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"Common Heritage" v. "Freedom Of The High Seas": Which Governs The Seabed?*

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The Reagan administration's "reappraisal" of the United States position in the Third United Nations Conference on the Law of the Sea (UNCLOS III) has been accompanied by a reexamination by scholars and advocates of the legal principles governing the mining of polymetallic nodules on the deep seabed. This article reviews the position currently espoused by the United States in light of earlier negotiations, previous positions taken by the United States, logical problems with the United States position, and practical difficulties that would be faced if entrepreneurs based in the United States attempt to mine without the protec—

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tions of an internationally-agreed-upon regime. The authors conclude that the United States is wrong as a matter of law in asserting that seabed mining is a freedom of the high seas and is unwise as a matter of policy in thinking that United States corporations could profitably mine the polymetallic nodules of the deep seabed outside of an internationally recognized seabed authority.

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I. INTRODUCTION

If you start with the premise that the United States has a paramount right, as a freedom of the high seas, to engage in seabed mining... then anything that is done by way of subjecting American companies to regulation by an international body is by definition a concession. But you can start from a very different point of departure, and that is to recognize that nobody even thought about getting at the resources of the deep seabed until a decade or so ago, and that immediately raised the question of whose resources are these.

As soon as that question was raised, they were declared to be the common heritage of mankind, and 130-some countries took that to mean that the
resources belong to the world and that nobody therefore has any right of access to them until and unless they gain that right of access pursuant to an international agreement and under a body thereby established. If you look at it in this way then the question of the terms and conditions of access and so on seem to take on quite a different coloration.

—Elliot Richardson, then the United States Ambassador to the Third United Nations Conference on the Law of the Sea, in 1979

U.S. citizens are to pay all of these millions of dollars to an international organization for rights they presently enjoy at no cost under the well-recognized International Law Doctrine of the Freedom of the High Seas.


In August 1980, Elliot Richardson, the United States Ambassador to the protracted Third United Nations Conference on the Law of the Sea (UNCLOS III), told the Conference that "the substance of a new comprehensive Treaty, in very close to final form, is at hand." The negotiations, he predicted, would be completed in 1981.

The Reagan administration has, however, altered this timetable. One of the first foreign-policy actions taken by the new administration in early 1981 was to tell the delegates that the United States would not participate in further negotiations until it could


5. Id.
thoroughly review the Draft Convention. The proposed regime governing the mining of polymetallic nodules in the deep seabed was apparently the main cause for this reappraisal.

Some representatives of the private seabed mining consortia have been vocal in their opposition to the proposed treaty, although they do not speak with a single voice. In reference to a previous negotiating text, Marne A. Dubs, Director of Ocean Resources for Kennecott Copper and spokesperson on seabed mining for the American Mining Congress, wrote: "If the present negotiating text is not substantially changed . . . and it instead enters into force in anything like its present form, there will be no U.S. ocean mining industry." On the other hand, Paul Peters, a member of a different seabed mining group, said after the announcement of the Reagan reappraisal that the current negotiat-


The most recent text, like previous drafts, creates an International Seabed Authority (ISA). All entities wishing to mine the seabed must receive permits from the ISA. Developed nations and private companies must submit two mine sites to the ISA; the ISA grants them one and reserves the other for the use of its mining arm, the Enterprise, or for developing countries.

The Reagan administration has replaced the key individuals in the old negotiating team. N.Y. Times, Mar. 9, 1981, at 1, col. 1. The dismissal of the negotiators, called a "second Saturday night massacre" by Richardson, could indicate the present administration's deep dissatisfaction with the present negotiating text. Deputy Secretary of State William Clark said the administration wanted a "clean break" with the past. Id.

7. The polymetallic nodules (also frequently called manganese nodules) are dark, potato-shaped rocks that occur on the floor of the world's oceans. They vary in their mineral content, but are chiefly valuable for nickel; copper, manganese, and cobalt are of secondary importance. Although nodules occur almost everywhere in the deep oceans, deposits of sufficient quality to warrant commercial exploitation in the foreseeable future exist primarily in a narrow band stretching from Baja California to about 1000 miles south of Hawaii, a region called the Clarion and Clipperton Fracture Zones. See III J. Frazer & M. Fisk, Availability of Copper, Nickel, Cobalt and Manganese from Ocean Ferromanganese Nodules (1980); Frazer, Manganese Nodule Reserves: An Updated Estimate, 1 Marine Mining 103 (1977). For general discussions of polymetallic nodule deposits and seabed mining, see G. Glasby, Marine Manganese Deposits (1977); J. Mero, The Mineral Resources of the Sea (1965).

Deepsea mining for polymetallic nodules is a technologically sophisticated process. To date, prototype equipment has been tested but equipment capable of sustained commercial recovery has not been built. Five major consortia—four multinational, one French—have been formed to develop seabed mining technology and processing methods and to explore for nodule deposits. Since the mid-1960s, they have spent about $200 million; a full-scale commercial project will cost about $1 billion. See Arthur D. Little, Inc., Technological and Economic Assessment of Manganese Nodule Mining and Processing (1979).

When Ambassador James L. Malone, current head of the United States delegation, testified before Congress to explain the new administration's reasons for delaying the negotiations, he focused exclusively on the deep seabed mining provisions of the proposed treaty. He complained about the “burdensome international regulation” that would restrain private prospecting for the polymetallic nodules; the creation of “a supranational mining company, called the Enterprise, which would benefit from significant discriminatory advantages relative to the companies of industrialized countries;” the mandatory transfer of technology “now largely in U.S. hands” to the Enterprise and private mining companies in developing countries; the production limitations; the governing structure of the International Seabed Authority’s Assembly and Council; the revenue-sharing provisions; and other provisions that limit the freedom of action of the private consortia from the developed world.

The principal issue that underlies the current “reappraisal” over whether the United States should eventually ratify this treaty is the question whether it is lawful for a nation to mine the polymetallic nodules without treating the resource as part of the “common heritage” of humankind, without adhering to international standards, and without sharing the profits with the rest of the world. The United States gave significant support to the common heritage idea during the Nixon administration, but, during the last few years, our spokespersons have declared that the exploitation of deep seabed resources is a freedom of the high seas under current law. As Ambassador Richardson noted, however,
only a few other countries share this opinion: "We insist that there is a right under international law to engage in seabed mining as a high seas freedom, but there are only a dozen or 15 countries that take that position. . . ." Opposing the United States are at least 130 nations, including the 119 developing nations represented by the Group of 77, China, and, at least since 1978, the Soviet Union and the other Eastern European nations.


20. Most developing countries have argued since the late 1960s that seabed mining prior to a comprehensive international regime is unlawful. A United Nations General Assembly resolution, the "Moratorium Resolution," G.A. Res. 2574, 24 U.N. GAOR, Supp. (No. 30) 10, U.N. Doc. A/7630 (1969), declared such mining unlawful. The Resolution passed by a vote of 62-28, with 28 abstentions. Almost all of the developed nations, including the United States and the socialist nations, voted against the Resolution. The United States and other developed nations denied any legally binding effect of the Resolution. INT'L LEGAL MATERIALS 831 (1970) (statement of John R. Stevenson, Legal Adviser, United States Department of State.)

