



**Earth & Marine Sciences**

**New Titles**

Understanding  
Time in Taphonomy

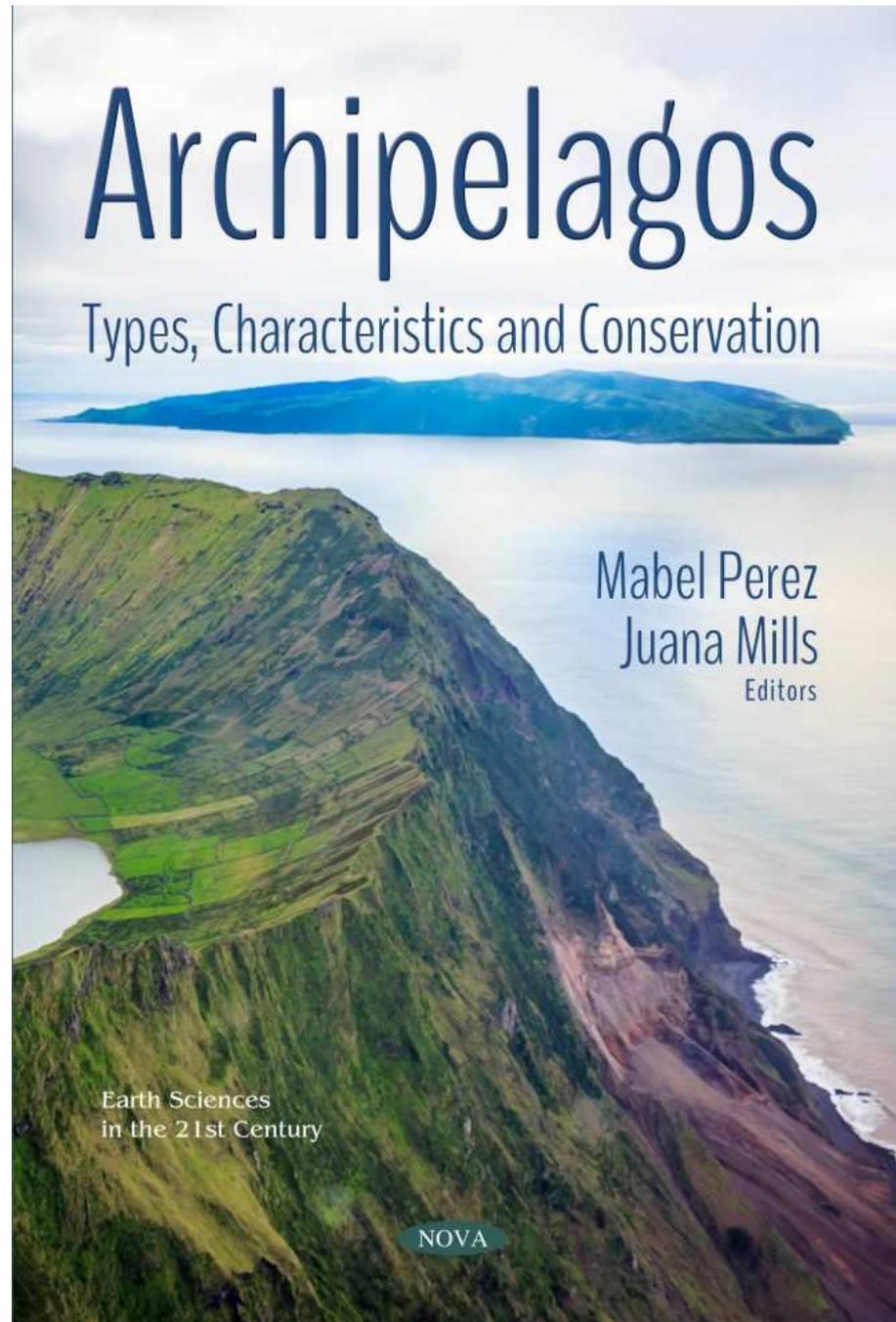
Archipelagos

An Evaluation of  
Groundwater  
Storage Potentials  
in a Semiarid  
Climate

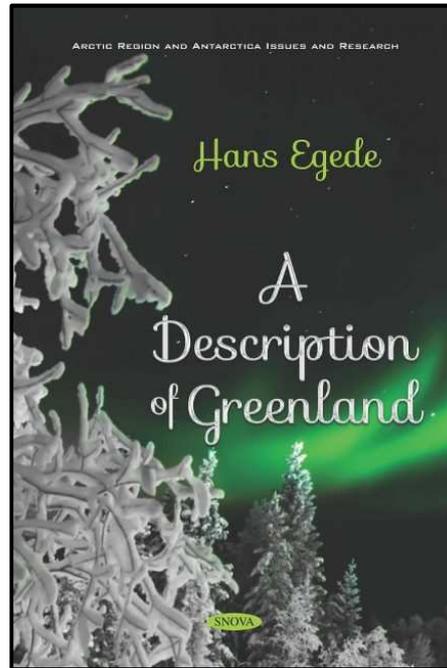
Tribology in  
Geology and  
Archaeology

A Description of  
Greenland

Managing  
Stormwater



**Titles published by Nova Science**



**A Description of Greenland**

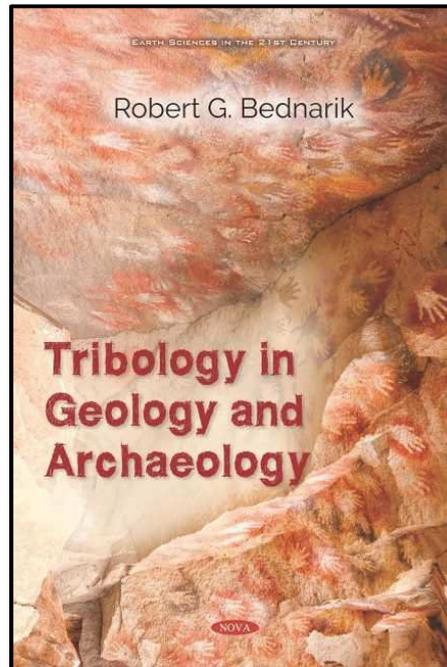
Hans Egede

Hans Egede was a Lutheran missionary who launched mission efforts to Greenland. He embarked for Greenland, with his wife and four small children, the 12th of May, 1721; and he landed in Ball's River, the 3d of July. He established a successful mission among the Inuit and is credited with revitalizing the island.

*March 2019 - 185 pages*

