



Winter 1980

**Marine Mining of the Continental Shelf: Legal, Technical and Environmental Considerations, Michael S. Baram, David Rice, and William Lee**

Louis H. Singer

**Recommended Citation**

Louis H. Singer, *Marine Mining of the Continental Shelf: Legal, Technical and Environmental Considerations, Michael S. Baram, David Rice, and William Lee*, 20 Nat. Resources J. 206 (1980). Available at: <https://digitalrepository.unm.edu/nrj/vol20/iss1/19>

This Book Review is brought to you for free and open access by the Law Journals at UNM Digital Repository. It has been accepted for inclusion in Natural Resources Journal by an authorized editor of UNM Digital Repository. For more information, please contact [amywinter@unm.edu](mailto:amywinter@unm.edu), [lsloane@salud.unm.edu](mailto:lsloane@salud.unm.edu), [sarahrk@unm.edu](mailto:sarahrk@unm.edu).

# MARINE MINING OF THE CONTINENTAL SHELF: LEGAL, TECHNICAL AND ENVIRONMENTAL CONSIDERATIONS

By MICHAEL S. BARAM, DAVID RICE & WILLIAM LEE  
Cambridge: Ballinger Publishing Company, 1978. Pp. 301

This book is concerned with the technical, environmental, and legal aspects of mining the hard minerals of the U.S. continental shelf. It does not address the subjects of offshore oil and gas or the manganese nodules of the deep ocean floor. The purpose of the study is to “inform and guide government decision making” (p. 16). By means of a “technology assessment,” the authors seek to develop recommendations for “an effective, ‘technology forcing’ regulatory program for social control of marine mining” (p. 19).

The book’s discussion of the technological feasibility of marine mining describes and evaluates the technologies available for finding and controlling the positioning of ships at sea, for exploration and extraction, and for onshore processing operations. After identifying the methods by which marine mining can be conducted, the authors are in a position to assess the environmental effects thereof and point out the many likely adverse consequences of operations associated with the extraction of offshore minerals: the creation of craters on the ocean floor, the removal of benthic organisms, and the release of tailings or hopper overflow, to name only a few. They argue, however, that the area in which environmental effects may be felt as the result of a specific mining project is small in comparison with the total area of submerged lands, and conclude that the trade-offs between economic gains and environmental damage from a demonstration marine mining project can be “relatively low in societal risk” (p. 102). This argument, however, begs an important question: are there significant economic gains to be made from hardrock marine mining of the continental shelf?

Much of the book consists of a discussion of the federal and state laws and regulations which apply to offshore activities, focusing on the current and proposed rules pursuant to which marine mining is or would be conducted. This material contains an exhaustive and well organized examination of how six coastal states—Alaska, California, Connecticut, New Jersey, New York and Texas—manage their offshore resources and control offshore mining.

Notably absent from this study is an analysis of whether mining of the continental shelf is economically viable. Although Chapter One sets forth a lengthy list of minerals “determined to be of current

significance," much of the book's discussion belies such determination. Thus, in Chapter Three the authors state that no commercial interests in tin have been announced; there is "little American interest" in exploiting heavy mineral sands; "prospects of diamonds off the U.S. coast appear negligible"; "it is unlikely that there will be major interest in either exploring for or mining offshore coal," etc. The authors do argue for the offshore extraction of sand and gravel, asserting that a "technology assessment" of the sort they have undertaken is necessary in light of the fact that "[r]ecently the Department of the Interior announced its intention to make outer continental shelf lands available for hard minerals extraction under its authority" (p. 50). However, the proposed regulations of the Department of the Interior alluded to in this quote and referred to throughout the book were published in early 1974; final, effective regulations have not yet been adopted.

In the concluding chapter, the authors state that "relatively compelling circumstances should be found before programs for mining the seabed are to be authorized" (p. 277). The authors' view appears to be that such circumstances can be found (pp. 2-3, 277). Given that this view is not uniformly held (and in fact may be in the minority), the authors would have done well to address this important and threshold issue.

LOUIS H. SINGER\*

---

\* Associate, LeBoeuf, Lamb, Leiby & MacRae, New York, NY.