschist facies. As regards pressure, the muscovite b cell dimension in the metapelites indicate low pressure values. Basing on these new data, a thermal gradient of about 40^0C/Km was estimated for the Variscan metamorphism.

Considering that identical values of pressure and thermal gradient were obtained

from different localities over a very large area, these features must be considered as operating over a regional scale during the Variscan metamorphism in the Eastern Alps.

PALEOZOIC MAGMATIC ROCKS OF ALBANIA

M. Shallo

Universiteti Politeknik, Fakulteti i Gjeologjise dhe Minierave Tirana, ALBANIA

Paleozoic magmatic rocks in Albania occur only in the Korabi-Mirdita zone. They are represented by normal - subalkaline series volcanics: rhyolite ignimbrite, trahyrhyolite, mugierite, subalkaline basalts, trahybasalts etc., which are interbedded with Ordovician - Devonian schists, phyllites, quartzites etc.; they are metamorphosed in low-grade greenschists facies and are transformed in to porphyroids, porphyritoids and greenschists. Intrusive magmatic rocks are represented by small massife of monzosyenites and granitoids and by lamprophyres (kersantite, camptonite, minette and spessartite) and gabbrodiabase dykes, which intrude Ordovician-Devonian formations.

Formation of Paleozoic volcanic rocks is connected with intracontinental volcanic activity associated with basinal and slope sedimentation during Ordovician - Devonian. Monzosyenite massifs belong to hypabiesal-subvolcanic facies, and are effected by albitisation, amphybolisation, biotitisation and sericitisation; they are associated, with intensive Si-Ne metasomatization; their chemical composition aproach to the chemical composition of the small granitoid massifes and of the lamprophyre series rocks which are considered connected genetically.

Radiometric data determine the age: 373±13.6% m.y. for the volcanic rocks; 294±16% m.y. for the monzosyenites and 241.5±12% m.y. for the lamprophyres.

OUTCROPS OF MAGMATIC AND METAMORPHIC ROCKS IN IONIAN ZONE (ALBANIA)

A. Serjani[*] & I. Bajo[**]

[*] Instituti i Studimeve the Projektimeve të Gjeologjisë, Bloku "Vasil Shanto", TIRANA, ALBANIA.

[**] Ndermarrja Gjeologjike, Gjirokastër, ALBANIA.

In Ionian Zone some outcrops of magmatic and metamorphic rocks are founded. Those are related with deep fault in Kurveleshi anticline Belt, especially in Kardhiqi evaporitic knot. The metamorphic rocks are known in Picari, and are represented by amphibolites and amphibolite-quartz-garnet-mica schists. Magmatic rocks are known