The developing nations have picked up support since the late 1960s. The Soviet Union now argues that unilateral exploitation prior to a treaty is "illegal." U.N. Doc. A/CONF.62/SR. 109 at 30 (1978) (statement of USSR representative). At the same time, statements supporting the position of the Group of 77 were made by representatives of China, Poland, the German Democratic Republic, Norway, Finland, the Netherlands, New Zealand, and Australia. U.N. Doc. A/CONF.62/BUR/SR. 41. The most recent expression of international views on interim seabed mining is contained in Resolution 108(V) ("Exploitation of the Resources of the Sea-Bed"), adopted by the Trade and Development Board of the United Nations Conference on Trade and Development (UNCTAD). U.N. Doc. A/CONF.62/79 (1979). This resolution:

1. Reiterates that any unilateral action in contravention of the pertinent resolutions [referring to the 1970 Declaration of Principles and a 1978 UNCTAD resolution calling upon all nations to refrain from exploiting the seabed until an international regime is adopted] would not be recognized by the international community and would be invalid according to international law;

2. Requests all States to refrain from adopting legislation or any other measure designed to carry on the exploitation of the sea-bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, until an international regime is adopted by the United Nations Conference on the Law of the Sea;

3. Warns that States which might take such unilateral actions would have to assume the responsibility for their consequences both with respect to their impact on the United Nations Conference on the Law of the Sea and with regard to the negotiations on commodities related to the exploitation of mineral resources of the sea-bed.
The United States position was formalized to some extent by the passage in 1980 of the Deep Seabed Hard Minerals Resources Act,21 which establishes a system whereby a potential miner can

The resolution was adopted by a roll call vote of 107 to 9, with 13 abstentions. The voting breakdown was as follows:

In favour: Afghanistan, Algeria, Argentina, Bahrain, Bangladesh, Barbados, Bhutan, Botswana, Brazil, Bulgaria, Burma, Byelorussian Soviet Socialist Republic, Central African Empire, Chile, China, Colombia, Comoros, Congo, Costa Rica, Cuba, Cyprus, Czechoslovakia, Democratic Kampuchea, Democratic People's Republic of Korea, Democratic Yemen, Djibouti, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Fiji, Gabon, Gambia, German Democratic Republic, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Hungary, India, Indonesia, Iran, Iraq, Ivory Coast, Jamaica, Kenya, Kuwait, Lebanon, Lesotho, Liberia, Libyan Arab Jamahiriya, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritius, Mexico, Mongolia, Morocco, Mozambique, Niger, Nigeria, Oman, Pakistan, Panama, Papua New Guinea, Peru, Philippines, Poland, Qatar, Republic of Korea, Romania, Rwanda, Sao Tome and Principe, Saudi Arabia, Senegal, Sierra Leone, Singapore, Somalia, Sri Lanka, Sudan, Surinam, Swaziland, Switzerland, Syrian Arab Republic, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukrainian Soviet Socialist Republic, Union of Soviet Socialist Republics, United Arab Emirates, United Republic of Tanzania, Upper Volta, Uruguay, Venezuela, Viet Nam, Yemen, Yugoslavia, Zaire, Zambia.

Against: Belgium, France, Germany, Federal Republic of Italy, Japan, Luxembourg, Netherlands, United Kingdom of Great Britain and Northern Ireland, United States of America.

Abstentions: Australia, Austria, Canada, Denmark, Finland, Greece, Ireland, Israel, New Zealand, Norway, Portugal, Spain, Sweden.


21. The Deep Seabed Act, supra note 18, § 2(b)(2), declares itself to be transitional, pending the entry into force of a comprehensive Law of the Sea treaty. It authorizes the Administrator of the National Oceanic and Atmospheric Administration to issue licenses for exploration, and permits for commercial recovery of the deep seabed resources to United States citizens or corporations and other entities controlled by United States citizens. Id. § 102(a). No commercial recovery is permitted prior to January 1, 1988, a date sought by Ambassador Richardson to minimize international friction while not slowing the timetables of private seabed miners. United States citizens are forbidden to engage in seabed exploration or exploitation unless they receive a license or permit. Id. § 101(a). The applicant selects the area of the seabed it wants. This area must be granted to it unless the area is not a "logical mining unit" or if mining would cause significant detriment to the environment. Id. § 103(D). If competing applications are received for the same area of the seabed, the Administrator shall decide between them using "principles of equity," including the time when the applicant began exploring the area in question, and the amounts it has expended. Id. § 101(b)(3). See also Deep Seabed Mining (Proposed Regulations), 46 Fed. Reg. 18458 (1981). A license for exploration entitles the license-holder to a later permit for commercial exploitation on the site chosen. The Deep Seabed Act, supra note 18, § 102(b)(3).

The miner will obtain security of tenure on its granted site against other claimants through three kinds of protections. First, the United States will exercise its jurisdiction over its own citizens to prevent them from interfering with the holder
receive interim permits to explore and exploit the seabed. This legislation had been introduced repeatedly in the 1970's, and the eventual support for it by Ambassador Richardson and the Carter administration was intended both as a boost to the domestic seabed mining industry and as a prod to the law of the sea negotiations. The statute prohibits significant commercial exploitation of the seabed until January 1, 1988, in order to give the United Nations negotiators a chance to complete their work. It does, however, permit the licensing of mine sites and substantial preliminary investment and preparation prior to that time.

The stage thus appears to be set for a major international confrontation on seabed mining, with the bulk of the debate centering on the current international law that governs the seabed. This question has been reviewed widely in the legal literature, but of a license or permit. *Id.* § 102(b)(2). Second, other nations can become "reciprocating states," by enacting similar legislation. Reciprocating states will receive recognition of claims by their citizens from the United States in return for their recognition and protection of American claims. *See* text at notes 237-64 *infra.* Third, the Deep Seabed Act requires the Secretary of State to attempt to reconcile conflicts with the citizens of other nations. The Deep Seabed Act, *supra* note 18, § 102(b)(4).

The permit holder, after beginning commercial recovery, must pay a proportion of its revenue into an escrow fund which will be used for international revenue sharing required by a future Law of the Sea Treaty. 30 U.S.C. § 1472(a) (1980). *See also* notes 168-74 and accompanying text *infra.*

The Deep Seabed Act could have positive and negative effects on the ability of the United States to conclude a treaty. By declaring the intent of Congress that such a treaty should not "impose significant new economic burdens" on seabed miners, Congress may have created barriers to its eventual acceptance of a treaty that is bound to impose much greater financial obligations on private seabed miners than the Deep Seabed Act. *See* notes 239-64 and accompanying text *infra.* On the other hand, some of the insecurity private seabed miners might feel in facing the International Seabed Authority might be reduced by the Act and the reciprocating states provisions. These provisions will allow the miners to agree among themselves who will seek which sites.

22. The seabed mining companies agreed to the Jan. 1, 1988 starting date for commercial exploitation with the understanding that they would be allowed to carry out "revenue producing" mining activities at 40 to 50% of full production levels for the primary purpose of testing equipment prior to that date. 126 CONG. REC. S7832 (daily ed. June 23, 1980) (remarks of Sen. Magnuson).


one more analysis seems justified because of the magnitude of the issue, current events, and international legal obligations. This article will explore all dimensions of this question but will start at the heart of the issue: can seabed mining logically be viewed as a freedom of the high seas?

