

## **BRAZILIAN BARREIRAS FORMATION IN PORTUGAL?**

BARBOSA, B. P. Instituto Geológico e Mineiro, 4466-956 S. Mamede de Infesta, Portugal

The Barreiras Formation is a well known Brazilian continental tertiary unit. In the northeast and southeast, it outcrops as a sandy unit resulting from coalescent alluvial fans. Lower and upper limits define basinal unconformities. In the Lower Tagus and Mondego basins in Portugal, the vertical and lateral arrangement of the Pliocene continental facies shows a migration of proximal conglomerate facies prograding to sandy distal aggrading facies. In the Tagus basin the distal sandy facies corresponds to a wet progradation, from NNE to SSW, resulting from coalescent alluvial fans, clearly outcropping in the Setubal Peninsula. This suggests an important control in the deposition of those siliciclastic units in both aforementioned basins. No biochronostratigraphic references have yet been discovered. These units are also clearly controlled by two basinal unconformities as in the Barreiras Formation: the lower limit is defined with Cenozoic and Mesozoic deposits while the upper is made with Quaternary deposits. These limits clearly point out to the existence of two correlative allostratigraphic units (chronostratigraphic units). By comparing the lithology, the architectural arrangement and the stratigraphy of the Barreiras Formation with those of the Lower Tagus and Mondego units and taking into account their basinal unconformity limits, all these units can be considered equivalents and correlatives. All this suggests eustatic change as an important control on clastic deposition of those units, on both sides of the Atlantic Ocean, probably during the Pliocene.