cal and textural differences between the Nea Madytos unit and the Svoula series, the Triassic-Jurassic pelagic part of the Circum Rhodopian Belt, make the earlier proposed equivalence of those two metasedimentary suites doubtful. No evidence, which could support a primary base - cover relation between the Vertiskos and the Nea Madytos units, have been found.

The Arnea granite, a strongly schistosed and lineated leucocratic orthogneiss, is overthrusted along a southwest-diping mylonite shear zone on to the Vertiskos unit.

The lack of magmatogenic phenomena, as aplitopegmatitic veins, contact aureole e.t.c. and the presence of mylonites, allow us to support, that the contact of the Arnea granite to the Circum Rhodopian Belt is also tectonic and further on that the granite is very probably pre-Upper Jurassic.

Based on the above mentioned new data we believe that the Nea Madytos unit is independent from the Circum Rhodopian Belt and originated the Vertiskos and the Kerdilion units. That area may be also responsible for the creation of the basic - ultrabasic complexes occuring within the Vertiskos unit along the contact to the Kerdillion unit. The closure of that (paleo-oceanic?) area leaded very probably to the collision of the Vertiskos and the Kerdilion units and to the creation of the Serbomacedonian massif in Early Mesozoic or Late Paleozoic. The creation of the Arnea granite may be also related to the closure of that area.

GEOCHEMICAL SETTING AND HYDROCHEMICAL EVOLUTIONS OF THREE MODERN SALINE LAKES IN CENTRAL ANATOLIA

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Due to the extensional neotectonic regime continuing since Middle Miocene, a considerable amount of graben basins occured in Western Anatolia. These basin are charaterized by terrestrial and lake sediments and also gypsum, borate and zeolite depositions.

Trona depositions (Beypazari) also show the same kind of development in Middle Anatolia. These types of occurences in Middle Anatolia gave rise to both ancient (Middle Miocene) and modern deposits (Late volcanism and saline lakes).

In this study, the three most important mirabilite producing lakes, among the hydrothermal property exhibiting lakes were examined. The geological histories of these lakes throughout thei evolutions, and their similarities and differences can be summarized as follows:

Lake Acigöl "Denizli"

The saline Lake Acogöl is located in an active graben basin, and is a perennial lake. It has becorne a saline lake by recharging rain water, ground water, and hot springs throught its evolution. In addition, besides volatile transferes of Pliocene aged alkaline basaltic volcanism and solfataric sulfur deposits of the same volcanism are important rechange sources.

Lake Bolluk and Lake Tersaken

By disconnecting from the ancient Tuzgölü basin, these lakes continued their specific evolutions and reached their own hydrochamical stages. Lake Bollum, being closa to the volcanic center, with its hot springs and travartine pinnacles, is a typical spring fed perennial saline lake.

Lake Tersakan, howaver, does not hava travertine pinnackles that can be seen at the surface. This lake shows the characteristics of Lake Tuzgöl,129 and Lake Bolluk, having gypsum occurences and Na, SO_4, and Cl concentrations.

The Na:Cl ratio does not change in all waters of the inflow and lake brina, for the lakes. For this reason, when the Na:Cl line is used as a reference, HCO_3 + CO_3 depletion is observed in the brines of all of the lakes. This is related to tha carbonate precipitation. K remains constant in all inflows and brines. SO_4 is depleted in Lake Acigöl water, because of mirabilite production. In Lake Bolluk, howaver, no SO_4 deplation is observed because the springs of Lake Bolluk are enriched in SO_4 and this makes up the SO_4 and this makes up the SO_4 loss caused by mirabilite production.

HIGH-PRESSURE/LOW-TEMPERATURE METAMORPHISM IN THE EXTERNAL HELLENIDES (CRETE, PELOPONNESE)

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High-P/low-T metamorphic rocks are found as coherent sheets at the base of the nappa piles of Crete and tha Peloponnese. P-T estimates for the Plattenkalk Series in the lowermost tectonic position are near 10 kbar and 350° C in Central Crete and even higher in the Peloponnese. The overlying Phyllite-Quartzite Unit also shows a gradation in P-T conditions of metamorphism from E-Crete (320±40° C, 8±3 kbar) via W-Crete (400±40° C, > 10 kbar) to tha Peloponnese (450±30° C, 17±4 kbar). Lower-grade high-pressure metamorphism is indicetad for the Rawdoucha and Tyros Beds in the