II. THE FREEDOMS OF THE HIGH SEAS: IS SEABED MINING ONE OF THEM?

A. The Text and Commentaries of the 1958 Convention on the High Seas

Before the mid-1960's, few scholars argued that the exploitation of the deep seabed was a freedom of the high seas.25 Today, however, the United States and a few other developed countries argue that the deep seabed is subject to the legal regime of the high seas and that seabed mining is lawful as a freedom of the high seas.26 The source most often cited as showing that polymetallic nodule mining is a freedom of the high seas has been the 1958 Geneva Convention on the High Seas,27 especially article 2 and its associated Commentaries.28


26. See notes 18-20 and accompanying text supra.


The ILC was established by the United Nations to promote the progressive development and codification of international law. Its members are elected by the General Assembly. During most of the time it debated the draft articles on the law of the sea, its members were Gilberto Amado (Brazil), Douglas Edmonds (United States), Gerald Fitzmaurice (United Kingdom), J. P. A. Francois (Netherlands), F. V. Garcia Amador (Cuba), Shuhsi Hsu (China), Faris el-Khoury (Syria),
The text of article 2 reads as follows:

The high seas being open to all nations, no State may validly purport to subject any part of them to its sovereignty. Freedom of the high seas is exercised under the conditions laid down by these articles and by the other rules of international law. It comprises, *inter alia*, both for coastal and non-coastal States:

(1) Freedom of navigation;
(2) Freedom of fishing;
(3) Freedom to lay submarine cables and pipelines;
(4) Freedom to fly over the high seas.

These freedoms, and others which are recognized by general principles of international law, shall be exercised by all States with reasonable regard to the interests of other States in the exercise of the freedom of the high seas.29

This language is the key to the arguments made by Theodore G. Kronmiller (now Deputy Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs),30 the United States Department of State in its official statements,31 former Congressman John Murphy,32 Professor Stephen J. Burton,33 and Northcutt Ely.34 Their argument is that seabed mining is a freedom of the high seas included among the unstated *"inter alia"* because of language in the Commentaries.

The Commentaries, prepared by the International Law Commission (ILC), are not a part of the Convention on the High Seas; they were never voted on by representatives of nations. But international law permits the use of *travaux preparatoires* like the Commentaries to elucidate the meaning of a treaty when the treaty itself is ambiguous.35 *Travaux preparatoires* are to be

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31. See Brower statement, supra note 18.
33. *Burton*, supra note 24, at 1170-76.
35. See articles 31 and 32, *Vienna Convention on the Law of Treaties, done May 23, 1969, U.N. Doc. A/CONF.35/L.27*, at 289 (1969) [hereinafter cited as *International Law Materials* 679 (1959)]. These articles state that the *travaux preparatoires* of a negotiating conference can be used only as a "supplementary" means of interpretation, to be examined only when the language and primary sources of interpretation (a) leave

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used with caution: they are important only if they truly reflect the intent of the parties. The Commentaries would be important if (1) they help show the meaning given to the Convention by the signatory nations, or (2) if the ILC in its deliberations had found customary international law and expressed it in the Commentaries.

The Commentaries to article 2 are elusive but arguably offer some support for the idea that deep seabed mining is one of the freedoms of the high seas. The first Commentary of the International Law Commission included the following language:

The list of freedoms of the high seas contained in this article is not restrictive; the Commission has merely specified four of the main freedoms. It is aware that there are other freedoms, such as freedom to explore or exploit the subsoil of the high seas and freedom to engage in scientific research therein...37

The second Commentary, prepared for submission to the United Nations General Assembly with the draft articles of all of the Conventions on the Law of the Sea, contained language that seems to recognize the uncertainty of the subject:

The Commission has not made specific mention of the freedom to explore or exploit the subsoil of the high seas. It considered that apart from the case of the exploitation or exploration of the soil or subsoil of a continental shelf—a case dealt with separately in section III below—such exploitation had not yet assumed sufficient practical importance to justify special regulation.38

The “exploitation or exploration of the soil or subsoil of a continental shelf” did not, of course, become a high seas freedom. Instead, it is within the exclusive jurisdiction of the coastal State.39

As applied to the deep seabed beyond national jurisdiction,
these oft-cited Commentaries are simply ambiguous.\textsuperscript{40} Although it is possible to read the Commentaries as stating that deep seabed mining is a freedom of the high seas, that is certainly not the only possible interpretation.\textsuperscript{41} More importantly, no evidence exists that this interpretation was adopted in the Convention\textsuperscript{42} or that the Commentaries to article 2 express customary international law.\textsuperscript{43}

The history and text of the Commentaries provide further evidence why they should not be used to make sweeping claims about the legal status of the deep seabed. These Commentaries were the product of a struggle of one of the members of the ILC, Professor Georges Scelle, against the continental shelf doctrine. Scelle, a Frenchman, believed that national jurisdiction over the continental shelf violated the traditional freedom of the high seas.\textsuperscript{44} When it became clear that he would be unsuccessful in opposing the continental shelf doctrine, Scelle pressed for an explicit limit to the continental shelf, beyond which the regime of the high seas would apply. Scelle also objected to the ILC’s failure to include seabed mining as a freedom of the high seas in its draft article 2.\textsuperscript{45} The ambiguous language of the Commentaries was apparently prepared in part to satisfy Scelle's concerns, and he in fact said that he was “satisfied” with the Commentaries.\textsuperscript{46} They in effect side step the issues that divided the members of the Commission.

Taken as a whole, the Commentaries point out the lack of interest in the deep seabed. Had the ILC considered the issue in detail, it is doubtful that it would have decided that deep seabed mining was a freedom of the high seas. In the second Commentary to article 2,\textsuperscript{47} the ILC differentiated between the continental shelf and the deep seabed and said that the continental shelf required “special regulation.” This “special regulation” for the continental shelf that has evolved is not merely some variant of the regime of the high seas; it is coastal state jurisdiction. If the deep seabed had assumed “sufficient practical importance,” the “special regulation” chosen for it likewise probably would not have been the regime of the high seas.

\begin{footnotes}
\textsuperscript{40} See notes 37-39 and accompanying text \textit{supra}, and notes 44-51 and accompanying text \textit{infra}.
\textsuperscript{41} See notes 44-51 and accompanying text \textit{infra}.
\textsuperscript{42} See notes 44-59 and accompanying text \textit{infra}.
\textsuperscript{43} See notes 44-51 and accompanying text \textit{infra}.
\textsuperscript{44} See, e.g., [1955] \textit{1 Y.B. INT’L L. COMM’N} 7.
\textsuperscript{45} Id. at 58.
\textsuperscript{46} Id. at 282.
\textsuperscript{47} See note 38 and accompanying text \textit{supra}.
\end{footnotes}
In fact, it is possible that the ILC would have proposed something like the "common heritage" idea for the deep seabed. Professor Scelle, the source of the Commentary's freedom of the seas language on seafed mining, had earlier proposed an "international administrative authority set up within the framework of the United Nations" to govern the exploitation of submerged areas beyond the territorial sea. It is ironic that his efforts at the ILC are now used as the primary authority to argue that such an international authority should not govern the deep seabed.

Even if the first Commentary is read to state that deep seabed mining is a freedom of the high seas, it cannot be seriously argued that this Commentary was expressing or codifying customary international law. The ILC's members, including Scelle, never mentioned any precedent, practice or authority for finding such a freedom. It is puzzling that the ILC's members never mentioned the res nullius alternative for the deep seabed, even though that was the clear preference of scholars up to that time.

