metasediment of the PQ are a roughly N-S trending foliation, N-S trending pressure shadows (D1), N-S trending fold axes and N-S trending stretching lineations parallel the fold axes (D2). These structures are supposed to have been formed during burial, at nearly peak P-T conditions.

The second phase of compression took place during the late Oligocene/early Miocene when the compression direction changed from E-W to N-S. This phase of progressive deformation produced all structures (D3), that trend about E-W including fold axes, pressure shadows around pyrite and a stretching lineation.

Even younger deformation structures (D4, D5) developed as a result of Pliocene/Neogene extension (N-S trending fracture cleavage and kinkbands, deformation lamellae and fluid trails in quartz, N-S and E-W trending faults).

The change from the first to the second compression phase is related to a fundamental change in plate motion between Africa and Eurasia: At that time (Paleocene to Miocene), the relative movement changed progressively from eastward to northward and Africa had rotated ca. 63° relative to Eurasia (Dercourt et al. 1986).

The fluid inclusions in quartz crystals contain a brine, whose composition corresponds approximately to the systems H_2O-NaCl-$CaCl_2$ and H_2O-NaCl-$MgCl_2$/$FeCl_2$ (density = $0.8g^*cm^{-3}$, based on microthermometric analysis). The orientation of transgranular frectures (inclusions treils) indicates NW-SE orientation of σ^3. During the exhumation of the PQ, the geothermal gradient changed from 14°/km at P-T peak conditions to on an everage of 42°/km which was inferred from isochores combined with petrological data.

THE SIGNIFICANCE OF THE AEGEAN REGION FOR EARTH-SCIENCE CONSERVATION IN EUROPE WITH EMPHASIS ON THE GEOLOGICAL HERITAGE OF MILOS

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Earth-Science Conservation is an absolute necessity for science and education. Two Greek sites are listed in e first provisional UNESCO-list of geological World Heritage Sites:

Lesbos Islend Petrified Forest end Pikermi.

But for concepts of Eerth-Science Conservation in Europe Milos and Thera must also play an important part. Both islands document the island arc volcanism in a unique way, especially in connection with their history.

This paper should serve to introduce and to promote Earth Science Conservation in Greece using the island of Milos as an example. Therefore, a system of geotopes developed in Germany for the use in Germany is applied to the geotopes of Milos.

87 sites of Milos are listed as geotopes which can be subdivided into 133 types. The type density for the whole island is 0.9 types per square kilometres, a value which is nearly tenfold higher than the value of the German hill countries.

86 the 87 sites can be combined in seven potential conservation areas, which have together 71.2 square kilometres, 47.4 per cent of the island's area. The protection of these seven areas is also important for nature conservation and for the promotion of tourism. The seven areas are nearly free of mining activity.

The creation of a geological nature park on Milos and Thera may be an important step in the conservation of the European geological heritage.

The European Working Group on Earth-Science Conservation is lookingg for co-workers in Graece. The office is at the Rijkinstituut voor Natuurbeheer, Postbus 46, 3956 ZR Leersum, The Netherlands.

THE ANATOMY OF THE KRANIA BASIN, NORTH-WEST GREECE

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The Krania Basin is Bartonian-Rupelian (Middle Eocene-Lower Oligocene) in age, formed as a distinct embayment on the collapsing Pindos thrust-stack. The basin developed when the locus of thrusting lay relatively close to the west and was transported as a piggy-back basin, during the overthrusting of the Pindos Flysch by the Pindos thrust-stack in the Priabonian (Upper Eocene). Clastic sediments were deposited under marine conditions, possibly in an extension of the sea which covered the Pindos and Ionian Flysch basins, to the west.

Coarse breccias and olistoliths preserved at the base of the sequence (part of the Petra-Tripimeni Formation) are interpreted to have resulted from normal faulting. After a period of relative quiescence during the Priabonian (Upper Eocene), marked by the deposition of the Krania Marls, the Orliakas Limestone (Cretaceous cover to the Pindos Ophiolite) shed olistoliths southwards into the basin. This is interpreted as being due to defolmation in the thrust-sheet during final overthrusting of the Pindos Flysch by the Pindos thrust-stack. It involved either strike-slip motion along the northern margin of the basin or block rotation along basement structures which tilted the northern part of the basin southwards. In the Lower Oligocene, the Krania Basin was folded, possibly in