*PB (9781536150773) £90.99*

*Publisher: Nova Science Publishers*



## **Tribology in Geology and Archaeology**

Robert G. Bednarik

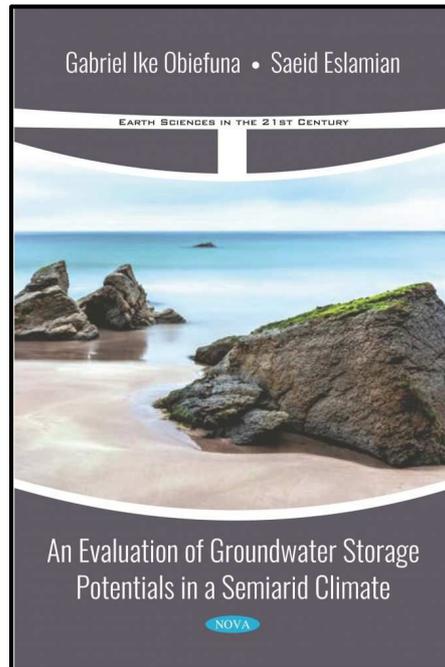
Tribology, the science of interacting surfaces in relative motion, has traditionally focused on technological applications, although some attention has been given to geotribology and tribochemistry. This volume explores the geological applications of tribology in some detail, before introducing the entirely new subdisciplines of archaeotribology and the tribology of rock art. The various geological, archaeological, and rock art applications are then correlated through the detailed description of a tribological phenomenon of the natural world that was only discovered most recently, kinetic energy metamorphosis (KEM).