49. See note 37 and accompanying text supra.
50. The only discussion of this aspect of the Commentary came when Jaroslav Zourek, another member of the ILC, objected that "the question of exploitation of the subsoil of the high seas had not been discussed at the present session and furthermore no such right existed in international law." [1955] 1 Y.B. Int'l L. Comm'n 282, U.N. Doc. A/CN. 4/SER. A. Scelle met this objection only by commenting that he "knew of no rule prohibiting the exploration and exploitation, where possible, of the subsoil of the high seas." Id. Scelle's comment that no prohibitory rule exists, if accepted, still does not establish that mining is a freedom of the high seas. There would be no prohibitory rule if the law were silent on the deep seabed, or if the seabed were a res nullius. See notes 117-128 and accompanying text infra.
51. See notes 97-105 and accompanying text infra. The ILC had discussed and rejected res nullius for the continental shelf, but the reasons for that rejection—to prevent noncontiguous nations from claiming continental shelves adjacent to other countries—would not necessarily apply to deep ocean basins hundreds or thousands of miles from land.

To understand the work of UNCLOS I fully with respect to the deep seabed, the Convention on the Continental Shelf must also be considered. See note 28 supra and note 89 infra. The Convention on the Continental Shelf raised the question of whether jurisdiction over the continental shelf had any limit beyond that imposed by technology.

A few nations—mainly those not blessed with ample continental shelves—opposed the doctrine entirely, arguing that the exploitation of all submerged areas beyond the territorial sea was a high seas freedom. 6 UNCLOS I, Off. Rec. 7-8, U.N. Doc. A/CONF.13/42 (summary of remarks of Mr. Pfeiffer, West German delegate). This point of view failed, but in asserting jurisdiction over the continental shelf, few nations declared any position with regard to the legal status of the deep seabed beyond.

The Indian delegate posed the question: if continental shelf jurisdiction ended at 200 metres, what regime, if any, was proposed for the exploitation of the area
The texts of the Conventions produced at UNCLOS I are obviously more important than the ILC’s Commentaries. There the record is clear: no decision was made, even implicitly, on the legal status of the deep seabed. Although article 2 with its “inter alia” language was adopted, no evidence indicates that seabed mining was meant to be among the inter alia.\textsuperscript{52}

It appears that Lebanon shared this concern. \textit{Id.} at 38 (summary of remarks of Mr. Fattal, delegate from Lebanon). France was almost alone in specifying the status of submerged lands beyond the continental shelf as high seas. To the other delegates, the “exploitability” clause in the definition of continental shelf jurisdiction [see note 89 infra] apparently made the question of no practical importance. Because exploitation was expected to proceed incrementally down the continental shelf, national jurisdiction would extend to cover it. Exploitation leap-frogging to mid-ocean—for polymetallic nodules, for instance—was unforeseen.

In its instrument of accession to the Convention on the Continental Shelf, France declared with respect to article 1 that “the expression, ‘adjacent’ areas, implies a notion of geophysical, geological, and geographical dependence which \textit{ipso facto} rules out an unlimited extension of the continental shelf.” Multilateral Treaties in Respect of Which the Secretary-General Performs Depository Functions, List of Signatures, Ratifications, Accessions, etc. as of 31 December, 1979, at 584, U.N. Doc. ST/LEG/SER. D/13. The United States and United Kingdom were unwilling to commit themselves to the French position. The United States declared in September 1965 that it noted the French declaration “without prejudice.” \textit{Id.} at 586. The United Kingdom representative said in 1966 that the declaration “does not call for any observations on the part of the Government of the United Kingdom.” \textit{Id.}

\textit{Id.} at 34 (summary of remarks of Mr. Gros, a delegate of France). It appears that Lebanon shared this concern. \textit{Id.} at 38 (summary of remarks of Mr. Fattal, delegate from Lebanon). France was almost alone in specifying the status of submerged lands beyond the continental shelf as high seas. To the other delegates, the “exploitability” clause in the definition of continental shelf jurisdiction [see note 89 infra] apparently made the question of no practical importance. Because exploitation was expected to proceed incrementally down the continental shelf, national jurisdiction would extend to cover it. Exploitation leap-frogging to mid-ocean—for polymetallic nodules, for instance—was unforeseen.

France declared with respect to article 1 that “the expression, ‘adjacent’ areas, implies a notion of geophysical, geological, and geographical dependence which \textit{ipso facto} rules out an unlimited extension of the continental shelf.” Multilateral Treaties in Respect of Which the Secretary-General Performs Depository Functions, List of Signatures, Ratifications, Accessions, etc. as of 31 December, 1979, at 584, U.N. Doc. ST/LEG/SER. D/13. The United States and United Kingdom were unwilling to commit themselves to the French position. The United States declared in September 1965 that it noted the French declaration “without prejudice.” \textit{Id.} at 586. The United Kingdom representative said in 1966 that the declaration “does not call for any observations on the part of the Government of the United Kingdom.” \textit{Id.}

\textit{Id.}

52. Seabed mining beyond the continental shelf is not mentioned at all in the discussions of article 2. 4 UNCLOS I, Off. Rec. at 37-56, U.N. Doc. A/CONF.13/40 (1958). The only explicit proposal to add to the four freedoms specified by the ILC was from Portugal, which wanted to include a freedom of exploration and scientific research. \textit{Id.} at 55, U.N. Doc. A/CONF.13/C.2/L.7 (1958). This proposal was rejected. \textit{Id.}

A further problem exists with the use of the Commentaries to determine the meaning of article 2. The Commentaries speak only of the \textit{subsoil} of the high seas, not the \textit{seabed}. The distinction between seabed and subsoil had been of cardinal importance to many earlier writers on the submerged regions beyond the territorial sea. Saffo, \textit{supra} note 24, at 504 n.51. To some, the “seabed” was the two-dimensional interface between the waters of the ocean and the ocean floor; the “subsoil” was the underlying rock strata. Polymetallic nodules rest on the seabed, petroleum deposits are in the subsoil.

To some writers, although national claims to the seabed might jeopardize the freedom of navigation on the high seas, claims to the subsoil need not create such threats because the subsoil could be exploited by lateral mines driven from shore. 1 L. OPPENHEIM, INTERNATIONAL LAW 133-35 (8th ed. 1955); C. COLOMBOUS (1967), \textit{supra} note 25.

By the mid-1950s lateral mines for coal had been driven into the subsoil of offshore waters of England, France, Chile, and other countries. Some mines went beyond the three-mile territorial sea, as deep as 1100 meters. [1956] 1 Y.B. Int’l L. Comm’n 131. The conferees at UNCLOS I needed to recognize the legitimacy of such mines, but did not want them included under the continental shelf doctrine, because they might have immediately extended the “exploitability” limit to 1100 meters. Their solution was to sanction such mining by coastal states separately in article 7 of the Convention on the Continental Shelf, \textit{supra} note 28.

It is entirely possible that delegates to UNCLOS I could have read the article 2 Commentaries as referring only to lateral mines, or referring only to the subsoil
In fact, the Convention on the High Seas appears to exclude the deep seabed altogether from the "high seas" as it defines that term. Article 1 gives us the definition: "The term 'high seas' means all parts of the sea that are not included in the territorial sea or in the internal waters of a State."

