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# Foundations On Rock Wyllie Rock

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Rock Slope Engineering  
Rock Mechanics Through Project-Based Learning  
Bridge Engineering Handbook  
Rock Engineering  
Bridge Engineering Handbook, Five Volume Set  
A Geology for Engineers  
Pile Design and Construction Practice  
Handbook of Geotechnical Investigation and  
Design Tables  
Introduction to Rock Mechanics  
Rock Engineering for Foundations and Slopes  
Physical Properties of Rocks  
Engineering Rock Mechanics  
Geotechnical Instrumentation for Monitoring Field  
Performance  
Support of Underground Excavations in Hard Rock  
Shallow Foundations  
Rock Engineering  
Igneous Rocks and Processes  
Foundations on Rock  
Rock Fall Engineering  
Evaluation of Soil and Rock Properties  
Engineering in Rocks for Slopes, Foundations and  
Tunnels  
Foundations on Rock  
Engineering Rock Mass Classification  
Soft Rock Mechanics and Engineering

Foundations of Engineering Geology, Second Edition

Foundations on Rock

Engineering Geology for Underground Rocks

Rock-socketed Shafts for Highway Structure

Foundations

Engineering Rock Mass Classifications

Earth and Rock-Fill Dams

Bridge Engineering

Bridge Engineering Handbook, Second Edition

Risk Management for Geotechnical Engineering

Rock Slope Engineering

Underground Excavations in Rock

Rock Slope Engineering

Risk Management for Geotechnical Engineering

Theory and Practice of Pile Foundations

An Introduction to Rock Foundations Bearing

Capacity

Foundation Analysis and Design

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**CHASE  
HICKS**

Rock Slope  
Engineering  
John Wiley &  
Sons  
Introductory  
technical  
guidance for

civil and  
geotechnical  
engineers  
interested in  
bearing  
capacity of  
rock  
foundations  
for buildings  
and other  
infrastructure  
features. Here

is what is  
discussed: 1.  
FAILURE  
MODES 2.  
METHODS FOR  
COMPUTING  
BEARING  
CAPACITY 3.  
ALLOWABLE  
BEARING  
CAPACITY  
VALUE 4.

TREATMENT METHODS. Rock Mechanics Through Project-Based Learning CRC Press This international handbook is essential for geotechnical engineers and engineering geologists responsible for designing and constructing piled foundations. It explains general principles and practice and details current types of pile, piling equipment and methods. It includes calculations of the resistance of piles to compressive loads, pile group *Bridge Engineering Handbook* Springer Nature Over 140 experts, 14 countries, and 89 chapters are represented in the second edition of the *Bridge Engineering Handbook*. This extensive collection highlights bridge engineering specimens from around the world, contains detailed information on bridge engineering, and thoroughly explains the concepts and practical applications surrounding the subject. Published in five books: *Fundamentals, Superstructure Design, Substructure Design, Seismic Design, and Construction and Maintenance*, this new edition provides numerous worked-out examples that give readers step-by-step design procedures,

includes contributions by leading experts from around the world in their respective areas of bridge engineering, contains 26 completely new chapters, and updates most other chapters. It offers design concepts, specifications, and practice, as well as the various types of bridges. The text includes over 2,500 tables, charts, illustrations and photos. The book covers new, innovative and

traditional methods and practices; explores rehabilitation, retrofit, and maintenance; and examines seismic design and building materials. The third book, Substructure Design, contains 11 chapters addressing the various substructure components. What's New in the Second Edition: • Includes new chapter: Landslide Risk Assessment and Mitigation • Rewrites the Shallow Foundation chapter •

Rewrites the Geotechnical Consideration chapter and retitles it as: Ground Investigation • Updates the Abutments and Retaining Structures chapter and divides it into two chapters: Abutments and Earth Retaining Structures This text is an ideal reference for practicing bridge engineers and consultants (design, construction, maintenance), and can also be used as a reference for students in

bridge engineering courses.

