

The History Of Mining The Events Technology And People Involved In The Industry That Forged The Modern World

The History of Mining Mining and the Law in Africa [The Business of Mining](#) *Environmental Impacts of Mining Monitoring, Restoration, and Control* **Mining and Sustainable Development **The Business of Mining** **Evolutionary and Revolutionary Technologies for Mining** **Mining, Society, and a Sustainable World** **Environmental Impacts of Mining** **Mining Software Specifications** **Mining and the Environment** **Mining Heritage and Tourism** **The Impact of Mining Lifecycles in Mongolia and Kyrgyzstan** *The Law and Governance of Mining and Minerals* *The Business of Mining* [Global Challenges for Innovation in Mining Industries](#) **Designing Ergonomic, Safe, and Attractive Mining Workplaces** **Assessment, Restoration and Reclamation of Mining Influenced Soils** *Mining in the Arctic* **Mining in the Asia-Pacific** **Local Experiences of Mining in Peru** *Africa's Mineral Fortune* **Environmental Impact of Mining and Mineral Processing** *Mining Capital* *Modern Management in the Global Mining Industry* **Statistics for Mining Engineering** **Environmental Impacts of Mining Activities** [Making Sense of Mining History](#) *Mountain Movers* **Mining and its Impact on the Environment** *Life Cycle Assessment for Sustainable Mining* **The World of Mining** **Mining North America** **Engineered Rock Structures in Mining and Civil Construction** **Introductory Mining Engineering** **Illegal Mining** **An Insider's Guide to the Mining Sector** **How Mining Works** **Sustainable Management of Mining Operations** **Mining in the Himalayas****

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The Business of Mining May 30 2022 **The Business of Mining** complete set of three Focus books will provide readers with a holistic all-embracing appraisal of the analytical tools available for assessing the economic viability of prospective mines. Each volume has a discrete focus. This second volume discusses, in some depth, alternative means of assessing the economic viability of mining projects based on the best estimate of the recoverable mineral and/or fossil fuel reserves. The books were written primarily for undergraduate applied geologists, mining engineers and extractive metallurgists and those pursuing course-based postgraduate programs in mineral economics. However, the complete series will also be an extremely useful reference text for practicing mining professionals as well as for consultant geologists, mining engineers or primary metallurgists.

Environmental Impacts of Mining Feb 24 2022 This second edition examines the problems facing the mining industry, and offers practical case studies, as well as new solutions for environmental restoration and remediation. New topics include bioremediation technology, mountaintop surface coal mining, reclamation procedures, environmental impacts of gold mining, mining in different countries worldwide, and the resulting environmental problems. The book is considered a "must have" book for environmental engineers and professionals in the mining industry, geologists, hydrologists, hazardous waste professionals, and academics.

The World of Mining Mar 04 2020 In this truly unique celebration of mining, breathtaking aerial photographs by award-winning photographers Jim Wark and Richard Woldendorp accompany ground-level pictures of mines, mine-side oddities, and mine communities. Informed but breezy narratives by mining experts John Trudinger and Karlheinz

Spitz identify and explain the images. The World of Mining shows that mining and associated activities can be impressive, attractive, and even spectacular. The book illustrates most if not all aspects of mining and mineral processing, in all its varieties, and from different environments throughout the world. It illustrates the colourful history of mining and its importance to the development of civilisation as we know it. It depicts the wide range of activities in modern mining, from exploration to mine closure, as well as traditional mining by skilled practitioners, using methods adapted to local conditions. A visual feast for anyone interested, with and without a background in the earth sciences or photography. Recommended as well as a primary and secondary school information source on the subject. "...a highly credible and lavishly produced volume..." -- Australian Journal of Mining, November 2011 Check out the author's portal for unbiased and accurate information about mining, its effects on the environment, and the attendant social costs and benefits.

Mining and Sustainable Development Jun 30 2022 Mining is a transformative activity which has numerous economic, social and environmental impacts. These impacts can be both positive and adverse, enhancing as well as disrupting economies, ecosystems and communities. The extractive industries have been criticised heavily for their adverse impacts and involvement in significant social and environmental scandals. More recently, these industries have sought to respond to negative perceptions and have embraced the core principles of sustainability. This sector could be regarded as a leader in sustainability initiatives, evident from the various developments and frameworks in mining and sustainability that have emerged over time. This book reviews current topical issues in mining and sustainable development. It addresses the changing role of minerals in society, the social acceptance of mining, due diligence in the mining industry, critical and contemporary debates such as mining and indigenous peoples and transit worker accommodation, corporate sustainability matters such as sustainability reporting and taxation, and sustainability solutions through an emphasis on renewable energy and shared-used infrastructure. Written by experts from Australia, Europe and North America, but including examples from both developed and developing countries, the chapters provide a contemporary understanding of sustainability opportunities and challenges in the mining industry. The book will be of interest to practitioners, government and civil society as well as scholars and students with interests in mining and sustainable development.

