THROMBOLITES IN THE SALITRE FORMATION (LATE PROTEROZOIC) - CHAPADA DIAMANTINA, BAHIA, BRAZIL

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Seven facies was identified in Salitre Fm. extending from the supratidal through intertidal and subtidal zones: laminated calcilutites, microbial laminites, columnar stromatolites with beta-parallel ramification, columnar stromatolites with alpha-parallel ramification, sigmoidal oncolitic calcarenites, thrombolites, and carbonate slope rhytmites. The bioconstructions analyzed, occur in mounded bioherms (1.0 m in height), in a laterally continuous facies belt. Macroscopically, vertical sections show regular, elongated dark colored grumous structures (0.2 cm in diameter), with fan-like arrangement. In plan view, the framework appears to be composed of dense, irregular, dark-colored bushes, with a variety of geometric shapes and a micritic texture isolated to coalescent. The void space between the clots are filled by sparry calcite cement. Microscopic analysis of thin sections in transverse and longitudinal views, reveal that the grumous clots have complex internal microstructure composed by different types of organization of mottled and variegated organic matter. SEM analysis showed a presence of calcified nonnobes, that could propably contribute for the development of the structure. These bioconstructions of the Salitre Fm., lack laminae, and have a primary clotted fabric, and are therefore, distinct from stromatolitic and dendrolitic fabrics. The bioconstructions was interpreted in this study as thrombolites, but could correspond to another kind of microbialite, not yet described in the world.