**Rock Engineering**  
John Wiley & Sons  
Risk Management for Geotechnical Engineering: Hazard, Risks and Consequences covers the application of risk management for soil and rock engineering projects, and the preparation of reliable designs that account for uncertainty. The book discusses qualitative risk

assessments based on experience and judgement, as well as quantitative risk analysis using probabilistic methods and decision analysis to optimize designs. Many examples are included of how risk management can be applied to geotechnical engineering, with case studies presented for debris flows, rock falls, tunnel stability, and dam foundations.

Also discussed are issues of liability insurance and contract law related to geotechnical engineering. This comprehensive book is ideal for practicing geotechnical engineers, addressing the challenges of making decisions in circumstances where uncertainties exist in site conditions, material properties and analysis methods.

Bridge Engineering Handbook, Five Volume Set CRC Press

The second edition of this well established book provides a readable and highly illustrated overview of the main facets of geology for engineers. Comprehensively updated, and with four new sections, Foundations of Engineering Geology covers the entire spectrum of topics of interest to both student and practitioner.

**A Geology for Engineers**  
CRC Press

Risk Management for Geotechnical Engineering: Hazard, Risks and Consequences covers the application of risk management for soil and rock engineering projects, and the preparation of reliable designs that account for uncertainty. The book discusses qualitative risk assessments based on experience and judgement, as well as quantitative

risk analysis using probabilistic methods and decision analysis to optimize designs. Many examples are included of how risk management can be applied to geotechnical engineering, with case studies presented for debris flows, rock falls, tunnel stability, and dam foundations. Also discussed are issues of liability insurance and contract law related to geotechnical

engineering. This comprehensive book is ideal for practicing geotechnical engineers, addressing the challenges of making decisions in circumstances where uncertainties exist in site conditions, material properties and analysis methods.

**Pile Design and Construction Practice**

Elsevier  
Underground Excavations in Rock deals with the geotechnical aspects of the design of

underground openings for mining and civil engineering processes. Handbook of Geotechnical Investigation and Design Tables CRC Press  
Professionals and students in any geology-related field will find this an essential reference. It clearly and systematically explains underground engineering geology principles, methods, theories and case studies. The authors lay out

engineering problems in underground rock engineering and how to study and solve them. The book specially emphasizes mechanical and hydraulic couplings in rock engineering for wellbore stability, mining near aquifers and other underground structures where inflow is a problem. *Introduction to Rock Mechanics* CRC Press  
Engineering rock mechanics is

the discipline used to design structures built in rock. These structures encompass building foundations, dams, slopes, shafts, tunnels, caverns, hydroelectric schemes, mines, radioactive waste repositories and geothermal energy projects: in short, any structure built on or in a rock mass. Despite the variety of projects that use rock engineering, the principles

remain the same. Engineering Rock Mechanics clearly and systematically explains the key principles behind rock engineering. The book covers the basic rock mechanics principles; how to study the interactions between these principles and a discussion on the fundamentals of excavation and support and the application of these in the design of surface and underground

structures. Engineering Rock Mechanics is recommended as an across-the-board source of information for the benefit of anyone involved in rock mechanics and rock engineering. **Rock Engineering for Foundations and Slopes** Springer Science & Business Media Rock mass classification methods are commonly used at the preliminary design stages



of a construction project when there is very little information. It forms the bases for design and estimation of the required amount and type of rock support and groundwater control measures. Encompassing nearly all aspects of rock mass classifications in detail, Civil Engineering Rock Mass Classification: Tunnelling, Foundations and Landsides provides construction engineers and

managers with extensive practical knowledge which is time-tested in the projects in Himalaya and other parts of the world in complex geological conditions. Rock mass classification is an essential element of feasibility studies for any near surface construction project prior to any excavation or disturbances made to earth. Written by an author team with over 50 years of experience in some of the

most difficult mining regions of the world, Civil Engineering Rock Mass Classification: Tunnelling, Foundations and Landsides provides construction engineers, construction managers and mining engineers with the tools and methods to gather geotechnical data, either from rock cuts, drifts or core, and process the information for subsequent analysis. The goal is to use effective