Environmental Impacts of Mining Monitoring, Restoration, and Control Aug 01 2022 Environmental Impacts of Mining is a comprehensive reference addressing some of the most significant environmental problems associated with mining. These issues include destruction of landscapes, destruction of agricultural and forest lands, sedimentation and erosion, soil contamination, surface and groundwater pollution, air pollution, and waste management. The book presents an agenda for minimizing environmental damage and offers solutions for the restoration and remediation of degraded areas. This book is a "must have" for environmental consultants, regulators, planners, workers in the mining industry, geologists, hydrologists, hazardous waste professionals, and instructors in the environmental sciences.

The Business of Mining Aug 21 2021 The Business of Mining complete set of three Focus books provides readers with a holistic all-embracing appraisal of the analytical tools available for assessing the economic viability of prospective mines. Each volume has a discrete focus. This third volume commences with "Our Earth, its Minerals and Ore Bodies", followed by a review of mineral exploration and sampling of mineral deposits. It continues with detailed sections covering the reporting of mineral resources and reserves in Australia, and concludes with the basic principles and application of the various methods of estimating the in-situ mineral resources and ore reserves. The books were written primarily for undergraduate applied geologists, mining engineers and extractive metallurgists and those pursuing course-based postgraduate programs in mineral economics. However, the complete series will also be an extremely useful reference text for practicing mining professionals as well as for consultant geologists, mining engineers or primary metallurgists.

Mining and the Environment Dec 25 2021 The history of mining is replete with controversy of which much is related to environmental damage and consequent community outrage. Over recent decades, this has led to increased pressure to improve the environmental and social performance of mining operations, particularly in developing countries. The industry has responded by embracing the ideals of sustainability and corporate social responsibility. Mining and the Environment identifies and discusses the wide range of social and environmental issues pertaining to mining, with particular reference to mining in developing countries, from where many of the project examples and case studies have been selected. Following an introductory overview of pressing issues, the book illustrates how environmental and social impact assessment, such as defined in "The Equator Principles", integrates with the mining lifecycle and how environmental and social management aims to eliminate the negative and accentuate the positive mining impacts. Practical approaches are provided for managing issues ranging from land acquisition and resettlement of Indigenous peoples, to the technical aspects of acid rock drainage and mine waste management. Moreover, thorough analyses of ways and means of sharing non-transitory mining benefits with

host communities are presented to allow mining to provide sustainable benefits for the affected communities. This second edition of *Mining and the Environment* includes new chapters on Health Impact Assessment, Biodiversity and Gender Issues, all of which have become more important since the first edition appeared a decade ago. The wide coverage of issues and the many real-life case studies make this practice-oriented book a reference and key reading. It is intended for environmental consultants, engineers, regulators and operators in the field and for students to use as a course textbook. As much of the matter applies to the extractive industries as a whole, it will also serve environmental professionals in the oil and gas industries. Karlheinz Spitz and John Trudinger both have multiple years of experience in the assessment of mining projects around the world. The combination of their expertise and knowledge about social, economic, and environmental performance of mining and mine waste management has resulted in this in-depth coverage of the requirements for responsible and sustainable mining.

Mining and the Law in Africa Oct 03 2022 The mining sector has been an integral part of economic development in many African countries. Although minerals have been exploited for decades in these countries, the benefits have not always been as visible. This has necessitated reforms including nationalisation of mining activities in the distant past; and currently legal and regulatory reforms. This book gives an insight of these reforms and with reference to the fieldwork research undertaken by the author in some African countries, the book highlights the social and environmental impacts of mining activities in Africa. The central question of the book is, why the mining laws have worked in some countries but not others and what can be done to ensure that these laws are effective? Consequently, the book analyses the legal reforms made in the sector and highlights both the challenges and the opportunities for foreign investors as well as the African governments and local communities. The book will be of great interest to researchers and students in Energy and Geography related fields, as well as to practitioners and policy makers.

