

STRATIGRAPHY AND SEDIMENTARY PATTERNS OF THE FRACHTI HILL CRETACEOUS, ARGOLIS, GREECE

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The Frachti hill, NNW of Kranidhi, eastern Peloponnese, is part of the Sub-Pelagion zone of the Internal Hellenids.

The Cretaceous carbonate succession was deposited on dolomitized Late Jurassic platform carbonates. The Jurassic age is evident from a rich stromatoporoid community (e.g. *Ellipsactinia*). It is accompanied by corals, *Chaetetidae* and *Tubiphytes*. The Cretaceous succession has a thickness of over 450 m. It was subdivided into three parts having different facies:

The basal 20 m consist of gray, plated micritic limestone with desiccation cracks. It is of freshwater origin and contains characeans and ostracods.

The freshwater limestone is followed by a few meters of transitional beds and by a micritic limestone above. This limestone bears *Salpingoporella* and was deposited in a non agitated lagoonal environment. It is followed by the rudistid sub-unit, which has a thickness of 340 m. This subunit was deposited under slightly agitated water conditions, just above the wave base. The constant appearance of sponge spicules together with rudists or between rudist beds suggests a platform which was temporarily bordered by a front reef. Therefore, the lagoon was only partly protected.

In the lower part of the rudistid subunit, the wackestone texture is predominant. After 38 m it is replaced by packstone and grainstone with brackish-water intercalations and desiccation cracks; this indicates slightly shallower water depths. The rudist subunit is rich in foraminifera, especially in *Textulariidae*, *Orbitolinidae* and *Miliolidae*. Their occurrence is inversely proportional to the appearance of rudist fragments.

Due to a rapid rise in the sea level, the rudist platform is succeeded first by slope sediments consisting of alternating platform and pelagic elements and finally by pelagic sediments. In both facies, planktonic foraminifera such as *Favusella*, *Rotalipora*, *Praeglobotruncana* and *Globotruncana* are predominant.

Praechrysalidina infracretacea, *Debarina hahounerensis* and *Sabaudia minuta* suggest an Albian age of the basal Cretaceous beds of the Frachti hill section. A major part of the succession is of carbonate platform origin. The platform was drowned during the Middle Cenomanian (zone of *Rotalipora reicheli*).

The succession was evaluated by the authors in terms of sequence stratigraphy.