

Microbial reefs from the late Viséan of the Jerada Synclinorium (NE Morocco)

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In spite of the general late Viséan transgression in Morocco, which introduced widespread platform carbonates, bioconstructions from that time slice are rarely reported. A notable exception are spectacular late Viséan reefs in the basin fill succession of the Jerada Synclinorium, NE Morocco (Huck et al. 2006, Aretz et al. 2007). They share similarities in respect to framework facies, sizes, and depositional environment with bioconstructions from Algeria, Britain, France, and Eastern Australia. Three distinctive reef intervals are differentiated along the southern flank of the synclinorium. The oldest reefs are olistolites within the Oued el Koriche Formation, which represents toe of slope facies. They might attain sizes of several thousands of cubic meters. Reef framework is constructed by siliceous sponges, microbialites, and subordinate bryozoans. Complex cavity systems are widespread. Reefs of the same fabrics occur in situ up-section in the mixed carbonate-siliciclastic Koudiat es-Senn Formation, which forms a single shallowing-upward cycle completing the basin fill. Surrounding carbonate facies indicates initiation of reef growth between storm wave base and fair weather wave base. The reefs always consist of a rigid, self-supporting sponge-microbe framework. During shallowing biodiversity increased, reef fabrics diversified, and bedded flank facies developed. Especially bryozoans and rugose corals became important. Reef formation ceased with deposition of cross-bedded crinoidal and oncolitic grainstones/rudstones, which contain undifferentiated *Girvanella* patch reefs. At the northern flank of the synclinorium, a single coral patch reef is recorded within oolitic shoal deposits from the upper part of a second shallowing-upward cycle of the Koudiat es-Senn Formation, not developed in the south.

Aretz et al (2007): Les bioconstructions du Viséen supérieur (Carbonifère) du Bassin de Jerada (Maroc oriental). – 21ème Réunion Science d la Terre, Dijon 2006: 227.

Huck, S. et al. (2006): Facies and depositional setting of Mississippian (Late Viséan) microbial mounds in the Jerada massif, NE Morocco. – Kölner Forum Geol. Paläont., 15, 43-44.

Keywords: Morocco – Carboniferous – microbial reefs