This newly described phenomenon was first observed as a by-product of rock art production, but it was subsequently recognized as a widespread physical process whose effects are much more common in both geology and archaeology. Not only does this book illuminate the holistic and thus inter-disciplinary character of natural processes, it also presents the need to view tribology as a science connected to many other fields. Therefore, this volume advocates an extended scope for a science traditionally focused on aspects of friction, wear, and lubrication of machines. This enhances the importance of tribology, while at the same time enriching disciplines that have never even been considered to have potential connections with tribology. The book therefore succeeds in demonstrating that, ultimately, all disciplines are interconnected in the magnificent web of science, in which all fields of scientific enquiry must play a role.

*March 2019 - 322 pages*

*HB (9781536149098) £219.99*

*Publisher: Nova Science Publishers*



## **An Evaluation of Groundwater Storage Potentials in a Semiarid Climate**

Gabriel Ike Obiefuna, Saeid Eslamian

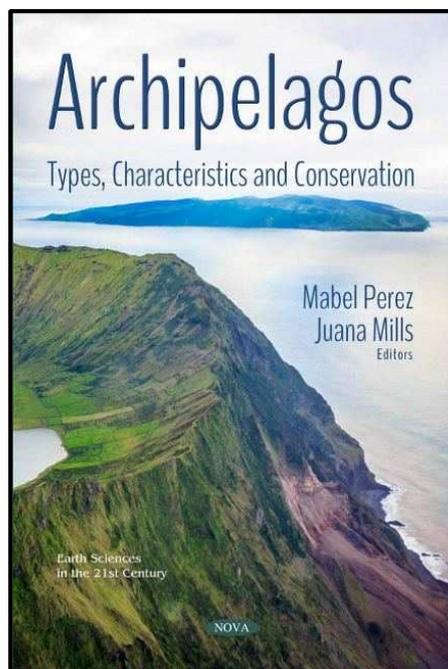
This book focuses on evaluating the groundwater storage potentials of a semiarid environment of northeastern Nigeria. The book uses the proven and well established methods and approaches in identifying aquifer types and calculating aquifer parameters, simulating groundwater flow net and transport. We also employ the measured and estimated water budget parameters in evaluating groundwater storage potentials of a hitherto virgin area of Nigeria.

We have featured more than 24 figures, diagrams and illustrations to highlight the major themes, that are important in the retention of key concepts. This book presents a holistic approach to advances in groundwater hydrology from recent developments in reservoirs and hydraulics and analytic modeling of transient multi-layer flow. This book therefore integrates the real life data and gives the examples of processes that make the content practical and implementable. These are the examples of developments in groundwater hydrology that underscored perspectives regarding the challenges faced by industry, professionals, researchers and academia.

*April 2019 - 122 pages*

*PB (9781536149005) £90.99*

*Publisher: Nova Science Publishers*



**Archipelagos**  
**Types, Characteristics and Conservation**

Edited by Mabel Perez, Juana Mills

*Archipelagos: Types, Characteristics and Conservation* begins by examining the Canary Islands and their characteristic orography and regime of winds that affect this archipelago. Investigations were carried out by the authors which allowed for the characterization of the atmospheric corrosion for metals of wide industrial use.

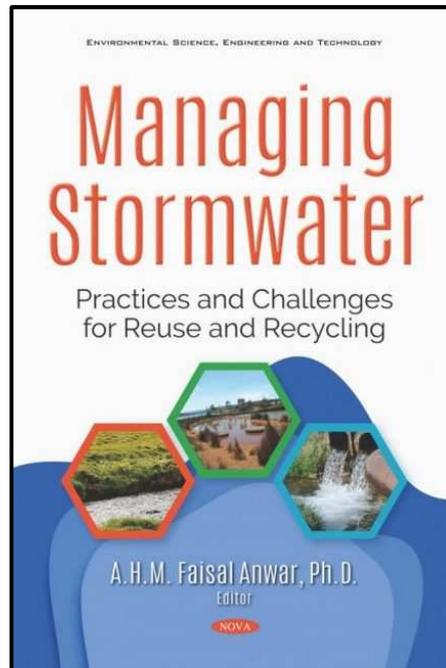
Due to its geographical location, the Azores archipelago is one of the perfect places to observe and study the characteristics of atmospheric processes. The remote conditions of the islands allow for the monitoring of greenhouse gases without the influence of local sources of pollution. Consequences of climate change are also discussed.

