This book is the second (of three) volume of papers presented at the "First International Conference on Remediation of Contaminated Sediments" that was held in Venice, Italy, in October 2001. The first volume, as noted in the review, contained papers on sediment characterization. This volume moves forward to the task of site remediation (management).

Many sediment pollutants are persistent, remaining in place for many years, threatening to adversely impact human health and the environment. Dredging is a common remedial step, but itself may cause problems. It is estimated that as much as 10% of dredged material is contaminated, and disposal of these contaminated materials in controlled sites (as opposed to open water dumping) is expensive. Moreover, the dredging process itself may release contaminants.

This volume contains 33 papers published under the following major headings:

- Policies (seven papers),
- Human-health risk assessment (three papers),
- Ecological risk assessment (four papers),
- Risk assessment of PCB-contaminated sediments (two papers),
- Toxicity measurements (five papers),
- Dredging (three papers),
- Management of dredged materials (six papers),
- Confined disposal facilities (three papers).

Not being able to review all of the papers in this volume, I took an editor's liberty of focusing on the topic of the most interest to me. That topic was discussed in the last section of the book—"Confined Disposal Facilities". The first paper, which was from the United States, discussed the remediation of three sites and construction of confined disposal facilities: (1) a nearshore 59-ha disposal site near Fort McHenry, Maryland; (2) an upland CDF near Boston designed to contain solidified and stabilized contaminated sediments; and (3) a site designed to hold 110,000 m^3 of dredged contaminated sediments.

Subsequent papers discussed construction of an immersed tunnel in Norway. The project required construction of two CDF to hold contaminated sediments. A German paper discussed the Port of Hamburg's dredged material management concept that includes land treatment, beneficial use and disposal of contaminated sediments, as well as sustainable relocation of sediments.

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Gary F. Bennett

Characterization of Contaminated Sediments

Marco Pellei, Augusto Porta, Robert E. Hinchee (Eds.), Battelle Press, Columbus, OH, 2002, US$ 75.00, 365 pp., ISBN: 1-57477-127-2

Characterization of Contaminated Sediments is the first of three volumes of papers presented at the "First International Conference on Remediation of Contaminated Sediments" held in Venice, Italy, in October 2001. Contaminated sediments are a world-wide problem

in both freshwater and marine systems. Not only are many chemicals toxic, but also they are persistent.

This volume focuses on approaches for identifying and quantifying contaminants in sediments and methods for studying the fate and transport of contaminants in sediments and wetlands. Several sections within the volume address specific categories of contaminants—PCBs, PCDD/Fs, hydrocarbons, and heavy metals—while others focus on modeling for site characterization, full-scale characterization, and pilot studies.

This volume contains 41 papers written by scientists from 15 different countries. The papers are divided into the following categories:

PCB- and PCDD/F-contaminated sites (five papers),
Heavy metals-contaminated sites (eight papers),
Modeling for site characterization (eight papers),
Full-scale site characterization (seven papers),
Pilot studies (seven papers),
Oil and gas industry-contaminated sites (six papers).

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Gary F. Bennett

Partition and Adsorption of Organic Contaminants in Environmental Systems
Cary T. Chiou (Ed.), Wiley/Interscience, New York, NY, 2002, US$ 89.95, 267 pp., ISBN 0-471-23325-0

The author introduces the book in his preface as follows:

> The concern for the presence of a wide variety of contaminants in the environment calls for development and assemblage of information about their behavioral characteristics, so that appropriate strategies can be adopted to either prevent or minimize their adverse impacts on human welfare and natural resources. This information is especially warranted for toxic chemicals that persist for extended periods of time in the environment. When chemicals enter the environment, they are usually not confined to a specific location, but rather are in dynamic motion either within a medium or across the adjacent media. The propensity for a contaminant to move into and distribute itself between the media (or phases) is determined by its physical and chemical properties and environmental factors and variables. The quantity of a contaminant in a given medium and the state of its existence affect its environmental impact. It is therefore important to understand what drives a contaminant from one medium to another and the manner and extent that a contaminant associates with the different media or phases within a local environmental system.

This book will aid markedly in that task.
The book provides that information by describing how

> . . . nonionic organic contaminants are sorbed to natural biotic and abiotic substances. The book focuses on physical principles and system parameters that affect the contami-