

FROM A CLOSED LAKE-ALLUVIAL FAN TO AN OPEN BRAIDED-FLUVIAL DEPOSITIONAL SYSTEM: TECTONIC FACTORS CONTROLLING THE SEDIMENTARY EVOLUTION OF THE SABINA BASIN (PLIO(?)-PLEISTOCENE, CENTRAL ITALY).

BASILICI, G. Institute of Geosciences, State University of Campinas - UNICAMP, Campinas, Brazil.

The evolution of the continental Plio-Pleistocene Sabina Basin (near Roma) was linked to tectonic factors. This basin is made up of two parts: one with main direction NNW-SSE and the other W-E. The maximum thickness of the sedimentary succession is 600 m, it is divided in a lower (Ornaro Basso Unit - OBU) and an upper portion (Monteleone Sabino Unit - MSU). The OBU is formed by lacustrine limestone, interlayered with conglomerate deposits, which thickness increases toward the margins of the basin; the conglomerates represent different alluvial fans with restricted catchment area, entering in a close shallow lake system. The MSU is made up mainly by conglomerates. The MSU is an open gravelly braided-fluvial system with greater catchment basin as regards the OBU, as testified by the provenience of the clasts and by the paleocurrent data. The transition from OBU and MSU is generally abrupt, by an erosive surface, but locally the units are interlayered, testifying a continuous process of sedimentation. The rapid, but continuous, transition between the two units is attributed to tectonic phenomena, that modified the morphology of the area. Fault system W-E directed, delimiting the W-E basin, cut an older NNW-SSE fault system, delimiting the NNW-SSE basin; moreover the W-E basin part does not contain the older unit OBU. That suggests that the W-E basin part formed successively, causing the spreading and complete reorganization of the entire basin, from a closed lake-alluvial fan to an open fluvial depositional system.