

## **The Deep Sedimentary Levee of São Tomé (SE Brazil Basin): Depositional Processes During the Upper Quaternary.**

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The Sao Tomé levee is located on the E Brazilian rise at the foot of the Sao Paulo Plateau escarpment (3500-4000m). This sedimentary body is elongated N-S, more or less parallel to the margin contour. This area is swept by the NADW, flowing southward, and the AABW, flowing either towards NW or southward. This deposit is expected to be the result of the interaction of turbidity and contour currents. Detailed analysis of two cores points out the modifications of depositional conditions related to both climatic and sea-level global variations occurred during the last 500.000 years. The deposits show predominant hemipelagic and pelagic sequences associated with thin-bedded fine-grained turbidites and laminated contouritic muddy sequences, underlined by black manganiferous material and frequent erosional surface. The contouritic sequences record episodes of higher bottom circulation, and are mainly observed at the transition between Glacial and Interglacial periods. The sedimentation rates are low but slightly higher at the top of the levee. They are 2 or 3 times higher during Glacial periods than during the Interglacial ones due to more important terrigenous supply. The very low Holocene sedimentation rate is probably due to scarce sediment supply. The occurrence in the hemipelagic sequences of the 2 cores of a microfauna association composed by *Cibicides wuellerstorfi*, *Pyrgo depressa*, *Quinqueloculina*, characterises NADW influence. Episodes of more abundant *Cibicides wuellerstorfi* are related to more oxygenated conditions observed during high sea-level and suggest a more active circulation of the NADW during these periods.