

## **PALEOCURRENTS AND STRATIGRAPHIC SEQUENCES OF THE ARARIPE BASIN, NORTHEAST BRAZIL**

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The Araripe basin is composed of four unconformity-bounded sequences. Each sequence shows different alluvial paleocurrent pattern and bears no relation to the geometry of their areas of occurrence, suggesting that these areas are fragments of distinct and originally larger basins. Sedimentary flow direction towards north in the Lower sequence (Cariri Formation) is similar to the flow directions in the Paleozoic units of the neighbouring Tucano-Jatobá and Parnaíba basin. The paleocurrent pattern is constant regardless of the several fault blocks, suggesting that structural framework is a basin-modifying tectonic product. During the Gondwana rifting event, precambrian faults were reactivated, defining a horst and graben structural style. The Jurassic-Neocomian rift sequence (Missão Velha and Abaiara formations) is preserved in two depocenters and its paleocurrent pattern indicates a southward paleoflow towards the Recôncavo-Tucano basin. The fluvial deposits (Barbalha Formation) present at the base of the post-rift Aptian-Albian sequence portray southeast paleoflows towards the Sergipe-Alagoas and Tucano-Jatobá basins. An opposite direction is suggested for the Albian marine transgression in the Santana Formation, implying a connection with South Atlantic Ocean. Although the sea level was in a global eustatic rising movement, the Albian to ? Cenomanian deposits of the Exu Formation record the return to continental conditions with rivers flowing westward to the Parnaíba basin. Such rearrangement in the continental paleodrainage was consequence of uplifting of the Northeast Brazil after rifting processes.