

## THE LATE NEOPROTEROZOIC ARARAS CARBONATE PLATFORM IN THE SOUTHWESTERN AMAZON CRATON AND NORTH PARAGUAY BELT

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**RESUMO:** The end of the Neoproterozoic era concentrate the most pronounced climate and evolutionary changes of the Earth history recorded mostly in carbonate rocks, distributed in several cratons worldwide. In the southwestern Amazon craton, Brazil, stratigraphic and isotopic analyses in the Neoproterozoic Araras Group revealed a pré-collisional passive margin platform deposits arranged in three depositional sequences, composed of megacycles, meter-scale cycles and events beds. The first sequence is the cap carbonate sequence which ubiquitously overlies glacial successions of Puga Formation, correlated to the last glaciation event of Cryogenian (635 Ma). The basal Araras Group is a cap carbonate composed of dolostones and limestones (Mirassol d'Oeste and lower Guia formations) with negative excursions of  $\delta^{13}\text{C}$  and anomalous sedimentary structures as plumb stromatolite, tube structure, megaripple bedding and aragonite-pseudomorphs crystal fans deposited in  $\text{CaCO}_3$  oversaturated deep water. The sharp contact between diamictite and dolostone, suggests abrupt transition from icehouse to ultragreenhouse conditions associated with a post-glacial sea-level rise. The cap carbonate deposition was replaced by deep shelf muds and shales (Upper Guia Formation) that indicated an expressive flooding period of the basin. Upsection the basin become more shallow influenced by storm as indicated by dolostones with hummocky/swaley cross-stratification (Serra do Quilombo Formation). The last deposition event of Araras platform refers to the installation of extensive sabkha and arid tidal flat (Nobres Formation) preceding the episode of pronounced sea level fall and emergence of the basin, a prelude of initial phase of collision event that originated the Neoproterozoic Paraguay belt

**PALAVRAS-CHAVE:** ARARAS GROUP; NEOPROTEROZOIC.