

renewable energy, and urban disaster prevention and disaster management. Among specific topics are land subsidence and urban development, petroleum geosciences education to guarantee sustainable and environmental friendly oil and gas production in Indonesia, a case study of finding subsurface structures by seismic interferometry, geothermal energy development in Indonesia, and submarine landslides as a hidden geohazard for human security. The proceedings are not indexed.

QE48 978-2-7108-1002-5
Shared earth modeling; knowledge driven solutions for building and managing subsurface 3D geological models.
 Perrin, Michel and Jean-Francois Rainaud.
 Editions Technip, ©2013 400 p. \$90.00 (pa)

Perrin (retired geology, École des Mines de Paris) and geophysicist Rainaud, with a French company, describe developments in various fields of computer sciences—such as solid modeling and knowledge engineering—that can provide useful techniques for solving several crucial issues around modeling geological reservoirs. They were part of a research project begun just after the turn of the century that took geological objects within earth models and the chronology of geological events associated with them, as the core of the earth modeling process. They also worked within the framework of shared earth modeling, in which modelers and end-users have access to the data and assumptions at any time. This approach requires that the modeling not be data-driven, but knowledge-driven, dependent on the interpretation of data by geoscientists. The information could be used by geologists, engineers, and managers involved in studying and evaluating subsurface reservoirs and hydrocarbon exploration. Distributed in the US by Atlas Books.

QE85 2012-039065 978-0-87842-598-3
Arizona rocks!; a guide to geologic sites in the Grand Canyon state.

Bryan, T. Scott.
 Mountain Press, ©2013 105 p. \$18.00 (pa)
 Bryan, a former mining geologist with the National Park Service, identifies 44 sites of geological interest in Arizona and offers tips on visiting the monuments and parks. Numerous color photographs and maps illustrate rock formations, mineral deposits, fossils, mine pits, and roads for accessing the locations. Recommended for public library collections and adventurous tourists.

QE501 2012-011834 978-1-4443-3502-6
Paleomagnetism of sedimentary rocks; process and interpretation.

Kodama, Kenneth P.
 Wiley-Blackwell, ©2012 157 p. \$99.95
 Kodama (earth and environmental sciences, Lehigh U.) offers a description of the paleomagnetism of sediments and sedimentary rocks, how they are magnetized, and how the physical and chemical causal processes may influence the accuracy of paleomagnetism. Topics include importance and reliability, depositional remnant magnetization, how to detect and correct a compaction-shallowed inclination, tectonic strain effects on remanence, and processes and their interpretation. While technical, the writing is clear and straightforward. The book is intended for paleomagnetists, students, and earth scientists using sedimentary paleomagnetic data.

QE571 2012-031369 978-1-118-48539-2
Linking diagenesis to sequence stratigraphy.

Title main entry. Ed. by Sadoon Morad, Marcelo Ketzer and Luis F. De Ros. (International Association of Sedimentologists; 45)
 Wiley-Blackwell, ©2012 522 p. \$149.95
 The typically independent and isolated methods of diagenesis and sequence stratigraphy, when integrated, can serve as a powerful tool for the understanding and prediction of the distribution of diagenetic alterations of depositional porosity and permeability and of their impact on reservoir quality distribution and evolution for those working in the fields of sedimentary petrology, sequence stratigraphy, and petroleum geology. This volume contains nineteen papers that review the principles of this integrated methodology and present case studies showing its implementation in the investigation of carbonate, siliciclastic, and mixed carbonate-siliciclastic successions in different geological settings.

QE634 2012-031754 978-0-8137-1210-9
Tectonics of the southeastern Tibetan Plateau and its adjacent foreland. (CD-ROM included)

Burchfiel, B. C. and Chen Zhiliang. (Memoir; 210)
 Geological Society of America, ©2012 231 p. \$80.00
 The study is the result of over 25 years of cooperation between geologists and geophysicists at the Massachusetts Institute of Technology and many

different Chinese agencies. Burchfiel (earth, atmospheric, and planetary sciences; Massachusetts Institute of Technology) and Chen (land and resources; Chengdu Institute of Geology and Mineral Resources) focus on the evolution of the 14 tectonic units in the region from middle Paleozoic to Recent, with a major emphasis on Mesozoic and Cenozoic time. A final chapter synthesizes the relationships between the units. No index is provided.