The Comment of the International Law Commission adds:

The waters of the sea belong either to the high seas or to the territorial sea or to internal waters. In the part of the present report dealing with the territorial sea, the Commission has attempted to define the limits of the territorial sea and indicated the base lines from which it should be measured. Waters within these base lines constitute internal waters. Article 1 and the articles contained in the chapter on the territorial sea thus furnish a definition of the high seas.

This definition of the high seas includes only the waters. When the ILC wanted to declare that the seabed of a region was subject to the same regime as the waters of the region, it did so in explicit terms. For example, the ILC's Commentary to the Draft Convention on the Territorial Sea declares: "The sovereignty of a coastal state extends also to the air space over the territorial sea as well as to its bed and subsoil."

The Convention on the High Seas recognizes that the laying of cables and pipelines on the bed of the high seas is a freedom of the high seas. But this recognition does not imply that seabed mining is a freedom of the high seas or that the seabed is to be considered as part of the high seas for all uses. The right to lay submarine cables and pipelines is a high seas freedom of all nations, even when the cables or pipes are placed on the continental shelf of another nation.
Cable-laying is a classic example of an activity that is a high seas freedom because of the nature of the activity. It is very similar to the traditional high seas freedom of navigation. Cables and pipelines do not interfere with the ability of others to use the oceans for the same purposes. Cables cross each other freely; pipelines can cross with appropriate engineering design. They use only a tiny portion of the ocean bottom. Cable-laying is entirely different than the exploitation of mineral resources, which are exhaustible.58 To the ILC, the nature of the activity was controlling, not the region in which it occurred; cable-laying on the continental shelf is a freedom of the high seas, but mineral exploitation on the continental shelf is the right of the coastal nation alone.59 Similarly, the high seas freedom to lay cables on the deep seabed in no way implies that the mineral exploitation of the deep seabed is also a freedom of the high seas.

B. Is the Analogy Logical?

The meaning of article 2 can therefore also be examined from the perspective of the nature of usage and logic.60 Whether seabed mining should be included as a high seas freedom should turn in the final analysis on whether it is logical to do so, in other words, whether seabed mining is analogous to the four listed freedoms in terms of the impact of mining on other competing uses and on the interests of other states. It has been observed that "[t]he relevance of an analogy depends of course on the degree to which common policy is found to underlie both the analogy and the new problem . . . ."61 With this observation as a guide, it will be seen that to call seabed mining a freedom of the high seas is an unwarranted extension of that doctrine, a total contradiction of the policies and principles underlying the freedom of the seas.

The arguments in favor of the freedoms of the high seas are usually traced to Grotius. He wrote that the seas must be free for navigation and fishing because natural law forbids the ownership less the cables or pipelines interfere with its exploitation of the natural resources of its continental shelf.

Although the right to lay submarine cables on the bed of the high seas was never challenged or questioned from the time the activity began in the late 1860's, [1950] 1 Y.B. Int'l L. Comm'N 199 (remarks of Judge Hudson), it was a long time before scholars in international law began to recognize cable-laying as a freedom of the seas. M. McDougal & W. Burke, The Public Order of the Oceans 755-56 (1962), citing Oppenheim, International Law 338 (1905) (cable-laying a "consequence" of the freedom of the seas.)

58. See notes 57-72 and accompanying text infra.
59. See note 57 supra.
60. For the negotiating history and interpretation of article 2, see notes 27-36, 41-59 and accompanying text supra.
61. M. McDougal & W. Burke, supra note 57, at 13 n.32.
of things that seem "to have been created by nature for common use."62 Things for common use are those that "can be used without loss to anyone else . . . "63 For example, the use of the seas for navigation by one nation does not diminish the potential for the same use by others.64 Since Grotius, the freedom of the seas has outgrown its natural-law roots; now both navigation and fisheries require some regulation.65 Nevertheless, the rules that developed governing the use of the sea as a common resource were tied to the special character of those uses. For example, States are free today to navigate and fish on the high seas so long as they do not diminish the resource or prejudice the future ability of other nations to use the seas.66 The new uses that were recognized as freedoms of the seas, such as cable-laying and scientific research,67 also did not diminish the use of the sea by others.

In contrast, seabed mining for polymetallic nodules is entirely different from any use previously recognized as a high seas freedom. Polymetallic nodules are an exhaustible resource, nonrenewable on any human time frame.68 Deposits of polymetallic

62. H. Grotius, Mare Liberum 28 (Magoffin trans. 1916).
63. Id. at 27.
64. Id. at 28.
65. The freedom of the high seas is exercised subject to the duty to pay a reasonable regard to the interests of others. The Marianna Flora 24 U.S. (11 Wheat.) 1 (1826); Convention on the High Seas, supra, note 27, art. 2.
66. Fisheries, though exhaustible, are renewable if properly managed. When it became clear that such management was essential, the international community made efforts to impose management agreements, Convention on Fishing and the Conservation of the Living Resources of the High Seas, supra note 28. Pollution of the high seas, another "freedom," was probably originally thought to injure no one. When it became obvious that it did, pollution too became subject to special agreements. International Convention for the Prevention of Pollution of the Sea by Oil, (1954) 12 U.S.T. 2939, T.I.A.S. Nos. 4900, 6109, 6505, 327 U.N.T.S. 3 (as amended); Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters, done Nov. 13, 1972, 11 Int'l Legal Materials 1294 (1972).
67. Not all uses claimed under the label of "scientific research" have been accepted by all as freedoms of the seas. The nuclear bomb tests in the Pacific have been extremely controversial. Margolis, The Hydrogen Bomb Experiments and International Law, 64 Yale L.J. 629 (1955) (tests by U.S.); Australia v. France, [1974] I.C.J. 253; New Zealand v. France, [1974] I.C.J. 497 (tests by France).
68. References have been made to the "renewability" of the manganese nodules, based upon the misinterpretation of a comment in Mero, Review of Mineral Values on or Under the Ocean Floor, in Exploiting the Ocean 61, 75-76 (1966), that the nodules, which grow by accretion, were adding perhaps ten million tons per year to their aggregate bulk throughout the world's oceans. Although the entire mass of the nodules in the oceans—perhaps totaling trillions of tons—might
nodules differ dramatically in their economic value, and the deposits that are economically attractive in the near future are limited. If exploited vigorously, the prime mine sites could be completely exhausted within a few decades. Mining could still be increasing by millions of tons per year, individual nodules grow very slowly, perhaps requiring millions of years to reach “harvestable” size. Any economically interesting deposit of nodules, once mined, will not be replaced for hundreds of thousands of years—if ever. Nodules are, in practical terms, no different than other nonrenewable mineral resources.

69. Economic analyses agree that to compete with terrestrial mines, a nodule deposit will have to contain at least 2.2 to 2.4% combined nickel and copper. Many of the nodules in the ocean have less than a quarter as much. The deposit should have an abundance of 5 to 10 kilograms of nodules per square meter of ocean floor. Frazer, supra note 7, and sources cited therein; Kaufman, The Selection and Sizing of Tracts Comprising a Manganese Nodule Ore Body, 11 Offshore Tech. Conf. Preprints 283 (1974). Deposits of sufficient quality have been found only in the Clarion and Clipperton Fracture Zone. See J. FRAZER & M. FISK, supra note 7. Nodules with lower metal content will be much less profitable to exploit. NYHART, ANTRIM, CAPSTAFF, KOHLER, & LESHAW, A Cost Model of Deep Ocean Mining and Associated Regulatory Issues ES-9 (1978) (hereinafter cited as MIT Model); Welling, Manganese-Nodule Mining: A Risk Management Assessment, in DEEP OCEAN MINING 61, 68 (J. Flipse ed. 1979). The MIT Model projected that decreasing the nickel-copper grade from 2.8% to 2% would cause a drop in the internal rate of return from 18.14% to 11.16%. Welling (Vice-president of Ocean Minerals Co.) indicated that decreasing the nickel grade from 1.5% to 1% would reduce the internal rate of return by about 35%.

