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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 Featuresof fossilsoils; 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 classificationFA0 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; Zeolitiation and celadonitiation of volcanic rocks; Coalificationof peat; Kerogen maturation and cracking; Neomorphism of carbonate; Metamorphism

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setting; Indicators of past water table; Interpreting paleocatenae; 12 Parent materialas a factor; General properties of parent materials; Some common parent materials A base line for soil formation13 Time as a factor; Indicators of paleosol development; Accumulation of paleosol sequences; Part 3: Fossil record of soils; 14 A long-term naturalexperiment in pedogenesis; 15 Soilsof otherworlds; Soilsof theMoon; Soils of Venus; Soils of Mars; Meteorites; Relevancetoearly Earth; 16 Earth's earliest landscapes; Oxygenation of the Earth's atmosphere; Differentiation of continental crust; Precambrian scenery; 17 Early lie on land; Did life originate in soil?; Evidence for early life in paleosols,; MotherEarthor heartof darkness?; 18 Large plants and animalsonland Evidence of multicellular organisms in paleosolsHow did multicellular land organisms arise?; Biological innovation or environmental regulation?; 19 Afforestationof theland; Early forest soils; A diversifying landersenand A finer web of life en land; Early forest soils; A diversifying
landscape; A finer web of life on land; The shapeof evolution; 20 Grasses in dry continental interiors; Early grassland soils; How did grasslands arise?; Evolutionary processes; 21 Human impact on landscapes; Human origins; Early human ecology; A tamed landscape; Glossary; References; Index
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