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 Ecological Engineering"; "PRINCIPLES IN ECOLOGICAL ENGINEERING";
 "Self-design"; "The Acid Test"; "A Synthesis, not Reductionism"

Sommario/riassunto

Engineering within Ecological Constraints presents a rare dialogue
 between engineers and environmental scientists as they consider the
 many technical as well as social and legal challenges of ecologically
 sensitive engineering. The volume looks at the concepts of scale,
 resilience, and chaos as they apply to the points where the ecological
 life support system of nature interacts with the technological life
 support system created by humankind. Among the questions addressed
 are: What are the implications of differences between ecological and
 engineering concepts of efficiency and stability? How can engineering
 solutions to immediate problems be made compatible with long-term
 ecological concerns? How can we transfer ecological principles to
 economic systems? The book also includes important case studies on
 such topics as water management in southern Florida and California
 and oil exploration in rain forests. From its conceptual discussions to
 the practical experience reflected in case studies, this volume will be
 important to policymakers, practitioners, researchers, educators, and
 students in the fields of engineering, environmental science, and
 environmental policy.