Mining in the Asia-Pacific Mar 16 2021 This book provides the most comprehensive survey of mining activity and the principal challenges confronting the resources industry in the Asia-Pacific region today, and presents new theoretical and practical insights into the political and business risks faced by mining companies operating in the region from both academic and corporate perspectives. It focuses on the exploration, production and trade of the principal commodities coal, iron ore, uranium, oil and gas, and gold, as well as the emerging commodities unconventional gas and rare earth minerals, provides the reader with a valuable understanding of resource activity in the region. In addition, it also integrates and draws attention to eight key issue areas which have the potential to pose significant risks, challenges and opportunities for the industry going forward, which include sustainable development, resource governance and economic contributions, declining ore grades and territorial expansion, community aspects of mining, mining and indigenous peoples, climate change, and impact assessment. The contributors to this volume are experts in their respective fields, and the diversity of voices makes this book a must read for scholars, industry participants, investors and policy-makers with an interest in mining in the Asia-Pacific.

Mining Heritage and Tourism Nov 23 2021 Many former mining areas have now lost their industrial function and are now turning to tourism for regional revitalization and community economic development. The transformation process of these industrial, and in some cases derelict, mining sites and landscapes into an area of interest for tourists is a major challenge both for planners and for tourism managers. It involves complex consideration to both the preservation of the physical site and community mining heritages as well as the health, safety and environmental factors inherent in opening these vast sites to the public. *Mining Heritage and Tourism* includes contributions from internationally recognized authorities and is the first book to focus on the issues, challenges and potentials in redeveloping mines as cultural heritage attractions which are explored thematically throughout the book. It draws on multidisciplinary research to consider the dichotomy between heritage preservation and tourist development goals for mining heritage sites as well as to explore the practical challenges of developing these sites. These themes are illustrated by case studies from a vast range of geographical locations around the globe to offer operational insights into the planning and management of these sites for both heritage and tourism purposes, as well as innovative site management techniques. There has never before been a more comprehensive book on mining heritage tourism representing the latest developments in strategy, policy and practices. This book serves as an invaluable guide for students, researchers, academics and practitioners in the areas of Tourism and Heritage Management.

An Insider's Guide to the Mining Sector Sep 29 2019 Coulson offers essential information on the mining industry and markets in order to help readers add value to their mining portfolios.

Environmental Impacts of Mining Activities Aug 09 2020 Since the mining industry is still expanding, comprehensive information on the effects of mining activities on the environment is needed. This book provides information on biological and physico-chemical treatments of mining effluents, on factors affecting human health and on environmental effects that have to be taken into account by the mining industry when aiming for sustainable development of their industry. Further regulatory guidelines and legislation relevant to the decommissioning of mining

sites are reviewed. Mining industry, consulting companies, and governmental agencies alike will find a wealth of valuable information in this book.

Illegal Mining Oct 30 2019 This book provides a comprehensive analysis of the illegal extraction of metals and minerals from the perspectives of organized crime theory, green criminology, anti-corruption studies, and victimology. It includes contributions that focus on organized crime-related offences, such as drug trafficking and trafficking in persons, extortion, corruption and money laundering and sheds light on the serious environmental harms caused by illegal mining. Based on a wide range of case studies from the Amazon rainforest through the Ukrainian flatlands to the desert-like savanna of Central African Republic and Australia's elevated plateaus, this book offers a unique insight into the illegal mining business and the complex relationship between organized crime, corruption, and ecocide. This is the first book-length publication on illegal extraction, trafficking in mined commodities, and ecocide associated with mining. It will appeal to scholars working on organized crime and green crime, including criminologists, sociologists, anthropologists, and legal scholars. Practitioners and the general public may welcome this comprehensive and timely publication to contemplate on resource-scarcity, security, and crime in a rapidly changing world.

Designing Ergonomic, Safe, and Attractive Mining Workplaces Jun 18 2021 The mining industry has experienced important improvements with regard to its safety record and work environment. But there is still room for further improvement and the mining industry now faces the challenge of securing a future workforce: The current workforce is aging, and mining work increasingly requires a more qualified workforce. *Designing Ergonomic, Safe, and Attractive Mining Workplaces* seeks to give an understanding of what must be considered in the design of mining workplaces. By reviewing and discussing the historic and current development of the mining industry as well as problems related to the safety, ergonomics, and attractiveness of mining workplaces, it demonstrates that the challenges facing the mining industry often need to be solved on a case-to-case basis. The processes through which these issues are managed are of significant importance. To facilitate a proactive approach, the book covers the principles of systematic work environment management, together with examples of methods for risk management and work environment monitoring. It introduces a systematic and iterative design and planning method for the mining industry. This method acknowledges that all relevant stakeholders must be able to influence the design of ergonomic, safe, and attractive mining workplaces. Features Takes a holistic and sociotechnical approach to current and future problems of the mining industry, which normally are dealt with in isolation or through technology Reviews historic, current, and future issues in the mining industry with regards to workplace attractiveness, health, safety, mechanization, automation, and work organization Provides several examples of these issues and attempts to address them (successfully and unsuccessfully) Covers the principles of systematic work environment management together with examples of methods for risk management and work environment monitoring for pro-actively dealing with work environment issues Introduces a systematic and iterative design and planning method for the mining industry that aims to avoid problems of traditional planning approaches and increase stakeholder and employee participation

