

Two fine-grained eolian formations in the Quaternary of the Brazilian Nordeste

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Two widespread fine-grained eolian formations occur in the Upper Quaternary of Ceara and W Paraiba, in NE Brazil. Such deposits, which have loam to sandy-loam grain sizes, cover discordantly metamorphic, igneous and sedimentary rocks of Precambrian and Jurassic-Cretaceous ages. The older deposit is the *Cariutaba Formation*, a dark red, friable, porous, powderish, massive tropical loess. The thickness varies between 1 m and 6 m. It occurs in numerous localities of Ceara, particularly in Chapada do Apodi and in the Farias Brito area. TL datings indicate ages of 21.39 ± 0.03 ky B.P. at the base and 8.75 ± 0.01 at the top.

The second deposit, the *Porteiras Formation*, occurs in association with patches of aeolian fine sand. It is a loam to sandy loam, massive, powderish, friable, with vertical disjunction. In the type profile, located near Brejo Santo, subfussion processes have been observed. All field characteristics of *Porteiras Fm.* indicate a typical loess. The age is Late Holocene, with TL datings of 2.59, 2.20 and 2.38 ky B.P. in different localities.

The main interest of this contribution is to note the geological activity of wind as a sedimentation agent of fine-grained materials in a dry tropical region, not related to glacial phenomena.