

DRAINAGE NETWORK ANALYSIS OF AREA BETWEEN FORTALEZA AND PARACURU/CEARÁ-NORTHEASTERN BRAZIL.

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The discontinuities and anomalies in the drainage can be evidenced in the morphotectonics studies. These studies were carried out in Cenozoic and Precambrian areas, located in the coastal zone between Fortaleza and Paracuru, Ceará State, Brazil. The drainage data have been compiled from topographical maps (1:100.000) of Fortaleza, São Pedro, Paracuru and São Luiz do Curu. The following analysis were defined to show the morphodynamic evolution: morphologic, which defines the drainage anomalies and patterns; morphometric, which establishes the arrangements of the drainage network; and morpho-structural to correlate the lineaments with the drainage developed in the research area. The observed patterns present a dendritical configuration for the basement, a centrifugal one surrounding the Juá-Conceição, Mineiro, Preta and Maranguape mountains and a parallel one over the sedimentary cover. The drainage anomalies identified were curves, turns, schematics, place braiding and asymmetric channels. The morphometric sets show the NE-trend for the regional rivers of 4th and 5th orders, NW and E-W in the 3rd and 2nd orders and N in the 1st order rivers. The last one represents a recent pattern. Integration of the morphotectonic and morpho-structural analysis show that the drainage network behavior, accentuated in the NE-trend, can be correlated with the Brasiliano Cycle. The Cretaceous deformation resulting to the opening of the South Atlantic, can be comprovated by the E-W and NW trends. Finally, the late Tertiary reactivation related to the Messejana magmatism, could be associated to the N trend.