

CONTROVERSIES ON THE TECTONIC EVOLUTION OF THE RECÔNCAVO-TUCANO-JATOBÁ RIFT, NORTHEASTERN BRAZIL

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This paper attempts to contribute in clarifying some of the most disputed issues on the tectonic evolution of the Recôncavo-Tucano-Jatobá Rift, an aborted branch of the Lower Cretaceous Eastern Brazilian margin. In the last two decades, reflecting similar controversies worldwide, the following points have been debated in the literature:(1) the degree of basement control on the rift architecture, not fully understood along some major faults;(2) the direction of rift opening, if oblique or orthogonal to the main structural trends of the rift;(3) the time of rifting onset, placed at or before the deposition of a thick wedge piled up near the main rift border;(4) the kinematics along the main transfer zones, an issue where the controversy increases according to the amount of data;(5) the sense of propagation of the rift border, if toward or away the footwall;(6) the existence of a basal detachment beneath the rift, which has not been imaged on a recently shot deep seismic line ;(7) the significance of inverse faulting, related either to inversion tectonics or localized transpression along transfer faults;(8) the genesis of the unconformity between syn- and post-rift; generally correlated to the break up unconformity;(9) the mechanism of uplift that led to the present level of rift exhumation.