

On the Intracarixian Unconformity Into Initial Carbonates Platform of the Ouarsenis Block (Tellian Domain, Algria): Signification and Consequence

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The Ouarsenis area is localised on southern border of external tellian domain. Here, the tectonic has provoked a local evolution of the Liassic initial platform.

The carbonate in the Ouarsenis (Algeria) was deposited at the beginning of the Jurassic period by the "Carbonate of Kef Sidi Amar" probably during the Late Sinemurian-Early Pliensbachian (Early Carixian) belonging to the Alpine belt. Three lithostratigraphical members superposed : lower dolomites, calcareous or dolomitic tidalites and massive oolitic limestones.

The Late Carixian (Ante-Demonense zone) is interrupted by a forced regression documented by a type 1 unconformity. The sedimentologic data are numerous varied and, often, spectacular. They include several types of emersion markers: tidalites, loferites of teepees, desiccation breccias, vadose-pisolites. These figures document erosion (incisions) and karst (widening of desiccation or tectonic fissures) episodes associated with magmatism. It has been followed by a sea-level fall documented by several meters incisions filled by a fluvial sequence (conglomerate, sandstone, argileous and pedogenetic clay with glaebules). After this episode, the platform became uneven and shoals differentiated from more subsiding small umbilics. In this sitting, the "Djorf Touka carbonate Formation" (Middle and Lower Carixian) has been accumulated. The detrital material proves that the platform has partially emerged and formed, at the same time, a sort a nearby palaeogeographic cordillera which has received a strong erosion. This sedimentation suggests, also, a large latitudinal extension of the warm climate and strong contrast of humidity.

The initial platform environment marks the beginning of the individualisation of the basins inside of the western Tethys.

Key words: Unconformity, Karstification, Emersion, Incision, Carixian, Carbonates, Ouarsenis