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Nota di contenuto	Soils of the Past An introduction to paleopedology; Contents; Preface to the second edition; Preface to the first edition; Acknowledgments; Part 1: Soils and paleosols; 1 Paleopedology; 2 Soils on and under the landscape; Soils and paleosols on the landscape; Quaternary paleosols; Paleosols at major unconformities; Paleosols in sedimentary and volcanic sequences; 3 Features of fossil soils; Root traces; Soil horizons; Soil structure; 4 Soil-forming processes; Indicators of physical weathering; Indicators of chemical weathering; Indicators of biological weathering; Common soil-forming processes 5 Soil classification FAO world map; US soil taxonomy; A word of caution; 6 Mapping and naming paleosols; Paleoenvironmental studies; Stratigraphic studies; Deeply weathered rocks; 7 Alteration of paleosols after burial; Burial decomposition of organic matter; Burial gleization of organic matter; Burial reddening of iron oxides and hydroxides; Cementation of primary porosity; Compaction by overburden; Illitization of smectite; Zeolitization and celadonitization of volcanic rocks; Coalification of peat; Kerogen maturation and cracking; Neomorphism of carbonate; Metamorphism

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Part 2: Factors in soil formation; 8 Models of soil formation; 9 Climate; Classification of climate; Indicators of precipitation; Indicators of temperature; Indicators of seasonality; Indicators of greenhouse atmospheres; 10 Organisms; Traces of organisms; Traces of ecosystems; Fossil preservation in paleosols; 11 Topographic relief as a factor; Indicators of past geomorphological setting; Indicators of past water table; Interpreting paleocatenaes; 12 Parent material as a factor; General properties of parent materials; Some common parent materials

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## Sommario/riassunto

It has been 10 years since publication of the first edition of *Soils of the Past*. In that time the subject of paleopedology has grown rapidly, and established itself within the mainstream of geological research. Ancient soils contain vital mineralogical, geochemical, textural, and paleontological information about the continental environments in which they formed. Advances in isotope geochemistry and sequence-stratigraphic models allow more detailed reconstructions of environmental change from paleosols and new insights into diverse topics like atmospheric chemistry, global change, palae

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