Mountain Movers Jun 06 2020 The products of mining are everywhere – if it wasn't grown, it was mined or drilled. But the mining industry has a chequered past. Pollution, human rights abuses, and corruption have tarnished the reputation of the industry across the globe. Over a decade ago the major mining companies embraced the concept of sustainable and equitable development and embarked on an explicit process of reform – but has the industry actually changed? This book explores the dynamics of change-making for sustainable development in the resources sector, specifically the mining of mineral and energy resources. The author recounts the stories and insights of over forty change-makers both inside and outside the industry, from anti-mining activists to the professionals charged with the task of reform, introducing the people who are moving an industry that moves mountains. The book takes stock of what has worked and what has not, analyzing the relative influence and dynamics of the key corporate, civil society and government actors with a view to developing new approaches for improving environmental and social outcomes from mineral and energy development. Illustrated with case studies from Angola, Australia, Brazil, Canada, Chile, Colombia, El Salvador, Guinea, Peru, The Philippines, Romania, Sierra Leone, South Africa, and The United States of America, and brimming with the backstories to the major sustainability initiatives, *Mountain Movers* reveals where progress has been made and where reform is still needed towards a more sustainable and equitable mining industry.

Mining Capital Nov 11 2020 Mining is a capital-intensive industry, and involves long lead times to develop projects that demand a structured approach, from mine exploration to exit. This book provides mine developers, investors, owners, shareholders, and mineral policymakers a comprehensive game plan to raise capital for the development of new mining projects or to bolster operational mines. The author, an experienced mining capital consultant, shows how mine developers and mine owners can secure capital in any phase of the commodity price cycle, at any site, and at any project stage. The book follows a proven and structured approach that enables mine developers and owners

to successfully raise capital for their projects. With the aid of case studies and practical methods, the reader will learn the essentials on topics ranging from developing and marketing a business case for investment, to the types and sources of mining capital for different project stages, as well as the structure and significance of due diligence. The author presents actual mining projects and their funding plans, transaction structures and term sheets for capital. The mining projects discussed represent various project stages, commodities, and parts of the globe, offering a comprehensive reference guide for mine developers, investors and promoters alike.

Environmental Impact of Mining and Mineral Processing Dec 13 2020 *Environmental Impact of Mining and Mineral Processing: Management, Monitoring, and Auditing Strategies* covers all the aspects related to mining and the environment, including environmental assessment at the early planning stages, environmental management during mine operation, and the identification of major impacts. Technologies for the treatment of mining, mineral processing, and metallurgical wastes are also covered, along with environmental management of mining wastes, including disposal options and the treatment of mining effluents. Presents a systematic approach for environmental assessment of mining and mineral processing projects Provides expert advice for the implementation of environmental management systems that are unique to the mining industry Effectively addresses a number of environmental challenges, including air quality, water quality, acid mine drainage, and land and economic impacts Explains the latest in environmental monitoring and control systems to limit the environmental impact of mining and processing operations

Assessment, Restoration and Reclamation of Mining Influenced Soils May 18 2021 *Assessment, Restoration and Reclamation of Mining Influenced Soils* covers processes operating in the environment as a result of mining activity, including the whole spectra of negative effects of anthropopressure and the environment, from changes in soil chemistry, changes in soil physical properties, geomechanical disturbances, and mine water discharges. Mining activity and its waste are an environmental concern. Knowledge of the fate of potentially harmful elements and their effect on plants and the food chain, and ultimately on human health, is still being understood. Therefore, there is a need for better knowledge on the origin, distribution, and management of mine waste on a global level. This book provides information on hazard assessment and remediation of the disturbed environment, including stabilization of contaminated soils and phytoremediation, and will help scientists and public authorities formulate answers to the daily challenges related to the restoration of contaminated land. Provides a thorough overview of the processes operating on mining-devastated areas, as well as origin, distribution, and deactivation of harmful elements Includes outcomes and recommendations of the Global Mining Initiative that are widely regarded as the code of conduct in the minerals industry Contains global case studies that elucidate various aspects of assessment and restoration of mine-contaminated land

