

PALEOWINDS IN THE PIRAMBÓIA FORMATION, PERM-TRIASSIC OF THE PARANÁ BASIN

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Outcrop-based facies analysis of the Pirambóia Formation, composed mainly by quartzarenites, indicate predominance of eolian deposition in dune fields (barchans) and interdunes deposits. Paleowind studies were carried out in highway and mine expositions in São Paulo and Paraná States, Southern Brazil. The azimuth data were divided, according to a thickness criterium, in lower and upper portions of the formation. Paleowinds in the lower portion of the Pirambóia Formation in São Paulo State show directions towards SE and SW, whereas in the Paraná State they migrate towards NE and SW. The SW trend in Paraná State was found only in low angle (100) cross-stratification, related to dune toe set or sheet deposits. Second order bounding surfaces, with SW low angle dip, can be attributed to draas existence. The upper portion is characterized by SW trend in the Paraná State, except in the central region. In São Paulo State the azimuth pattern shows N, NW and SW directions, the later in the Mid-South. It is possible that the direction dispersion is related to the paleorelief and/or basin geometry. The transitional character of the lower contact with tidal deposits of the Passa Dois Group indicates a proximity with the paleocoast. This interpretation allows admit the influence of onshore winds in the direction dispersion, at least in the initial stages of the Pirambóia sedimentation in Paraná and in the later stages in São Paulo.