

Contents

Living with Sea Level Change and Dynamic Landscapes: An Archaeological Perspective	1
<i>Geoffrey N. Bailey and Geoffrey C. P. King</i>	
History of Ischia Harbour (Southern Italy)	27
<i>Stefano Carlino, Elena Cubellis, Ilia Delizia and Giuseppe Luongo</i>	
“And an Island Never Cries”: Cultural and Societal Perspectives on the Mega Development of Islands in the United Arab Emirates	59
<i>Pernilla Ouis</i>	
The Dramatic Drop of the Dead Sea: Background, Rates, Impacts and Solutions	77
<i>Shahrazad Abu Ghazleh, Abdulkader M. Abed and Stephan Kempe</i>	
The Red Sea–Dead Sea Canal: Its Origin and the Challenges it Faces	107
<i>Damien Closson, Herbert Hansen, François Halgand, Nada Milisavljevic, Frédéric Hallot and Marc Acheroy</i>	
Red Sea Heliohydropower: Bab-al-Mandab Sill Macro-Project	125
<i>Roelof D. Schuiling, Viorel Badescu, Richard B. Cathcart, Jihan Seoud and Jaap C. Hanekamp</i>	
The Hormuz Strait Dam Macroproject	149
<i>Roelof Schuiling, Viorel Badescu, Richard Cathcart and Piet van Overveld</i>	
Construction Techniques for Deep-Water Immersed Tunnel Using Real-Time Sea Strait Current Forecast	167
<i>Yukinobu Oda, Kazunori Ito, Takahide Honda and Solomon Yim</i>	

xxxi

Ecological Energy Conversion of Oceanic and Afferent River Water Currents.	199
<i>Mircea Dimitrie Cazacu and Sergiu Nicolaie</i>	
Wave Energy Assessments and Modeling of Wave-Current Interactions in the Black Sea	213
<i>Eugen Rusu</i>	
The Sea Highway Macro-Project: A Multiple-Advantage Infrastructural Installation for Necessary Twenty-First Century Stabilization of Romanian Coastline Erosion	261
<i>Mircea Dimitrie Cazacu and Dan Aurel Machita</i>	
The Black Sea: A Georeactor to Immobilize Metal Wastes	275
<i>R. D. Schuiling</i>	
Advantageous Techno-Naturalization of the Seawater in the Black Sea	281
<i>Mircea Dimitrie Cazacu and Raducu Viorel Iancu</i>	
Proto-Type of Replicable Industrial Black Sea H₂S Gas Extraction Plant	289
<i>Salah A. Naman, I. Engin Ture and T. Nejat Veziroglu</i>	
Oxygenation of Large Volumes of Natural Waters by Geo-Engineering: with Particular Reference to a Pilot Experiment in Byfjorden	303
<i>Anders Stigebrandt and Bengt Liljebladh</i>	
Aral Sea Partial Refill with Imported Caspian Sea Water.	317
<i>Richard B. Cathcart and Viorel Badescu</i>	
Aral Sea Rehabilitation with Irtysh Imports.	351
<i>Roelof D. Schuiling and Viorel Badescu</i>	
Urumia Lake: Hydro-Ecological Stabilization and Permanence.	365
<i>Hossein Golabian</i>	
Sediment Transport by Wind and Water: The Pioneering Work of Ralph Bagnold	399
<i>Michael Welland</i>	
Dune: Arenaceous Anti-Desertification Architecture	431
<i>Magnus Larsson</i>	

Dune Sand Fixation: Mauritania Seawater Pipeline Macroproject	465
<i>Viorel Badescu and Richard B. Cathcart</i>	
Treeing the CATS: Artificial Gulf Formation by the Chotts Algeria-Tunisia Scheme	489
<i>Nicola M. Pugno, Richard B. Cathcart and Joseph J. Friedlander</i>	
Mapping of the Qattara Depression, Egypt, Using SRTM Elevation Data for Possible Hydropower and Climate Change Macro-Projects	519
<i>Ragab A. Hafiez</i>	
Assessing the Climate Response to Major Surface Inundation: Lake Eyre, Australia	533
<i>Pandora Hope, Andrew B. Watkins and Robert L. Backway</i>	
Macro-Engineering Lake Eyre with Imported Seawater	553
<i>Viorel Badescu, Richard B. Cathcart, Marius Paulescu, Paul Gravila and Alexander A. Bolonkin</i>	
Can Geoengineering Sustain Critical Ocean Currents?	583
<i>Peter C. Flynn and Jason Songjian Zhou</i>	
Calling Upon Neptune: Ocean Energies as “Renewables”	595
<i>Roger H. Charlier</i>	
Coastal Ecosystem Management Using a Wave Energy-driven Seawater Pump: Some Mega-engineering and Environmental Aspects	635
<i>S. P. R. Czitrom, I. Penié and G. de la Lanza</i>	
Wave Powered Desalination	657
<i>Stephen H. Salter, Joao M. B. P. Cruz, Jorge A. A. Lucas and Remy C. R. Pascal</i>	
A Novel Macro-Engineering Approach to Seawater Desalination	675
<i>Alexander A. Bolonkin, Shmuel Neumann and Joseph J. Friedlander</i>	
The Ike Dike: A Coastal Barrier Protecting the Houston/Galveston Region from Hurricane Storm Surge	691
<i>William J. Merrell, Lyssa Graham Reynolds, Andres Cardenas, Joshua R. Gunn and Amie J. Hufton</i>	

Kalpasar: Potential Coastal Impacts for India of a Mega-Engineering Project “Fulfilling All Wishes” 717
D. Venkata Subba Rao

The Bering Strait Seawater Deflector (BSSD): Arctic Tundra Preservation Using an Immersed, Scalable and Removable Fiberglass Curtain. 741
Richard B. Cathcart, Alexander A. Bolonkin and Radu D. Rugescu

Index 779