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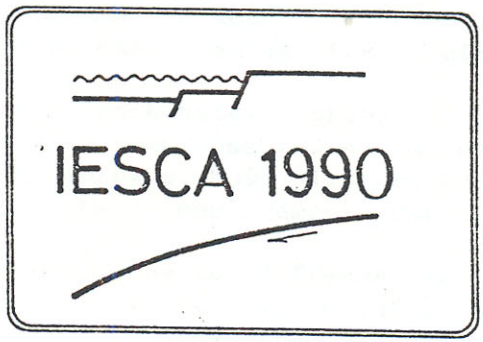

ABSTRACTS

PRE-CONGRESS EXCURSIONS	27-30 SEPTEMBER 1990
SYMPOSIA and SESSIONS	1- 6 OCTOBER 1990
POST- CONGRESS EXCURSIONS	7-10/11 OCTOBER

MIOCENE TECTONISM IN KOS, DODEKANESE ISLANDS

by

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The geology of the island of Kos is very important for understanding the tectonic events in the eastern part of the Hellenic arc during Miocene times and also for correlating the tectonic units of the Hellenides with those of the Taurides.

The geology of Western Kos in the peninsula of Kefalos shows a relative autochthon unit, made of upper Cretaceous Rudist bearing limestones, overlain by a Lower - Middle Miocene molasse which can be correlated to the molassic outcrops of the Cyclades and the Mesohellenic basin to the NW and also to the outcrops of the Tavas basin along the southern border of Menderes massif to the NE.

Tectonic klippen of neritic carbonates, probably belonging to the Tripolis unit of the Hellenides have been observed at the eastern part of Kefalos peninsula overlying the molasse. Some olisthostromatic beds below the Tripolis carbonates indicate their emplacement during the molassic sedimentation.

The geology of Eastern Kos comprises two different tectonic areas. The easternmost part of Kos is made of a typical wildflysch with several hundreds of meters thickness, containing abudant olistholites of both neritic and pelagic Mesozoic sediments. Some neritic carbonates ressemble the Tripolis facies rocks whereas most of the pelagic sediments are typical lithofacies of the Pindos unit. This easternmost part is separated by a N-S strike - slip fault zone from the highest area of the Dikeos mt. where three tectonic units occur:

i) the relative autochthon unit of Dikeos, comprising a metamorphic Paleozoic basement and a probably Mesozoic marble cover. This unit can be correlated to some units of the Taurides which include pre - Alpine basement rocks,
ii) the Tripolis nappe with Mesozoic - Eocene neritic carbonates and Eocene flysch and
iii) the Pindos nappe with pelagic Mesozoic sediments.

The occurence of the Lower - Middle Miocene molassic marine sediments as well as the Upper Miocene continental sediments and the Upper Miocene monzonite of Central Kos permit to establish two different tectonic episodes:

i) the nappe emplacement along the N-S direction during Early - Middle Miocene and
ii) the local back - thrusting with intense gravity aspects of the tectonic units during Late Miocene together with the uplift of the monzonite pluton which has verticalised the previously sub - horizontal thrust planes.