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Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Preface ; Definitions ; 1 Introduction ; 1.1 What are we describing and why?; 1.2 Description compared with classification; 1.3 Communication in description; 1.4 Soil meets rock ; 1.5 Health and Safety in description ; 2 History of Description in Codification ; 2.1 Prior to 1970 ; 2.2 The period 1970-1981; 2.3 The period 1981-1999 and the first BS 5930 ; 2.4 Rock weathering; 2.5 1999 and the second BS 5930 ; 2.6 The period since 1999 ; 2.7 Multiple usage of defined terms; 2.7.1 Clay and silt terminology; 2.7.2 Secondary constituent terms; 2.7.3 Loose and dense 2.7.4 Compactness of silt2.7.5 Rock strength ; 2.7.6 Rock weathering; 2.7.7 Comparison of descriptive technology ; 3 Systematic Description ; 3.1 Standard word order ; 3.2 Standard word order in US practice ; 3.3 The multiple sentence approach ; 4 Description of Materials ; 4.1 Principal soil and rock types ; 4.2 Size fractions ; 4.3 Description procedure using flow chart; 4.4 Very coarse soils; 4.5 Coarse soils; 4.6 Particle shape ; 4.7 The coarse soil/fine soil boundary ; 4.8 Fine soils ; 4.9 Classification of plasticity of fine soils; 4.10 The soil/rock

boundary; 4.11 Rock naming
4.11.1 General naming of rocks 4.11.2 Description of coal ; 4.11.3 Naming of carbonate sediments ; 4.11.4 Naming of volcaniclastic sediments ; 4.12 Grain size in rocks ; 5 Relative Density and Strength ; 5.1 Relative density in coarse soils; 5.2 Consistency of fine soils; 5.3 Strength: shear or unconfined ; 6 Structure, Fabric and Texture; 6.1 Structure; 6.2 Fabric ; 6.3 Texture ; 7 Colour ; 8 Secondary and Tertiary Fractions ; 8.1 Secondary fractions; 8.1.1 Secondary fractions in very coarse soils; 8.1.2 Very coarse particles as a secondary fraction; 8.1.3 Secondary fractions in coarse soils
8.1.4 Fine soil as a secondary constituent 8.1.5 Secondary fractions in fine soils; 8.1.6 Multiple secondary fractions; 8.2 Tertiary fractions; 8.3 Description of widely graded soils ; 8.4 Description and classification of particle size grading ; 8.5 Other information ; 9 Geological Unit; 10 Weathering ; 10.1 Weathering of soils; 10.2 Rock weathering; 10.3 Approach 1: description of weathering; 10.4 Approaches 2 and 3: classifications for homogeneous stronger rocks ; 10.5 Approach 4: classification for hetrogeneous weather rocks ; 10.6 Material specific weathering schemes
10.7 Approach 5: special cases 10.7.1 Chalk ; 10.7.2 Karstic limestone ; 10.7.3 Tropical weathering ; 11 Discontinuity Logging ; 11.1 Types of discontinuity ; 11.2 Discontinuity description ; 11.3 Orientation; 11.4 Spacing ; 11.5 Persistence and termination; 11.6 Surface form ; 11.7 Wall strength; 11.8 Aperture and infilling; 11.9 Seepage ; 11.10 Discontinuity sets ; 12 Discontinuity State Recording ; 12.1 Total core recovery ; 12.2 Solid core recovery ; 12.3 Rock quality designation; 12.4 Fracture spacing ; 13 Low Density Soils; 13.1 Organic soils; 13.1.1 Topsoil; 13.1.2 Peat
13.2 Volcanic soils or rocks

Sommario/riassunto

This is a revised and updated version of the highly successful first edition. It continues to provide invaluable practical guidance in carrying out engineering geological logging of soil and rock samples and exposures in the field.

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Titolo	Harmonising rock engineering and the environment : proceedings of the 12th ISRM International Congress on Rock Mechanics, Beijing, China, 18-21 October 2011 / / [edited by] Qihu Qian & Yingxin Zhou
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Descrizione fisica	1 online resource (818 p.)
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Soggetti	Rock mechanics Electronic books.
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Note generali	A Balkema book.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Front Cover; Table of Contents; Preface; Organisation; Muller lecture; From empiricism, through theory, to problem solving in rock engineering; Rocha Medal lecture; Reduction of blast-induced vibration in tunnelling using barrier holes and air-deck; Invited lectures on ISRM 50th anniversary; Fifty years of the ISRM and associated progress in rock mechanics; The next 50 years of the ISRM and anticipated future progress in rock mechanics; New developments of rock engineering and technology in China; Keynote lectures; New rock mechanics developments in China Rock strength and failure: Some common and uncommon issuesDiscontinuum models for dam foundation failure analysis; Discontinuous deformation analysis: Advances and challenges; Synthetic rock mass applications in mass mining; How to select rock mass parameters for analysis and design; Risk oriented design and construction of tunnels; Support of excavations subjected to dynamic (rockburst) loading; Advances in rock dynamics modelling, testing and engineering; Analysis and design methods

Mine-by experiment performed in the Callovo-Oxfordian claystone at the Meuse Haute Marne underground research laboratory (France)
Burgers rock creep around axisymmetric tunnels; Multi-parameter responses of soft rocks during deformation and fracturing and their implications in geomechanics and geoengineering; Fractal approach to determine rock mass strength and deformation; A theoretical analysis of core extrusion and squeezing behaviour in tunnelling; Applications of strain based damage criterion in geotechnical engineering
Solving some problems of geomechanics on the base of defining relations of post-limit deformation of rocksThe structural geology contribution to rock mechanics modelling and rock engineering design; Rock mass instability caused by incipient block rotation; Attempt to advanced observational construction considering predictive analysis of long-term deformation; Vector sum method: A new method for anti-sliding stability analysis; Design of a railway tunnel parallel to an existing tunnel
Shear failure mechanism in oil wells due to reservoir compaction ""A case study in Gachsaran formation, Iran""Fractal analysis on the fracture development of sandstone using AE measurement; Static and dynamic response analyses of rock mass considering joint distribution and its applicability; Numerical study on zonal disintegration of rock mass around deep underground openings; The secondary lining design of subsea tunnel due to water inflow; An assessment of rock pillar considering excavation damaged rock zone
Response of granite under strain controlled loading and effect of support system on behaviour of large underground cavern

Sommario/riassunto

Harmonising Rock Mechanics and the Environment comprises the proceedings (invited and contributed papers) of the 12th ISRM International Congress on Rock Mechanics (Beijing, China, 18-21 October 2011). The contributions cover the entire scope of rock mechanics and rock engineering, with an emphasis on the critical role of both disciplines in sustainable development and environmental preservation. The main topics include (but are not limited to): Site investigation and field observation. Rock material and rock mass properties testing (laboratory and in situ).<BR