

## **PRELIMINARY STUDIES OF A LOESS FROM MIDDLE PLEISTOCENE IN THE PIEDEMONT OF MENDOZA, ARGENTINA AT 33° S.**

TROMBOTTO, D. & REGAIRAZ, M. C.

In the present work characteristics for identification of a loess profile at Las Carreras Valley (33°06' S, 69° 18' W), on the foot of the Cordón del Plata, an eastern range of the Andes, at 2200 m a.s.l in Mendoza are described. The present climate is steppe with a M.A.T. of 7.9 °C and M.A.P. of 307 mm. The loess was dated with thermoluminescence to be of 234 ka +/- 18, which assigns it to the Middle Pleistocene. The material has first been analysed sedimentologically, micromorphologically and pedologically in order to study it under stratigraphical and paleoclimatical aspects afterwards. The loess consists of eolian sediments with a high percentage of quartz, volcanic ash and feldspar corresponding to arid or semiarid environments. The loess is overlain by gravely fluvial deposits. On this loess, soils were developing at different moments according to climatic variations and indicating temperate climates. It was possible to identify a series of characteristic paleosoils within the loess profile, five of which are being analysed in detail. The paleosoils are silt loam compound principally of silt (51.6 - 80.2 %) and very fine sands mainly. The granulometry seems to be related to cryogenic processes. The loess holds important carbonatic levels (2,7 to 22.4%) and secondary calcareous concretions and concentric nodules with needle-shaped calcite, which give rise to various possible geneses. Moreover the profile reveals some fossils: *Ctenomys* and *scarabaeus* nests which might give evidence of the environment during the deposition of the sediments.