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Extending westward the loess basin between the Alps and the Mediterranean region: micromorphological evidences from the slope of the Ligurian Alps (Northern Italy).

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In the framework of a larger study, focused on the Quaternary evolution of selected areas of the Ligurian Alps (Northern Italy), one representative loess-paleosol sequence has been identified and characterized in detail, by mineralogical and micromorphological analyses, in in order to clarify his genesis, and to discuss his palaeoclimatic significance in relation to the Quaternary climatic fluctuations of the Ligurian Alps. The final aim of this study is essentially to establish a chronological succession of pedological and sedimentary events in order to interpret the environmental significance of each phase. These successive events have affected the soil at different levels. Most of the trasformation appear to have been recorded at the microscopic scales and consequentaly soil micromorphology can be considered as the most efficient approach for studing the loess-paleosol sequence. The different phases of erosion, deposition and soil formation were recognized by detailed examination of thin section. The micromorphological evidence supported also by the mineralogical analyses, suggest a polygenetic origin for the profile, affected by different superimposed processes, acting in different environmental conditions on distinct parent material: in fact the deeper unit was produced by a strong pedogenetic phase, involving the bedrock parent material and leading to the development of pedogenetic body showing characteristics like present day strongly weathered subtropical to tropical area soils (i.e. fersiallitic to fer-

rallitic soil), while as regards of the upper units, is clear that multiple erosional events, followed by depositions of material developed from loess blankets, have took place. These materials shows features which are comparable to Lateglacial interstadial soils of the middle Europe, which weren't erased by the present day pedogenesis In conclusion, the present work on loess-paleosol sequences ag Ligurian Alps is very important because it extends the already studied loess sedimentation basin between the Alps and the Mediterranean region.