70. How fast the best nodule deposits will be used up depends upon the size of the economically valuable resource and the pace and progress of seabed mining. The size of the reserves can be discussed either in terms of the total tonnage of nodules or in terms of “prime mine sites.” Although terrestrial mineral reserves are usually estimated in terms of total tonnage, in seabed mining it has become more common, and more useful, to speak of prime mine sites, because a consensus exists that each mining project, in order to obtain economies of scale and to operate long enough to recoup its investment, will need a mine site with a specified amount of nodules of sufficient quality. A prime mine site is usually defined as one large enough to provide a miner with 3 million tons per year of nodules for 20 or 25 years, Flipse, Dubs, & Greenwald, Preproduction Manganese Nodule Mining Activities and Requirements, in Hearings on Mineral Resources of the Deep Seabed, S.1134, Before the Senate Comm. on Interior and Insular Affairs, 93d Cong., 1st Sess. 607-14 (1973); 1 DAMES & MOORE, Description of Manganese Nodule Processing Activities for Environmental Studies 2-7 (1977). The size of such a mine site could range from roughly 25,000 to 110,000 square kilometers, Flipse, Dubs, & Greenwald, supra, with 50,000 square kilometers being a rough average. See Frazer, supra note 7, at 116.

The number of prime sites is controversial. Earlier estimates ranged up to 185. See Frazer, supra note 7 and sources cited therein. These high estimates served the purposes of the United States government in quelling the fears of foreign nations that American firms, which have a technological lead in seabed mining, would monopolize the resource. But the best estimates based on the most comprehensive data in the public domain now center around 28 with a possible range from 14 to 56 sites. See Frazer, supra note 7. If all of the hypothetical 28 sites were being exploited in the year 2000 at the rate of 3 million tons per year, they would produce about 56% of the world’s projected nickel consumption for that year. Seabed mining will probably expand more slowly, because of the huge capital costs—perhaps $1 billion for each project—and technological hurdles. One projection, admittedly a guess, indicates that ten 3-million ton per year projects could be operating by the year 2000, and about thirty by 2010. National Oceanic and At-
continue on poorer sites because, as the technology improves, seabed mining should become more competitive with terrestrial mining. But the first miners will take the better sites. Many of these better mine sites have already been identified and explored by scientific groups and by the private seabed mining consortia. For example, Deepsea Ventures, the predecessor of one of the seabed mining consortia, filed a “claim of discovery” for a 60,000 square kilometer tract of seabed in November 1974.71 Deepsea’s “claim” lies almost entirely within a 180,000 square kilometer area which apparently “is the most promising for seabed mining of all the areas studied.”72

The traditional high seas freedoms have favored the technologically advanced nations in the use of the oceans. The nations able to equip fleets capable of fishing in distant waters benefited from the freedom of fishing; the great maritime nations benefited from the freedom of navigation. These advantages resulted from the already privileged situation of the developed nations, but at least these uses by developed nations did not exhaust the possibility that other less developed nations might someday share, on equal terms, the great common resource of the oceans, undegraded by the prior use of others.73

Because of these logical and practical problems, neither the ILC nor the delegates to UNCLOS I committed themselves on the legal status of the deep seabed during the debates of the 1950’s. All resources that were expected to be important were, by definition, included in the continental shelf by the “exploitability” crite-
rion. The delegates and the members of the ILC expected future seabed exploitation to progress by gradual increments down the continental shelf. J.P.A. Francois, the Rapporteur of the ILC who drafted the Commentaries, expressed the general attitude: It seems to the Rapporteur that the Commission will not have to consider the freedom of States to explore or exploit the subsoil of the high seas outside the continental shelf. The construction of permanent installations for that purpose in sea areas where the depth exceeds 200 metres is at present impossible, and is likely to remain so for some considerable time.

The delegate from the United States made remarks that showed a similar disbelief that the deep seabed would ever be exploited. The official summary of her remarks was as follows: “Exploration could not, however, continue indefinitely toward the middle of the ocean; the continental slope fell away steeply and rapidly, so that exploitation beyond a certain limit would not be an economic proposition.” An official report to UNCLOS I indicated that exploitation beyond 200 meters was unlikely.

Now that exploitation of the deep seabed is possible, delegates from the United States and some other western nations are arguing that seabed mining has been and is now included among the freedoms of the high seas. It is not surprising that the developing nations have protested against this effort. These protests, apart from their value as evidence that seabed mining is not now a freedom under customary law, also serve another important function of preventing seabed mining from becoming a high seas freedom. Throughout the history of the uses of the high seas, the consensus of the international community has been extremely important in assessing the permissibility of new uses. In an oft-quoted passage discussing the evolution of the regime of the high seas, McDougal and Schlei commented:

[The public order of the high seas . . . is a continuous process of interaction in which the decision-makers of individual nation-states unilaterally put forward claims of the most diverse and conflicting character to the use of the world's seas, and in which other decision makers, external to the demanding nation-state and including both national and international officials, weigh and appraise these competing claims in terms of the interests of the world community, and of the rival claimants, and ultimately accept or reject them.]

Truly novel uses of the seas, to be lawful, thus require the con-

74. See note 89 infra.
sent of the international community, either overtly or through toleration.

It has been argued that the high seas are “open to all nations” and that consent of the international community is not required for their use. Although it is true that no nation now requires consent to navigate or to fish on the high seas, the analysis of McDougal and Schlei leads to the conclusion that these uses are now freedoms because consent to them has long been given. To change these longstanding freedoms would require extremely serious actions by the international community. When a truly novel use arises such as seabed mining, the present consent of nations becomes especially important in determining whether the use is a freedom of the high seas. The vast majority of the international community has emphatically refused to consent to seabed mining as a freedom of the high seas.

C. Summary

The “high seas freedom” argument rests upon a questionable interpretation of two Commentaries prepared by the ILC, Commentaries done with inadequate discussion at a time when no one considered the deep seabed to be of practical significance. Because they were not subsequently endorsed at UNCLOS I, the Commentaries are weak legal authority. The deep seabed was not considered part of the high seas in customary international law. The 1958 United Nations Conference on the Law of the Sea left this question unresolved. The treaties prepared by that Conference do not include the deep seabed in definitions of the high seas in a geographical sense, nor do they list seabed mining as one of the freedoms of the high seas. Despite ample opportunity, few nations committed themselves on the seabed issue.

