Registered Charity Number 1054260

Geomorphological Techniques (Online Edition)

Table of Contents and Guidelines for authors

The aim of this anthology is to create an updated and online version of Geomorphological Techniques. Attached is a basic contents structure which will be visible on the website and indicates the dominant topic area or home associated with each article. Articles will be key word searchable and indexed as in some cases they may be appropriately linked to several sections. The author of each section should provide five key words and indicate other sections under which their article should be linked.

Each article should be approximately 2000 to 3000 words, and be on a specific technique. For example, it might be an adapted version of a PhD thesis methods chapter. It should start with a brief introduction, outlining background and relevance, with the majority of the report summarising the method, various alternatives, strengths and weaknesses, hints and tips for the application of each. The writing should be inclusive of different methods where applicable.

When writing your article please avoid reiterating standard laboratory techniques that are well covered by existing documentation, making plentiful use of references instead.

Formatting follows the style of Earth Surface Processes and Landforms. Please refer to the journal website for guidelines on font, graphics, reference style, etc. A style template will be provided to authors.

Each article should be submitted to the editor (Publications sub-committee secretary) and will be peer reviewed. Your reviewed article will be returned to you with suggestions for improvement. The document will then be converted to pdf format and uploaded onto the Society website. An honorarium of £200 is available for BSG members that author an accepted article. Authors are asked to sign ownership over to the Society.

A suggested Table of Contents is reproduced below, but it is anticipated that this will grow and more than one item are welcomed if they cover a specific aspect of a topic. Articles in preparation are indicated in red.

Part 1: Composition of Earth Materials (generic, not environment-specific)

1.1. Clast properties

1.1.1. Particle size analysis (direct, field and lab. Sieving, settling, laser sizing, Wentworth scale etc.)

1.1.2. Particle form analysis (shape, roundness etc.)

1.1.3. Particle texture (SEM…)

1.2. Bulk properties of soils and sediments

1.2.1. Porosity

1.2.2. Permeability

1.2.3. Moisture content and suction

1.3. Strength of materials

1.3.1. Shear stress (e.g. cohesive strength meter)

1.3.2. Rock hardness (e.g. Schmidt hammer)

1.4. Mineralogical and chemical composition (e.g. AAS, etc.)

1.4.1. Environmental magnetism

1.4.2. Major element geochemistry – XRF, AAS

1.4.3. Minor and REE geochemistry – ICP

1.4.4. Mineral crystallography XRD

1.4.5. Mineral inference – FTIR, NIR, VIS and UV spectroscopy

1.5. Form and Structure of Sediment Bodies

1.5.1. Describing and logging sedimentary sequences

1.5.2. Fabric and structure of clastic sediments

1.5.3. Thin section micromorphology (in glacial sediments)

1.5.4. Imaging sediment structures (x-ray, tomography etc.)

1.5.5. GPR (and other geophysical techniques, e.g. ice radar)

Part 2: Topographic and Spatial Analysis

2.1. Direct acquisition of elevation data

2.1.1. Surveying basics

2.1.2. Total station

2.1.3. dGPS

2.1.4. Airborne LiDAR

2.1.5. Terrestrial laser scanning

2.1.6. Bathymetric methods

2.2. Photogrammetric techniques (including georeferencing of historical maps and rectification of modern and historical aerial photos)

2.3. Digital Elevation/Terrain Models

Part 4: Long-term Environmental Change (dating techniques, etc.)

4.1. Palaeoecology (geomorphology relevant aspects)

4.1.1. Coring methods (soils, bogs, floodplains, lakes)

4.1.2. diatoms

4.1.3. charcoal

4.1.4. pollen

4.1.5. Marine organisms (forams)

4.2. Dating

4.2.1. General context – absolute, relative, radiometric, errors

4.2.2. radiocarbon

4.2.3. Pb210 Am241 Cs236 – short isotopes

4.2.4. U series

4.2.5. Amino acid racemisation

4.2.6. Luminescence

4.2.7. Lichenometry

4.2.8. Dendro

4.2.9. Archaeo and Palaeomagnetism

4.2.10. Cosmogenics

Part 5: Modelling Geomorphic Systems

5.1. Generic and conceptual

5.2. Numerical Modelling

5.3. Physical Modelling

5.4. Statistical Modelling

5.5. Evaluating and testing models

5.6. Environment Specific Models (brief intro on each followed by case notes on relevant tools)

5.6.1. Weathering

5.6.2. Aeolian

5.6.3. Coastal

5.6.4. Fluvial

5.6.5. Glacial

5.6.6. Hill slope/Mass movement

5.6.7. Karst

5.6.8. Lacustrine

5.6.9. Periglacial