<p>mapping techniques to obtain data can be used as input for any of the established rock classification systems. The book covers all of the commonly used classification methods including: Barton's Q and Q' systems, Bieniawski's RMR, Laubscher's MRMR and Hoek's and GSI systems. With this book in hand, engineers will be able to gather geotechnical</p>	<p>data, either from rock cuts, drifts or core, and process the information for subsequent analysis. Rich with international case studies and worked out equations, the focus of the book is on the practical gathering information for purposes of analysis and design. Identify the most significant parameters influencing the behaviour of a rock mass. Divide a particular rock mass</p>	<p>formulation into groups of similar behaviour, rock mass classes of varying quality. Provide a basis of understanding the characteristics of each rock mass class. Relate the experience of rock conditions at one site to the conditions and experience encountered at others. Derive quantitative data and guidelines for engineering design. Provide common basis for</p>
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communication between engineers and geologists. *Physical Properties of Rocks* CRC Press Traditional textbooks on rock mechanics often fail to engage students in the learning process as such books are packed with theory that students are unlikely to use in their future employment. In contrast, this book delivers the fundamentals of rock mechanics using a more practical and engaging project-based approach which simulates what practitioners do in their real-life practice. This book will be of great help to those who would like to learn practical aspects of rock mechanics and better understand how to apply theory to solve real engineering problems. This book covers geology, rock mechanics principles, and practical applications such as rock falls, slope stability analysis and engineering problems in tunnels. Throughout the whole book, the reader is engaged in project-based work so that the reader can experience what rock mechanics is like and clearly see why it is an important part of geotechnical engineering. The project utilizes real field and laboratory data while the relevant theory needed

to execute the project is linked to each project task. In addition, each section of the book contains several exercises and quiz questions to scaffold learning. Some problems include open-ended questions to encourage the reader to exercise their judgement and develop practical skills. To foster the learning process, solutions to all questions are provided to allow for learning

feedback.

## **Engineering Rock**

### **Mechanics**

CRC Press

A symbiosis of a brief description of physical fundamentals of the rock properties (based on typical experimental results and relevant theories and models) with a guide for practical use of different theoretical concepts.

Geotechnical Instrumentation for

Monitoring

Field

Performance

Transportation Research

Board

The main aim of this book is to bring together in one volume current knowledge of, and expertise and experience in the design and construction of rock foundations. It sets out to assist those involved in geotechnical engineering in the identification of potentially unstable rock foundations, demonstrate design methods appropriate for a range of geological

conditions and foundation types and describe construction methods.

*Support of Underground Excavations in Hard Rock*  
CRC Press  
This second edition of the successful *Foundations on Rock* presents an up-to-date practical reference book describing current engineering practice in the investigation, design and construction of foundations on rock. An extra chapter on Tension

*Foundations* has been included. The methods set out are readily applicable to high rise buildings, bridges, dams and structures subject to uplift and turning loads. *Foundations on Rock* differs from the many texts and handbooks on soil foundations in that it focuses on the effect of geology on the stability and settlement of rock foundations. While the intact rock may be

strong, defects in the rock such as faults, joints and cavities, and the deterioration of the rock with time, will have a significant effect on foundation performance. Methods of detecting such defects are described, and their implications for foundation design and treatment are elaborated.

*Shallow Foundations*  
CRC Press  
This is the first authoritative reference on rock mass classification,

consolidating into one handy source information once widely scattered throughout the literature. It includes new, previously unpublished material and case histories, presents the fundamental concepts of classification schemes, and critically appraises their practical application in industrial projects such as tunneling and mining.

*Rock*

*Engineering*

CRC Press

This document presents

state-of-the-practice information on the evaluation of soil and rock properties for geotechnical design applications.

This document addresses the entire range of materials potentially encountered in highway engineering practice, from soft clay to intact rock and variations of materials that fall between these two extremes. Information is presented on parameters measured, evaluation of data quality,

and interpretation of properties for conventional soil and rock laboratory testing, as well as in situ devices such as field vane testing, cone penetration testing, dilatometer, pressuremeter, and borehole jack. This document provides the design engineer with information that can be used to develop a rationale for accepting or rejecting data and for resolving inconsistencies

s between data provided by different laboratories and field tests. This document also includes information on: (1) the use of Geographical Information Systems (GIS) and Personal Data Assistance devices for the collection and interpretation of subsurface information; (2) quantitative measures for evaluating disturbance of laboratory soil samples; and (3) the use of measurement s from