Evolutionary and Revolutionary Technologies for Mining Apr 28 2022 The Office of Industrial Technologies (OIT) of the U. S. Department of Energy commissioned the National Research Council (NRC) to undertake a study on required technologies for the Mining Industries of the Future Program to complement information provided to the program by the National Mining Association. Subsequently, the National Institute for Occupational Safety and Health also became a sponsor of this study, and the Statement of Task was expanded to include health and safety. The overall objectives of this study are: (a) to review available information on the U.S. mining industry; (b) to identify critical research and development needs related to the exploration, mining, and processing of coal, minerals, and metals; and (c) to examine the federal contribution to research and development in mining processes.

Life Cycle Assessment for Sustainable Mining Apr 04 2020 *Life Cycle Assessment for Sustainable Mining* addresses sustainable mining issues based on life cycle assessment, providing a thorough guide to implementing LCAs using sustainability metrics. The book details current research on LCA methodologies related to mining, their outcomes, and how to relate sustainable mining concepts in a circular economy. It is an in-depth, foundational reference for developing ideas for technological advancement through designing reduced-emission mining equipment or processes. It includes literature reviews and theoretical concepts of life cycle assessments applied in mining industries, sustainability metrics and problems related to mining and mineral processing industries identified by the life cycle assessment results. This book will aid researchers, students and academics in the field of environmental science, mining engineering and sustainability to see LCA technology outcomes which would be useful for the future development of environmentally-friendly mining processes. Details state-of-the-art life cycle assessment theory and practices applied in the mining and mineral processing industries Includes in-depth, practical case studies outlined with life cycle assessment results to show future pathways for sustainability enhancement Provides fundamental knowledge on how to measure sustainability metrics using life cycle assessment in mining industries

Mining, Society, and a Sustainable World Mar 28 2022 This is the first book of peer-reviewed, edited papers that examines the minerals industry in relation to sustainable development. The book takes a proactive, positivist,

and solution-oriented approach, while not shying away from the fundamental problems.

Mining North America Feb 01 2020 "Over the past five hundred years, North Americans have increasingly turned to mining to produce many of their basic social and cultural objects. From cell phones to cars and roadways, metal pots to wall tile and even talcum powder, minerals products have become central to modern North American life. As this process has unfolded, mining has also indelibly shaped the natural world and North Americans' relationship with it. Mountains have been honeycombed, rivers poisoned, and forests leveled. The effects of these environmental transformations have fallen unevenly across North American societies. *Mining North America* examines these developments. Drawing on the work of scholars from Mexico, the United States, and Canada, this book explores how mining has shaped North America over the last half millennium. It covers an array of minerals and geographies while seeking to draw mining into the core debates that animate North American environmental history generally. Taken together, the authors' contributions make a powerful case for the centrality of mining in forging North American environments and societies"--Provided by publisher.

Africa's Mineral Fortune Jan 14 2021 For too long Africa's mineral fortune has been lamented as a resource curse that has led to conflict rather than development for much of the continent. Yet times are changing and the opportunities to bring technical expertise on modern mining alongside appropriate governance mechanisms for social development are becoming more accessible in Africa. This book synthesizes perspectives from multiple disciplines to address Africa's development goals in relation to its mineral resources. The authors cover ways of addressing a range of policy challenges, environmental concerns, and public health impacts and also consider the role of globalization within the extractive industries. Academic research is coupled with key field vignettes from practitioners exemplifying case studies throughout. The book summarizes the challenges of natural resource governance, suggesting ways in which mining can be more effectively managed in Africa. By providing an analytical framework it highlights the essential intersection between natural and social sciences, central to efficient and effective harnessing of the potential for minerals and mining to be a contributor to positive development in Africa. It will be of interest to policy makers, industry professionals, and researchers in the extractive industries, as well as to the broader development community.

Engineered Rock Structures in Mining and Civil Construction Jan 02 2020 The book collates and sifts a vast amount of literature on the design of structures in the mining and construction industries to synthesize a comprehensive text on the subject area. The focus is on the application of theory to practice and the book is richly illustrated with worked out examples. The presentation is lucid and based on the extensive professional, teaching and research experience of the authors. The text seeks to address the key issues of design of 'engineered' structures in or on rock. The book will serve as a standard text for undergraduate courses in mining, civil engineering and engineering geology.

