



Howard T. Odum possessed one of the most innovative minds of the twentieth century. He pioneered the fields of ecological engineering, ecological economics, and environmental accounting, working throughout his life to better understand the interrelationships of energy, environment, and society and their importance to the well-being of humanity and the planet.

This volume is a major modernization of Odum's classic work on the significance of power and its role in society, bringing his approach and insight to a whole new generation of students and scholars. For this edition Odum refines his original theories and introduces two new measures: emergy and transformity. These concepts can be used to evaluate and compare systems and their transformation and use of resources by accounting for all the energies and materials that flow in and out and expressing them in an equivalent ability to do work. Natural energies such as solar radiation and the cycling of water, carbon, nitrogen, and oxygen are diagrammed in terms of energy and emergy flow. Through this method, Odum reveals the similarities between human economic and social systems and the ecosystems of the natural world. In the process, we discover that our survival and prosperity are regulated as much by the laws of energetics as are systems of the physical and chemical world.