# CATENA

An Interdisciplinary Journal of Soil Science - Hydrology - Geomorphology focusing on Geoecology and Landscape Evolution

**AUTHOR INFORMATION PACK**

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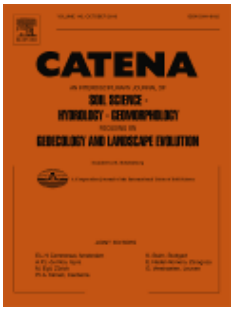


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## DESCRIPTION

*Catena* publishes papers describing original field and laboratory investigations and reviews on **geoecology** and **landscape evolution** with emphasis on interdisciplinary aspects of **soil science**, **hydrology** and **geomorphology**. It aims to disseminate new knowledge and foster better understanding of the physical environment, of evolutionary sequences that have resulted in past and current landscapes, and of the natural processes that are likely to determine the fate of our terrestrial environment.
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## AUDIENCE

Soil Scientists, Hydrologists, Geomorphologists.

## IMPACT FACTOR

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Geomorphology; River science; River management; Hillslope processes; River processes; Environmental management
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geomorphic hazards, interactions between human activity and geomorphic processes, global geomorphic change, land-use assessment and planning, environmental quality indicators.
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soil erosion; soil hydrology; soil degradation; desertification; simulated rainfall
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badlands, water erosion, geomorphological hazard, geomorphic markers, geostatistics, morpho-evolutionary models
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Soil erosion; Soil redistribution processes; Fallout radionuclides (Cs137, Pb210, Be7); Sediment tracing; Fingerprinting techniques; Source of fine sediments; Soil degradation
**J.B.J. Harrison**, New Mexico Institute of Mining and Technology, Socorro, New Mexico, USA
soils; soil landscapes; soil geomorphology; geomorphic processes
**A.E. Hartemink**, University of Wisconsin at Madison, Madison, Wisconsin, USA
digital soil mapping; tropical soils; pedology; soil fertility
**J. Hooke**, University of Liverpool, Liverpool, UK
Geomorphology; Rivers; Coasts; Erosion: Coastal and fluvial management; Floods; Sediment
**C. Kabala**, Wroclaw University of Environmental and Life Sciences, Wroclaw, Poland
soil origin and transformation,mountain soils,soils of polar/subpolar regions ,soils of boreal regions,soil contamination,human iimpact on soils,soil classification (including WRB and Soil Taxonomy)
**J. Latron**, IDAEA-CSIC, Barcelona, Spain
Hydrological response of small catchments (0-10 km2): Hydrological monitoring, rainfall-runoff relationships, runoff generation processes, Modeling. Sediment dynamics in small catchments (0-10km2): Erosion, Sediment transport, Sediment budgets.
**T. Lei**, China Agricultural University, Beijing, China
hydrology; instrumentation; sediment measurement; soil erosion; soil physics
**B. Liu**, Beijing Normal University, Beijing, China
**A. Mirabella**
Soil evolution and weathering processes; clay minerals characteristics and transformation; soil organic matter (humic and fulvic acids) characterization.
**T. Oguchi**, University of Tokyo, Kashiwa, Japan
Hillslope and fluvial geomorphology, GIS
**Y. Onda**, University of Tsukuba, Tsukuba, Ibaraki, Japan
**Y.A. Pachepsky**, Hydrology and Remote Sensing Lab., Beltsville, Maryland, USA
for geoderma: artificial intelligence, artificial neural networks, regression tree, genetic algorithm, pedotransfer function, soil hydraulic properties, soil water flow, solute transport, spatial variability, soil pore space, soil structure, fate and transport of microorganisms, crop simulation.
**X. Peng**, Chinese Academy of Sciences (CAS), Nanjing, China
soil structure; aggregation; carbon sequestration; soil hydrology; soil shrinkage
**J. Poulenard**, Université Savoie Mont Blanc, Le Bourget du Lac, France
Mountain soil and Volcanic soil Sediments sources and Erosion Paleopedology and paleoenvironments
**K. Pustovoytov**, Universität Hohenheim, Stuttgart, Germany
paleopedology, geoarchaeology, soil chronosequences, pedogenic carbonate, radiocarbon dating, stable isotopes
**D.G. Rossiter**, Cornell University, Ithaca, New York, USA
soil geography; soil survey; land suitability evaluation; geostatistics applied to soil and related scieces; urban soils; Caribbean and northern Latin America including Brazil, northeast and southeast USA, northeast Canada, central and north China, Philippines, Thailand, Indonesia, Cameroon, Mozambique, India
**G. Stoops**, Universiteit Gent, Gent, Belgium
soil micromorphology,soil mineralogy, weathering and laterites.
**D. Torri**, C.N.R., Firenze, Italy
soil erosion, raindrop detachment, raindrop transport, runoff detachment, runoff transport capacity, rill erosion, gully erosion; rill and gully channel geometry, soil erodibility, soil shear strength, soil cohesion, soil surface roughness hydraulics friction, vegetation-soil interaction, vegetation effects on soil erosion, biodiversity badlands
**C. Valentin**, IRD - Ambassade de France au Laos, Paris, France