geophysical testing techniques to obtain information on the modulus of soil. Also included are chapters on evaluating properties of special soil materials (e.g., loess, cemented sands, peats and organic soils, etc.) and the use of statistical information in evaluating anomalous data and obtaining design values for soil and rock properties. An appendix of three detailed soil and rock

property selection examples is provided which illustrate the application of the methods described in the document. [Igneous Rocks and Processes](#) John Wiley & Sons  
The first book on the subject written by a practitioner for practitioners.  
Geotechnical Instrumentation for Monitoring Field Performance  
Geotechnical Instrumentation for Monitoring Field Performance goes far

<p>beyond a mere summary of the technical literature and manufacturers' brochures: it guides reader through the entire geotechnical instrumentation process, showing them when to monitor safety and performance, and how to do it well. This comprehensive guide: *</p> <p>Describes the critical steps of planning monitoring programs using geotechnical instrumentation, including what benefits</p>	<p>can be achieved and how construction specifications should be written *</p> <p>Describes and evaluates monitoring methods and recommends instruments for monitoring groundwater pressure, deformations, total stress in soil, stress change in rock, temperature, and load and strain in structural members *</p> <p>Offers detailed practical guidelines on instrument calibrations, installation and</p>	<p>maintenance, and on the collection, processing, and interpretation of instrumentation data *</p> <p>Describes the role of geotechnical instrumentation during the construction and operation phases of civil engineering projects, including braced excavations, embankments on soft ground, embankment dams, excavated and natural slopes, underground excavations, driving piles, and drilled</p>
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shafts \*  
Provides guidelines throughout the book on the best practices

**Foundations on Rock** CRC Press  
Pile Foundations are an essential basis for many structures. It is vital that they be designed with the utmost reliability, because the cost of failure is potentially huge. Covering a whole range of design issues relating to pile design, this book presents

economical and efficient design solutions and demonstrates them using real world examples. Co

**Rock Fall Engineering** Spon Press  
This book offers a practical reference guide to soft rock mechanics for engineers and scientists. Written by recognized experts, it will benefit professionals, contractors, academics, researchers and students working on rock engineering

projects in the fields of civil engineering, mining and construction engineering. Soft Rock Mechanics and Engineering covers a specific subject of great relevance in Rock Mechanics - and one that is directly connected to the design of geotechnical structures under difficult ground conditions. The book addresses practical issues related to the geomechanica

l properties of these types of rock masses and their characterization, while also discussing advances regarding in situ investigation, safety, and monitoring of geotechnical structures in soft rocks. Lastly, it presents important case histories involving tunnelling, dam foundations, coal and open pit mines and landslides. *Evaluation of Soil and Rock Properties* McGraw-Hill Companies

The safe and economical construction of tunnels, mines, and other subterranean works depends on the correct choice of support systems to ensure that the excavations are stable. These support systems should be matched to the characteristics of the rock mass and the excavation techniques adopted. Establishing the support requirements,

designing support systems and installing these correctly are essential elements in safe underground construction. This is a comprehensive and practical work which also gives access to user-friendly computer programmes which enable the investigation and design of support techniques. Details on how to obtain this software are also included in the book.

Best Sellers - Books :

- [Little Blue Truck's Valentine](#)
- [The Alchemist, 25th Anniversary: A Fable About Following Your Dream](#)
- [A Court Of Frost And Starlight \(a Court Of Thorns And Roses, 4\)](#)
- [The Five-star Weekend](#)
- [Think And Grow Rich: The Landmark Bestseller Now Revised And Updated For The 21st Century \(think And Grow Rich Series\)](#)
- [Beyond The Story: 10-year Record Of Bts By Bts](#)
- [Tucker By Chadwick Moore](#)
- [Dog Man: Twenty Thousand Fleas Under The Sea: A Graphic Novel \(dog Man #11\): From The Creator Of Captain Underpants By Dav Pilkey](#)
- [What To Expect When You're Expecting By Heidi Murkoff](#)
- [Regretting You By Colleen Hoover](#)