The Law and Governance of Mining and Minerals Sep 21 2021 This book explores a disciplinary matrix for the study of the law and governance concerning mining and minerals from a global perspective. The book considers the key challenges of achieving the goals of Agenda 2030 and the transition to low-carbon circular economies. The perspective encompasses the multi-faceted and highly complex interaction of multiple fields of international law and policy, soft law and standards, domestic laws and regulations as well as local levels of ordering of social relations. What emerges is a largely neglected, unsystematised and under-theorised field of study which lies at the intersection of the global economy, environmental sustainability, human rights and social equity. But it also underlies the many loopholes to address at all levels, most notably at the local level – land and land holders, artisanal miners, ecosystems, local economies, local linkages and development. The book calls for a truly cosmopolitan academic discipline to be built and identifies challenges to do so. It also sets a research agenda for further studies in this fast-changing field.

Local Experiences of Mining in Peru Feb 12 2021 This book uses a multimethod approach to examine local experience of contemporary mining development in the Peruvian Andes, creating an understanding of the transformations that rural societies experience in this context. Mining is a major component of economic growth in many resource endowed countries, whilst also causing mixed social, cultural, and environmental effects. Most current literature on contemporary mining in Peru is largely focussed on conflict; however, in this text, the author takes a differing approach by examining the experiences of families in the vicinity of Rio Tinto's La Granja exploration copper project, Northern Peru, an area with great significance due to the mining investment and development, which has taken place over the past 25 years. The book first provides a critical discussion about production of space theories, and debates on spatial mobility, highlighting their relevance to understanding large-scale mining developments, especially in the Peruvian Andes. The following chapters analyze spatial transformations mining development has prompted, focusing on four axes: access to space, production, mobility, and representations of space. A comprehensive narrative is constructed drawing on diverse voices and perspectives, including those of

family heads and their partners, local leaders, company employees, and social scientists. The book concludes by discussing how the findings challenge some of the current accounts of the social effects of mining development on rural communities and pose significant implications for sustainable development programs and place-based practices. By taking an interdisciplinary approach, this book will appeal to a wide audience including geographers, social anthropologists, and social scientists interested in the social effects of mining as well as researchers interested in current Latin American Studies and Rural Development.

Sustainable Management of Mining Operations Jul 28 2019 Today's mining professionals face unparalleled challenges brought about by globalization and increased environmental awareness. The pressure is on to enhance corporate reputations, achieve higher operational efficiency, improve planning and control, gain access to mineral resources, build trust with stakeholders, attract financing, recruit and retain a quality workforce, and lower costs. Sustainable Management of Mining Operations provides a holistic, practical approach to achieving these goals. The key, say the authors, is to create a culture within the organization that recognizes the value of sustainability by effectively integrating economic, environmental, and social considerations. They explore the three management functions that are instrumental in shaping this culture: corporate strategy, human resources, and operations. Each section of this book focuses on sustainable management from a different perspective, management level, or stage of the mine life cycle. You'll benefit from real-life, practical insights from 27 internationally respected authors whose job titles have encompassed everything from CEO to master mechanic. Focusing on real-life experience and not abstract theory, you'll learn first hand from case histories written by those who "got their hands dirty." You'll see how leading-edge companies are leveraging culture, strong leadership, and organizational structure to capitalize on sustainability. Sustainable Management of Mining Operations is required reading for mining professionals with operations, human resources, external affairs, or environmental health and safety responsibilities. The book is also a powerful, forward-looking resource for faculty and students in mining studies programs.

The History of Mining Nov 04 2022 THE INDUSTRY THAT FORGED THE MODERN WORLD Throughout history metals and raw materials have underpinned human activity. So it is that the industry responsible for extracting these materials from the ground - mining - has been ever present throughout the history of civilisation, from the ancient world of the Egyptians and Romans, to the industrial revolution and the British Empire, and through to the present day, with mining firms well represented on the world's most important stock indexes including the FTSE100. This book traces the history of mining from those early moments when man first started using tools to the present day where metals continue to underpin economic activity in the post industrial age. In doing so, the history of mining methods, important events, technological developments, the important firms and the sparkling personalities that built the industry are examined in detail. At every stage, as the history of mining is traced from 40,000BC to the present day, the level of detail increases in accordance with the greater social and industrial developments that have played out as time has progressed. This means that a particular focus is given to the period since the industrial revolution and especially the 20th century. A look is also taken into the future in an effort to chart the direction this great industry might take in years to come. Many books have been written about mining; the majority have focused on a particular metal, geographical area, mining event or mining personality, but 'The History of Mining' has a broader scope and covers all of these essential and fascinating areas in one definitive volume.