Soil surface crust; Runoff production; Catchment hydrology; Soil erosion; Southeast Asia; West Africa: savannah and Sahelian zones

**B. van Wesemael**, Université Caholique de Louvain, Louvain-la- Neuve, Belgium

Vis NIR spectroscopy, soil organic matter and digital soil mapping

**D.E. Walling**, University of Exeter, Penryn, Cornwall, UK

**R. Webster**, IACR-Rothamsted Experimental Station, Harpenden, UK

Soil science; soil survey; environmental science more generally; geostatistics; statistics more generally.

**X.P. Yang**, Chinese Academy of Sciences (CAS), Beijing, China

Geomorphology; quaternary geology; climate change; desertification; arid landscape, desert

# GUIDE FOR AUTHORS

## INTRODUCTION

CATENA publishes original contributions in the fields of:

**Geoecology**, the geoscientific-hydro-climatological subset of process-oriented studies of the present ecosystem
- the total environment of landscapes and sites
- the flux of energy and matter (water, solutes, suspended matter, bed load) with special regard to space-time variability
- the changes in the present ecosystem, including the earth's surface and

**Landscape Evolution,** the genesis of the present ecosystem, in particular the genesis of its structure concerning soils, sediment, relief, their spatial organization and analysis in terms of paleoprocesses;
- soils: surface, relief and fossil soils, their spatial organization pertaining to relief development
- sediment with relevance to landscape evolution, the paleohydrologic environment with respect to surface runoff, competence, and capacity for transport of bed material and suspended matter, infiltration, groundwater and channel flow
- the earth's surface, relief elements and their spatial-hierarchical organization in relation to soils and sediment
- the paleoclimatological properties of the sequence of paleoenvironments.

*Types of paper*
CATENA publishes multidisciplinary studies as well as monodisciplinary papers that are of interest to other disciplines and are of relevance to landscape studies.

1. Original research papers (Regular Papers)
2. Review articles
3. Technical Notes

Original research papers should report the results of original research. The material should not have been previously published elsewhere, except in a preliminary form.

Review articles should cover subjects falling within the scope of the journal and which are of active current interest. They may be submitted or invited.

A Technical Note is a short article on new developments, significant advances and novel aspects of experimental and theoretical methods and techniques relevant to the scope of Catena. A technical note can also include novel software developments and computational methods. The Technical Note should be used for information that cannot be adequately incorporated into an Original Research Article, and that is of sufficient value to be brought to the attention of the readers of the Journal. The note should describe the nature of the new method, technique or procedure and clarify how it differs from those currently in use, citing relevant literature. Technical Notes should be no more than 5 Journal pages (~5000 words and 2 Figures or Tables). Technical notes are sent for full peer review. Electronic Supplements such as programming code, validation data or user manuals can be added to a Technical Note.

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