QE675 2012-039245 978-0-8137-2495-9
Mesozoic assembly of the North American Cordillera.

Hildebrand, Robert S. (Special paper; 495)
 Geological Society of America, ©2013 169 p. \$75.00 (pa)
 Hildebrand (geology, U. of California-Davis) expands on the model for the development of the North American Cordillera that he introduced in Special Paper 457. Finding observational disparities with the hypothesis of a long-lived eastwardly dipping subduction zone, he offers an alternative collisional model in which the western edge of North America was partially subducted to the west beneath the Rubian ribbon continent. The collision of the two initially led to the localized Sevier fold-thrust belt, he posits, and later to the more extensive Laramide deformational event.

BIOLOGY

QH131 978-0-9567795-8-8
Alfred Russel Wallace's 1886-1887 travel diary; the North American tour.

Title main entry. Ed. by Charles H. Smith and Megan Derr.
 Siri Scientific Press, ©2013 258 p. \$45.00 (pa)
 Naturalist Alfred Russel Wallace, a contemporary of Darwin in the mid-19th-century, was active in many areas of natural and social science; he was also a proponent of spiritualism. This diary from his ten-month lecture tour across North America offers his notes on natural history as well as the many people he met, including well-known Americans of the era. This edition of Wallace's diary is annotated and contains some of his published writing from the same time period. It is illustrated with b&w historical photos. Editors Smith and Derr are affiliated with Western Kentucky University.

QH75 2012-017200 978-0-470-67478-9
Biodiversity conservation and poverty alleviation; exploring the evidence for a link.

Title main entry. Ed. by Dilys Roe, Joanna Elliott, Chris Sandbrook and Matt Walpole. (Conservation science and practice; no.12)
 Wiley-Blackwell, ©2013 336 p. \$79.95 (pa)
 This collection of twenty essays examines the benefits that biodiversity conservation does and doesn't have for poverty alleviation. They emerge from a 2-day symposium in 2010 assessing the findings of an 8 year target by the Convention on Biological Diversity to reduce the rate of biodiversity loss as a strategy for poverty alleviation. The essays are organized into five parts that explore the potential for synergy between ecological services and poverty reduction, the effect different ecological settings have on biodiversity and poverty, the impact of different conservation interventions, issues related to organization and distribution, and biodiversity and poverty relationships in the context of global challenges. The research draws on experiments from around the world and challenges assumptions that economic frameworks bring to both conservation and poverty reduction. The contributors are independent consultants, employees from environmental nonprofits, and professors of geography, anthropology and environmental studies.

QH75 2012-016197 978-0-470-67145-0
Conservation and the genetics of populations, 2d ed.

Allendorf, Frederick W. and Gordon Luikart, Sally N. Aitken.
 Wiley-Blackwell, ©2013 602 p. \$79.95 (pa)
 In this unique text for advanced undergraduate and graduate students in conservation genetics, natural resource management, and conservation biology, and professional conservation biologists working for wildlife and habitat management agencies, Allendorf (U. of Montana and Victoria U. of Wellington, New Zealand), Luikart, and Aitken outline the background and concepts needed to apply genetic information to conservation plans for species threatened with extinction and manage species of ecological or commercial importance. They review the study of genetic variation in natural populations of plants and animals, detail the basic principles of population genetics theory with an emphasis on concepts relevant for problems in conservation, and synthesize these principles and apply them to topics in conservation, such as exploited populations, invasive species, and hybridization. In guest boxes, their colleagues present their work in conservation genetics. This edition has new chapters on climate change and the genetic effects of harvest; revises other chapters; adds