Mining Software Specifications Jan 26 2022 An emerging topic in software engineering and data mining, specification mining tackles software maintenance and reliability issues that cost economies billions of dollars each year. The first unified reference on the subject, Mining Software Specifications: Methodologies and Applications describes recent approaches for mining specifications of sof

Mining and its Impact on the Environment May 06 2020 Winner of the 2007 E.B. Burwell, Jr. Award of the Geological Society of America Mining activity has left a legacy of hazards to the environment, such as waste, unstable ground and contamination, which can be problematic when redeveloping land. This book highlights the effects of past mining and provides information on the types of problems it may cause in both urban and rural areas. By way of example, the book also demonstrates how such problems may be anticipated, investigated, predicted, prevented and controlled. Furthermore, it shows how sites already affected by mining problems and hazards can be remediated and rehabilitated. Covering subsidence, surface mining, disposal of waste, problems resulting from mine closure and mineral processing, Mining and its Impact on the Environment is an excellent reference for practising mining and geotechnical engineers, as well as students in this field.

Mining in the Himalayas Jun 26 2019 The book explains how mining in the Himalayas is practiced and what needs to be done for the future. Critiques of and gaps in mining and environmental practices are discussed at length and existing practices are described through case studies of limestone, magnesite and soapstone mining. The author's three decades of rich experience and analysis enriches the discussions of how advance developmental planning can assist in project efficiency, how hill slopes can be managed and how mining practices can be dovetailed

with the social fabric of the Himalayas. This reference book contains new, practical and eco-friendly solutions/ideas with eight detailed case studies, along with an environmental degradation index (EDI) for application in fragile areas. An integrated development approach has been advocated for mining bearing areas with emphasis on best practices and environment-oriented development along with an integrated strategy on a watershed basis for development and exploitation of Himalayan mineral resources. This book also explains and emphasizes that to satisfy human mineral needs, a balance between mining and environment must be struck and achieved for development and exploitation of Himalayan mineral resources. Himalayan countries (or other similar mountain systems) can benefit from the content of this exclusive first book on Himalayan mining. Book jacket.

Introductory Mining Engineering Dec 01 2019 An introductory text and reference on mining engineering highlighting the latest in mining technology Introductory Mining Engineering outlines the role of the mining engineer throughout the life of a mine, including prospecting for the deposit, determining the site's value, developing the mine, extracting the mineral values, and reclaiming the land afterward. This Second Edition is written with a focus on sustainability-managing land to meet the economic and environmental needs of the present while enhancing its ability to also meet the needs of future generations. Coverage includes aboveground and underground methods of mining for a wide range of substances, including metals, nonmetals, and fuels. Completely up to date, this book presents the latest information on such technologies as remote sensing, GPS, geophysical surveying, and mineral deposit evaluation, as well as continuous integrated mining operations and autonomous trucks. Also included is new information on landscape restoration, regional planning, wetlands protection, subsidence mitigation, and much more. New chapters include coverage of: * Environmental responsibilities * Regulations * Health and safety issues Generously supplemented with more than 200 photographs, drawings, and tables, Introductory Mining Engineering, Second Edition is an indispensable book for mining engineering students and a comprehensive reference for professionals.

Statistics for Mining Engineering Sep 09 2020 Many areas of mining engineering gather and use statistical information, provided by observing the actual operation of equipment, their systems, the development of mining works, surface subsidence that accompanies underground mining, displacement of rocks surrounding surface pits and underground drives and longwalls, amongst others. In addition, the actual modern machines used in surface mining are equipped with diagnostic systems that automatically trace all important machine parameters and send this information to the main producer's computer. Such data not only provide information on the technical properties of the machine but they also have a statistical character. Furthermore, all information gathered during stand and lab investigations where parts, assemblies and whole devices are tested in order to prove their usefulness, have a stochastic character. All of these materials need to be developed statistically and, more importantly, based on these results mining engineers must make decisions whether to undertake actions, connected with the further operation of the machines, the further development of the works, etc. For these reasons, knowledge of modern statistics is necessary for mining engineers; not only as to how statistical analysis of data should be conducted and statistical synthesis should be done, but also as to understanding the results obtained and how to use them to make appropriate decisions in relation to the mining operation. This book on statistical analysis and synthesis starts with a short repetition of probability theory and also includes a special section on statistical prediction. The text is illustrated with many examples taken from mining practice; moreover the tables required to conduct statistical inference are included.

