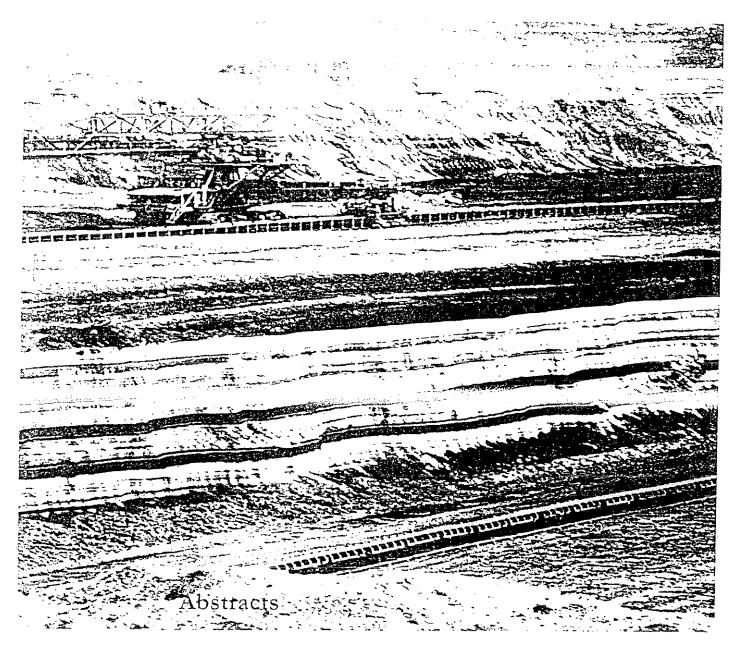
REGIONAL COMMITTEE ON MEDITERRANEAN NEOGENE STRATIGRAPHY



INSTITUTE OF GEOLOGY & MINERAL EXPLORATION (IGME) DUPT OF GUOLOGY & GEOLOGICAL MAPPING

ARISTOTLE
UNIVERSITY OF THESSALONIKI
DEPARTMENT OF GEOLOGY

Study of the Upper Miocene fauna of Faneromeni section, Eastern Crete. Biostratigraphical implications and Cyclostratigraphical Patterns

A. ANTONARAKOU, M.D. DERMITZAKIS, H. DRINIA, M.V. TRIANTAPHYLLOU, N. TSAPARAS

The Faneromeni Section is located along the north coast of Crete just northwest of Sitia. It consists mainly of very well exposed conglomerates, sandstones and blue-grey marks which belong to Faneromeni Formation (GRADSTEIN, 1973).

The studied section is more than 100m, thick and is composed of open marine sédiments that show cyclic alternations of either whitish-coloured carbonate-rich and grey-coloured carbonate-poor marls, or homogeneous marks and brownish-coloured beds termed sapropels.

In addition shoreface sandstones with representatives of *Clypeaster* and Pectinidae are found.

A transition from open-marine mads to shallow-marine carbonates marks the uppermost part of the section.

The Faneromeni Section yielded a good paleomagnetic signal as the position of a number of polar reversals have been recognized.

The macro and microfaunal paleoecological analysis led to the conclusion that the above mentioned sédiments deposited in a warm environment in the subtropical-tropical zone. The presence of the *Clypeaster* species indicates that the depth of the deposition of the sandstones was about 300m. The included microfauna in the openmarine bluish mads indicates a pelagic deep environment.

The objectives of this work are:

- 1. to critical overview the existing cyclostratigraphical pattern of the section and
- to determine it biostratigraphically, based on megafossils, planktonic foraminifera and calcareous nannofossils.

Dept. of Geology, Section of Hist. Geology-Paleontology, University of Athens, Panepistimioupolis, 15784 Athens