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79. Burton, supra note 24, at 1160.
80. For example, U.N. General Assembly resolutions like those dealing with seabed mining would not be given as much weight if they challenged a well-accepted freedom such as navigation. See notes 131-45 and accompanying text infra.
81. Uses that are truly novel must be distinguished from uses that, although new, are really subsumed under another activity. An example of the latter would be the commercial harvest of a previously unexploited species of fish. Although a “new” activity, this fishing would clearly be permitted under the generic “freedom of fishing.”
82. See notes 27-36, 41-59 and accompanying text supra.
83. See notes 27-34 and accompanying text supra.
84. See notes 29, 53-55 and accompanying text supra.
Equally significant is the logical problem that arises if one includes seabed mining as a high seas freedom. All the other high seas freedoms are compatible uses, uses that do not diminish the potential for the same use by others. Polymetallic nodules are a finite resource from an economic perspective. The exploitation of the prime mine sites in the near future by the technologically advanced nations will deny developing nations access to this resource at a later time. Polymetallic nodules do not, therefore, fit into the concept Grotius developed, of things that seem "to have been created by nature for common use."  

A review of the treaties on this subject and an analysis of the policies and logic behind the concept of high seas freedoms, therefore, lead to the conclusion that deep seabed mining is not a freedom of the high seas.

III. THE "RES NULLIUS" ARGUMENT

The previous section has examined the claim of the United States and a few developed nations that deep seabed mining is a freedom of the high seas. A few spokespersons for seabed mining interests have argued instead that the seabed is a res nullius, open to exploitation and exclusive claims by the first occupier. One writer, Theodore G. Kronmiller, in a book published by the United States Department of Commerce, has taken a dual approach: the seabed may be either a res nullius or under the regime of the high seas; but in either case, deep seabed mining is presently lawful.

These analyses rely primarily on events predating the rise of international interest in the deep seabed that began in the mid-1960's. The previous section documented that before the mid-1960's the legal status of the deep seabed outside the continental shelf was unsettled. The next section demonstrates that international law provides no substantial basis for considering the deep seabed to be a res nullius.

Before the mid-1960's, few uses had been made of the deep seabed beyond the continental shelf, and few were contemplated.

85. H. Grotius, supra note 62.
86. See notes 89-116 and accompanying text infra.
88. Ambassador Arvid Pardo of Malta is generally credited with triggering this interest by his famous speech to the UN General Assembly in 1967. U.N. Doc. A/6695 (1967).
89. The "continental shelf" was defined by Article 1 of the Convention on the Continental Shelf, supra note 28:
For the purpose of these articles, the term "continental shelf" is used as referring (a) to the seabed and subsoil of the submarine areas adjacent to

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Cables had been laid across the deep seabed since the mid-nineteenth century, but except in coastal areas where they might foul fishing gear, they had spawned no conflicts requiring legal resolution. Some oceanographic research of the deep seabed had occurred; but like cable-laying, these caused no controversies. As a result, writers on international law paid little attention to the deep seabed.

Early writers on the seabed generally did not distinguish between the continental shelf and the deep seabed, although they were usually more concerned with the practical issues that might be posed by the use of the continental shelf. These early writers treated the seabed (including the continental shelf) either as a *res nullius* or as a *res communis*. This disagreement resulted from two conflicting analogies for the seabed. If the seabed is like unclaimed land, it is a *res nullius*; if it is like the high seas, it is a *res communis*. In practical terms, no nation can claim exclusive
rights or sovereignty over a res communis or over the high seas, but a nation can acquire exclusive rights to a res nullius through occupation.

The res nullius theory enjoyed a surge of popularity in the late 1940's and early 1950's, when it was invoked to provide a legal justification for the then-novel national claims to the exclusive right to exploit natural resources, chiefly petroleum, on adjacent continental shelves. These res nullius advocates used as their primary example the longstanding recognition that certain nations had the exclusive right to exploit sedentary fisheries on the seabed contiguous to their territory but outside their territorial limits. These claims included the regulation of pearl fisheries by Ceylon, Australia, Mexico, and Colombia, and the Italian and French regulation of coral in the Mediterranean. All of the sedentary fisheries were located in areas that are now juridically considered continental shelves.

The evolution of the "continental shelf doctrine" makes res nullius obsolete as an explanation for the regulation of sedentary species. In fact, occupation of a res nullius was thoroughly considered and emphatically rejected by the Convention on the Continental Shelf as the basis for national jurisdiction over the
continental shelf. The coastal State has jurisdiction over the continental shelf because it is the “natural prolongation of its land territory.” The coastal State need make no occupation in order to obtain jurisdiction over the continental shelf; such jurisdiction exists “ipso facto and ab initio.” A prior act of occupation by another State cannot defeat the coastal State’s jurisdiction.

Res nullius was politically unacceptable to the drafters of the Convention on the Continental Shelf because it would have permitted the first “occupant” to claim a continental shelf—even if the occupying nation was not adjacent to the shelf. For example, had the United States been the first to drill for oil in the North Sea, under a res nullius theory the United States would arguably have been able to claim exclusive rights to the North Sea oil fields. The rejection of res nullius for the continental shelf is now firmly established in international law.

102. Article 2 of the Convention on the Continental Shelf provides:

1. The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.

2. The rights referred to in paragraph 1 of this article are exclusive in the sense that if the coastal State does not explore the continental shelf or exploit its natural resources, no one may undertake these activities, or make a claim to the continental shelf, without the express consent of the coastal State.

3. The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation. See generally 6 UNCLOS I, Off. Rec., U.N. Doc. A/CONF.13/42 (1958). No nation argued that the continental shelf was a res nullius in the sense that it could be claimed by the first occupier.


104. Id.

105. See note 102 supra. The International Court of Justice has held:

[t]he Court entertains no doubt [that] the most fundamental of all the rules of law relating to the continental shelf, enshrined in Article 2 of the 1958 Geneva Convention, though quite independent of it, [is] that the rights of the coastal State in respect of the area of continental shelf that constitutes a natural prolongation of its land territory into and under the sea exist ipso facto and ab initio, by virtue of its sovereignty over the land, and as an extension of it in an exercise of sovereign rights for the purpose of exploring the seabed and exploiting its natural resources. In short, there is here an inherent right. In order to exercise it, no special legal process has to be gone through, nor have any special legal acts to be performed. Its existence can be declared (and many States have done this) but does not need to be constituted. Furthermore, the right does not depend on it being exercised. To echo the language of the Geneva Convention, it is “exclusive” in the sense that if the coastal State does not choose to explore or exploit the areas of shelf appertaining to it, that is its own affair, but no one else may do so without its express consent.

Because the continental shelf did not become a *res nullius* zone, virtually no authority supports the proposition that the deep seabed should be considered as such a zone. Certainly the sedentary species examples\textsuperscript{106} are weak authority. Upon close examination, the legitimacy of such claims by nations seems to have been based on prescription, rather than on the occupation of a *res nullius*.\textsuperscript{107} In addition, the practice seems far from universal; one could surely find many sedentary and demersal fisheries that were not claimed by a single nation.

Despite the rejection of *res nullius* for the continental shelf, a few writers have nonetheless maintained that the deep seabed regions beyond the shelf are *res nullius*. The most active of these writers, Northcutt Ely\textsuperscript{108} and L.F.E. Goldie,\textsuperscript{109} have at one time or another been retained by companies that hope to mine polymetallic nodules. The *res nullius* status would give these companies significant advantages because they have already explored many of the best mining areas and would be in a good position to claim the best sites.\textsuperscript{110} *Res nullius* status would allow companies to avoid the international mechanism and revenue-sharing obligations of the “common heritage” approach. Most importantly, the occupier of the *res nullius* could claim exclusive rights to a particular area, which is impossible under the regime of the high seas.\textsuperscript{111} In addition to the sedentary species arguments,\textsuperscript{112} Ely and Goldie support their *res nullius* theory with a few examples of claims to exclusive rights to previously unclaimed land, abandoned property or mineral deposits.\textsuperscript{113} These analogies are unconvincing because the writers assume their conclusion; they start from the perspective that the seabed is like unclaimed land, which is the assumption that divided commentators into the *res nullius* and *res communis* camps. Even acceptance of the analogy to land does not decide the issue, because all unclaimed land has not automatically been treated as *terra nullius* in international

\textsuperscript{106} See note 99 and accompanying text *supra*.