The Impact of Mining Lifecycles in Mongolia and Kyrgyzstan Oct 23 2021 This volume investigates how mining affects societies and communities in Mongolia and Kyrgyzstan. As ex-Soviet states, Mongolia and Kyrgyzstan share history, culture and transitions to democracy. Most importantly, both are mineral-rich countries on China's frontier and epi-centres of resource extraction. This volume examines challenges communities in these countries encounter on the long journey through resource exploration, extraction and mine closure. The book is organised into three related sections which travel from mine licensing and instigation to early anticipation of benefit through the realisation of social and environmental impacts to finite issues such as jobs, monitoring, dispute resolution and reclamation. Most originally, each chapter will include a final section entitled 'Notes from the Field' that presents the voice of in-country researchers and stakeholders. These sections will provide local contextual knowledge on the chapter's theme by practitioners from Mongolia and Central Asia. The volume thereby offers a distinctively grounded perspective on the tensions and benefits of mining in this dynamic region. Using Mongolia and Kyrgyzstan as case studies, the volume reflects on the evolving challenges communities and societies encounter with resource extraction worldwide. The book will be of great interest to students and scholars of mining and natural resource extraction, corporate social responsibility and sustainable development.

The Business of Mining Sep 02 2022 The Business of Mining complete set of three Focus books will provide readers with a holistic all-embracing appraisal of the analytical tools available for assessing the economic viability of

prospective mines. Each volume has a discrete focus. This first volume presents an overview of the mining business, followed by an analysis of project variables and risk, an overall coverage of the royalty agreements, pricing and contract systems followed by a final chapter on accounting standards and practises for the minerals industry. The books were written primarily for undergraduate applied geologists, mining engineers and extractive metallurgists and those pursuing course-based postgraduate programs in mineral economics. However, the complete series will also be an extremely useful reference text for practicing mining professionals as well as for consultant geologists, mining engineers or primary metallurgists.

Making Sense of Mining History Jul 08 2020 This book draws together international contributors to analyse a wide range of aspects of mining history across the globe including mining archaeology, technologies of mining, migration and mining, the everyday life of the miner, the state and mining, industrial relations in mining, gender and mining, environment and mining, mining accidents, the visual history of mining, and mining heritage. The result is a counter balance to more common national and regional case study perspectives.

Global Challenges for Innovation in Mining Industries Jul 20 2021 Offering the first in-depth global analysis of the innovation ecosystem in the mining industry, this book is aimed at policy-makers and academia alike. A wide range of international contributors assess this from different perspectives, using both a novel mining patent and innovation database and a wide set of analytical approaches.

Modern Management in the Global Mining Industry Oct 11 2020 This book brings together perspectives from economics, specifically minerals economics, to the management of global mining companies. It covers volatile price forecasting, cost analysis, investment decisions, and the social, environmental, and developmental impacts of mining.

How Mining Works Aug 28 2019 Finally - Mining in Clear and Understandable Language How Mining Works explains complex mining concepts in a way simple enough for those who are not familiar with the industry, yet thorough enough to be useful to long-time professionals. This colorful book presents a logical and sensible sequence for acquiring a strong working knowledge of the world of mining. Chapter 1 provides a quick geology review, explaining how the earth is structured ... how, why, and where mineral ores are created ... and how technological advances help us make educated guesses about where to locate new mines. The next three chapters present mining and refining operations. Chapter 2 offers in-depth explanations about the different types of mining, the equipment and procedures needed for both surface and deep mining, and Chapter 3 follows with six methods for processing the ore into usable refined metal. And, since not all mines produce metals, Chapter 4 covers nonmetallic operations that produce coal, diamonds, and aggregates such as clays and feldspars. The second half of the book puts mining in the context of the wider world. Chapter 5 examines four types of mining waste (including several subcategories) and how to deal with each. Chapter 6 looks at labor practices, environmental sustainability, and worker and community health and safety--all critical in today's highly regulated environment. Chapter 7 highlights mining economics, with detailed information on how mine products are priced, monetary arrangements between mines and smelters, and even the impact of reserves on mining's future. Chapter 8 takes a visionary yet practical look at the future of mining, covering not only advances in expected areas (like robotics) but also in biotechnology, with a fascinating look at how plants, insects, and various microbes could be used to extract metals. Appendix A provides a crash course in the chemistry sometimes needed to understand why rock goes in and metal comes out.

Mining in the Arctic Apr 16 2021 Topics in this international symposium on mining in the arctic included arctic mining in Raglan; analysis and prediction of water infiltration in underground, frozen placer mines; red dog mine-operations update and design of paste tailings disposal in the Russian Sub-Arctic.