

Paper Number: 3861

## Jurassic reef events in Moroccan Atlasic domain (Middle Atlas and Central High Atlas in particular)

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The Jurassic deposits in the Moroccan Atlas constitute one of the sedimentary records that can provide us the precious data on reef events that characterize this period of the Mesozoic.

The recent works of the past decades allow us to enhance our knowledge of the Jurassic reefs in the Atlas domain, in particular their age, palaeogeographic distribution and characteristics.

Numerous localities with sponge-microbial mud mounds, coral reefs, and lithiotid bioherms are recorded from the Middle and High Atlas regions. These different organic constructions can occupy different palaeogeographical positions: upon the block heads of basins' center; in slightly deeper positions, at the basin platform junction or on adjacent platforms in the middle of coastal area.

The main episodes of reef building are as follows:

**(1) SINEMURIAN:** The Lower Liassic reef buildups are characterized especially by sponge-algal mounds developed in open marine conditions towards the Lower-Upper Sinemurian boundary.

**(2) PLIENSBACHIAN:** Both in Middle Atlas and High Atlas, large reefal development occurs in the Pliensbachian. These deposits contain magnificent buildups constructed by bivalves such as: *Lithiotis*, *Cochlearites*, *Lithioperma* or *Opisoma*. Most of these organisms are in a vertical life position - buried alive in muddy sediment.

**(3) TOARCIAN:** During the recent years, bioconstructions of the Upper Lias were highlighted. They consist of bioherms coralline buildups dated to the Late Toarcian. These reefs occur along the palaeostructures, on the top of tilted blocks.

**(4) AALENIAN-LOWER BAJOCIAN:** In Aalenian-Lower Bajocian, the reefs are developed essentially at the junction between basin and platform. They consist in a coral reefs installed in a carbonate ramp system in progradation.

**(5) UPPER BAJOCIAN:** The Upper Bajocian buildups mark the installation of a brand new carbonate platform with shallow-water. They are characterized by corals that are associated to some species of sponge, algae, and bryozoan. This last reef event, announces the end of the Jurassic sedimentary cycle corresponding to the final marine transgression of Bathonian age in Moroccan Atlasic Domain.

Those different reef events can be linked with general fluctuations of marine level, tectonic disturbances, and paleoclimatic conditions and paleoceanographic.

This work is a contribution to the International Geoscience Programme (IGCP) Project 632 *"Continental Crises of the Jurassic: Major Extinction Events and Environmental Changes within Lacustrine Ecosystems"*

