changes its deformational character rapidly within a few tens of meters towards east and west. As the result of displacement and heterogeneity of strain gradients, the schistosity (s-structures) have become uneven and shear banding (c-cisaillement) appeared. In the east, close to the Dionysos theater, the same formation is developed as a monogenous "brecciated conglomerate".

Very complex folding, shearing and cataclastic phenomena can be observed within the flysch. Cataclastic deformation is certainly the most dominant feature in the more incompetent silty and sandy layers. Ductile deformation is weak in the slates. The occurrence of chlorite and crystallinity of illite/sericite transformation suggest temperatures around 200^{0}C. An overburden of a 2 to 5 kilometer rock pile on top of the Acropolis klippes is quite feasible.

The time of emplacement of the Cenomanian limestones over the Pelagonian tectonic units is given by the minimum ages of the Athens schists. Overthrusting must have occurred during the Upper Eocene orogenic phase as result of continental collision.

NEW DATA ON THE GEOLOGY OF SOUTHERN ARGOLIS (PELOPONNESUS, GREECE)

P.Gaitanakis, and A.D. Photiades

IGME/GR, 70 Messoghion str., 115-27 Athens-GREECE.

New geological data in the Southern Argolis indicates the existence of a continental crystalline massif, probably of Paleozoic to Upper Paleozoic age, consisted of quartz conglomerate.

This substratum overties V.A.G. type granodiorites and it is followed by andesites and dacites of the arce-type Permo (;) Triassic volcanism.

Unlike Northern and Central Argolis, where the above series are covered by Upper Triassic-Liassic limestones of "Pantokrator", the same series in Southern Argolis is covered by the ophiolite "Mélange" which is rich in boninites and basalts. This "mélange" seems to be a product of a Suprasubduction zone which has been overthrusted on the prevuious Pelagonian crystalline massif, before the Upper Jurassic.

Following a relative intense period of uplifting and erosion of the above formations, the deposition of reeflimestones during Kimmeridgian-Portlandian period took place. In the roof of these limestones, their lateritic products are covered by neritic limestones of Barremian-Cenomanian age.

The sedimentation process continues with the Pelagic Upper Cretaceous limestones (Touronian-Maastrichtian) and further up it goes into the Paleogene-Eocene

flysch, by a normal transition. On this flych, the pelagic turbiditic limestones of Cretaceous age ("Ermioni" type) were overthrusted during the late Eocene.

TECTONOSTRATIGRAPHY OF VARIOUS ROCK UNITS IN THE REGION OF ARSIN (TRABZON) - TYIDERE (RIZE), EASTERN PONTIDS, NE TÜRKIYE

S. Genç

Geology Department, Karadeniz Technical University, 61080, Trabzon, TÜRKIYE.

The Pontids, where Caledonian, Hercynian and Alpine deformations and accompanying volcanic activities have often been noted, brings about and approximate E-W trending chain in northern Turkey. The abundancy of volcanic rocks of various ages including Permo-Carboniferous, Triassic, Liassic, Dogger, Malm, Cretaceous, Eocene, Miocene and Plio-Quaternary together with sedimentary units and intruding plutons is a typical character of the Pontids. As a result, the stratigraphical relations of different rock units has become more significant in the geological and in particular geotectonic interpretation of the region. Therefore, the region of Arsin-tyidere lying about 15 kms to the east of the city of, Trabzon, in Eastern Pontids of NE Turkey has tectonostratigraphically been studied. The area is mainly underlain by Upper Cretaceous sedimentary and volcanic rocks intruded locally by doleritic and/or tonalitic intrusions. The sedimentary units include limestones, marls, sandstones and tuffites whilst the volcanics, which have extensively been altered, consist essentially of dacites, andesites, basalts, basaltic-andesitic tuffs and agglomerates. Studies have shown that, in terms of their stratigraphic attitudes, two distinctly different levels may be distinguished: One of them is "lower" and other "upper". The former comprises dark-coloured, highly altered basalts, basaltic agglomerates, andesites, columnar jointed dacites, and basaltic-andesites,tuffs. The dolerites and/or tonalites are locally found intrusive into these extrusives in which weakly preserved traces of layering and well-developed joints are the observable planar structures. The upper level sits on the lower conformably and possesses well-bedded, generally light-coloured alternating units of limestones, marls, sandstones, tuffites, intensely altered dacites-andecites-basalts and basaltic-andesitic agglomerates. The visible measured total thicknesses of the former and latter level rocks are approximetaly 300 and 350 metres respectively. The studies have indicated that a well-evolvement of graded bedding is always present in the upper, whilst no indications of it were encountered in the lower level rocks. Besides, joints and bedding in the upper level rocks, SW plunging folds, and small scale faults distinguished via mylonitized horizons are also present. Interpretation of field data has also shown that folding is presumably older than jointing.