The closing chapter discusses a new paradigm in the sol-gel synthesis, particularly in the synthesis of bioactive glass. In this new approach, the deionized water is replaced by highly ionized and naturally acidified thermal water collected from springs located in Furnas Volcano. Given the potential impact of these waters on the structure and bioactivity of sol-gel bioactive glass, special emphasis is given to their genesis, physicochemical properties and ionic diversity.

*January 2019 - 103 pages*

*PB (9781536146813) £78.99*

*Publisher: Nova Science Publishers*



## **Managing Stormwater Practices and Challenges for Reuse and Recycling**

Edited by A.H.M. Faisal Anwar

Current freshwater availability is reducing because of climate change, rapid urbanization, and an increase in population. Due to these situations, the identification of alternative water resources has become a main focus of research world-wide. Among all alternatives, stormwater has been found as most promising for reuse and recycling. The rapid development of urban and suburban areas has limited the natural infiltration of storm water because of increased impermeable areas, which in turn, increase the risk of urban and suburban flooding.

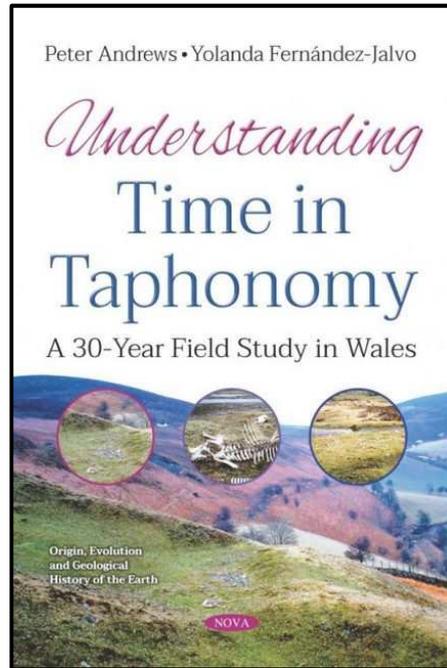
Urban and suburban stormwater runoff carries a significant amount of pollutants, such as heavy metals, hydrocarbons, pesticides, and bacteria. The sources of pollutants and their contribution to urban stormwater runoff are highly dependent on the land use pattern. These pollutants are harmful to the environment and a threat to human health at higher concentrations. In order to maintain healthy waterways, it is necessary to develop sustainable management of stormwater.

Stormwater management practices involve many challenges for its reuse and recycling, which are the main focus areas of this book. Available management practices consist of collecting and discharging the stormwater into rivers, ponds, or nearby retention basins. The best management practices (BMPs) may include oil and grit separators, grassed swales, vegetated filter strips, biofiltration/bioretention ponds, constructed wetlands, gross pollutant traps, and catch basin inserts.

*May 2019 - 532 pages*

*HB (9781536152500) £219.99*

*Publisher: Nova Science Publishers*



## **Understanding Time in Taphonomy A 30-Year Field Study in Wales**

Peter Andrews, Yolanda Fernandez-Jalvo

*Understanding Time in Taphonomy* investigates time as it affects taphonomy. All taphonomic agents operate through time, which may be long or short, so time adds another dimension to taphonomic change. The processes and modifications recorded in fossils can tell us how long the fossils took to accumulate and the geological/biological/environmental context in which they fossilized.

Measuring time in taphonomy requires long-term studies of taphonomic processes operating at the present time. In 1976, one of the authors (PA) started a 30-year monitoring project of animals that died natural deaths at Neuadd in Wales. The study area of 680ha of upland heathland, woodland and rough grazing were monitored. Over 100 sheep, horses, foxes, badgers, rabbits and small mammals were monitored, but only 56 yielded useful results. YFJ has also begun a similar study at Riofrio in Spain, and other long-term studies are reviewed.

This 30-year study highlighted several time-specific taphonomic issues. Trampling of Neuadd specimens produced pitting and superficial scratching found commonly on fossils. Longer striations mimicking cut marks are common, particularly on bones in rocky substrates. The number and morphology of these pseudo-cut-marks are compared with cut marks made during human butchery. There is only a weak relationship with exposure time.

*February 2019 - 209 pages*

*PB (9781536146752) £90.99*

*Publisher: Nova Science Publishers*



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