Seas around Turkey

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Eastern Mediterranean and Cyprus

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The Levant basin has thinned continental or oceanic crust:

1. 1500-2000 m water depth
2. Data from seismic refraction
3. Levant continental margin – an old passive margin

The Levant basin probably represents a relict of the Triassic-Jurassic Neo-Tethyan ocean
Miyosen tuz tektoniği
During the latest Miocene (Messinian) Mediterranean became dry and large thicknesses of salt was deposited at several kilometers below sea level.

Mediterranean was a desert!

Messinian crisis
Section across a continental-margin subduction zone (Hamilton, 1988)
Mediterranean Ridge

A huge accretionary complex
Eratosthenes seamount:
a small continental fragment in collision with Cyprus

The Miocene uplift of Cyprus is related to this collision
Antalya Basin:

A north-tilted «back-arc» basin behind the Florence Rise
Three major tectonic units of Cyprus:

1. Troodos ophiolite and related units
2. Mesoira basin
3. Beşparmak (Kyrenia) mountains
Cleintauer et al. 1977, Robertson and Woodcock, 1982
Conclusions:

1. The Levant and Herodotus basins in the southern Eastern Mediterranean probably have oceanic crust. The oceanic crust is Triassic or Jurassic in age and constitutes a relict of the Neo-Tethyan ocean.

2. The Eastern Mediterranean Ridge is a immense accretionary complex formed during the northward subduction of the Eastern Mediterranean oceanic lithosphere.

3. The Beşparmak Mountains in the northern Cyprus constitute the southern extension of the Taurides, the Mesoira basin is an unusual type of «fore-arc» basin, and the Troodos ophiolite is a Late Cretaceous oceanic crust.

4. In the present tectonics, Cyprus lies within the Anatolian plate just north of the plate boundary; the plate boundary is transform to subduction type.

5. Cyprus is undergoing active collision with the Eratosthenes seamount in the south.
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