\textsuperscript{107} Hurst, *supra* note 92.

\textsuperscript{108} See Ely, *supra* note 24; Deepsea Brief, *supra* note 34, at 158.


\textsuperscript{110} See, for example, the discussion of Deepsea Ventures “claim” to 60,000 square kilometers of the floor of the Pacific Ocean in text at note 71 *supra*.

\textsuperscript{111} See notes 214-36 and accompanying text *infra*.

\textsuperscript{112} Ely argues that the sedentary species claims are relevant to the deep seabed because at the time they were made and recognized, no juridical difference existed between the continental shelf and the deep seabed. Deepsea Brief, *supra* note 34, at 169.

law, subject to the exclusive possession of the first occupier. For example, the United States and the Soviet Union have steadfastly refused to recognize claims of sovereignty to parts of Antarctica, and the international community was quick to deny the possibility of claims to national sovereignty to outer space or celestial boundaries.

The analogies of Ely and Goldie do not, in any event, make law. Nations cannot be required to accept that principles used to establish jurisdiction over unclaimed land must apply to the deep seabed, absent some prior practice or treaty that the seabed is subject to the same rules as unclaimed land. Since 1967, the international community, including the United States, has emphatically rejected the proposition that the deep seabed is a res nullius.

IV. THE ARGUMENT THAT "WHAT IS NOT PROHIBITED, IS PERMITTED"

Some advocates for the mining consortia have offered, as a separate and distinct argument, the theory that seabed mining is permitted because no international law principle specifically prohibits it. This theory differs from the argument that new uses of the high seas do not require consent in that it is broader and more inclusive: no new activities of sovereign nations require consent, absent a prohibitory rule. The principle that "what is not prohibited, is permitted" is one that appears from time to time in international law. Ely and Pietrowski cite the cases of the S.S. Lotus and the Fisheries Case for this proposition. In the Lotus case, the Permanent Court of International Justice held by a divided vote that the Turkish government could exercise criminal jurisdiction over the officer of a French ship which collided with a Turkish ship in international waters because such jurisdic-

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116. See notes 129-58 and accompanying text infra.
117. Deepsea Brief, supra note 34, at 1160.
118. The distinction is best shown in that the "absence of a prohibitory rule" argument need not assert that seabed mining is a high seas freedom.
tion, although not expressly allowed by international law, was also not forbidden by international law. In the *Fisheries Case*, the International Court of Justice held that although Norway’s claim to draw straight baselines connecting the outer limits of its indented coast was unusual, no rule of international law prohibited it.

Both cases are now accepted as good law, not because international law permits whatever is not specifically prohibited, but rather because the result in each case makes sense on its facts. Turkey’s assertion of jurisdiction in *Lotus* was reasonable because the French officer’s negligence caused damage to a Turkish ship, which is akin to Turkish territory; the assertion of jurisdiction thus fits into the principle that jurisdiction can be exercised over “conduct outside the territory causing effect within.” The court’s decision in the *Fisheries Case* was a reasonable solution to the unusual coastline involved in that case, and the result has been approved and codified in the Convention on the Territorial Sea and Contiguous Zone123 and in the Draft Convention of UN-CLOS III.124

The theory that nations are free to do as they please, absent some prohibitory rule, is inimical to the settlement of international disputes by law. “The moment the ultimate foundation of State rights is found in State sovereignty, law suffers because the rights in question tend to cancel out . . . .”125 Assertions of rights by one nation of necessity often deny rights asserted by other nations. To place the burden of proof on one party to find a rule that prohibited the conduct of another would reduce much of international law to procedural jockeying between the parties to become plaintiff or defendant, whichever would avoid having the burden of proof.126 As a practical matter, when asserted rights are in conflict and if the parties wish to resolve the conflict by legal procedures, the parties must drop the claim that they have a pre-existing right to their positions, absent a prohibitory rule, and allow the dispute to be settled by the relevant rules of international

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121. The judges were evenly split on the decision; the presiding judge cast a second vote, deciding the case.


124. Draft Convention, *supra* note 6, art. 7.


126. *Id.*
law. As Judge Alvarez commented in a concurring opinion in the
Fisheries Case:

It is also necessary to pay special attention to another principle which has
been much spoken of: the right of States to do everything which is not
expressly forbidden by international law. This principle, though formerly
correct, in the days of absolute national sovereignty, is no longer so at the
present day . . . 127

The use of the “absence of a prohibitory rule” theory assumes,
of course, that rules of international law do not presently regulate
seabed mining. The next section of this article will discuss the
evolution of international attitudes regarding the deep seabed
from the mid-1960’s to the present to see if any of the attitudes
that have developed have risen to the level of legal obligations. In
looking at these developments, it is important to recognize the
primitive state of the law relevant to seabed mining as of the mid-
1960’s. Many of the commentators arguing for the freedom of sea-
bed mining speak of the events from the mid-1960’s to the present
as efforts to change existing law. 128 The effort of this article up to
this point has been to show that the law of the seabed prior to the
mid-1960’s was ambiguous and sparse. The events since the mid-
1960’s cannot be seen as attempts to change existing law, but as
ttempts to create law in a vacuum.

V. THE MAKING OF INTERNATIONAL OBLIGATIONS, 1967-81

A. The Emergence of an International Consensus

Ambassador Arvid Pardo’s famous address to the United Na-
tions General Assembly in 1967 129 triggered international concern
over the legal status of the deep seabed. Pardo’s speech and the
publication of “The Mineral Resources of the Sea” 130 by John
Mero, describing vast seabed resources as perhaps easily ex-
loited, made the deep seabed an important issue in international
law. While the issue of the deep seabed could be ignored in 1958,
by the late 1960’s it had to be directly confronted.

Within three years of Pardo’s initiative, the international com-
"munity had reached broad agreement, at least on a policy level,
on several important principles concerning the seabed. The

128. See, e.g., KRONMIIER, supra note 24, at 207-345; Deepsea Brief, supra note
34 at 210.
agreements were symbolized by the “common heritage of mankind” language that came to be employed whenever the seabed was discussed. Considerable disagreement still exists over both the exact meaning of these principles concerning the seabed and the legal authority of the documents in which these principles are expressed. Nevertheless, the international community had achieved an area of shared policy objectives regarding the deep seabed by the early 1970's.

In 1969, the United Nations General Assembly passed the Moratorium Resolution, by a vote of 62 to 28, with 28 abstentions, declaring that States and corporations are “bound to refrain” from seabed mining until an international regime can be established to govern this activity. The following year, the members of the General Assembly worked hard to hammer out a document that could achieve a broader consensus. The result was an ambiguous document, a negotiated compromise carefully worded to achieve the broadest possible consensus, called the “Declaration of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction” (Declaration of Principles). It was passed unanimously, by a vote of 108-0, with only 14 nations from Eastern Europe including the Soviet

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- **In favour:** Afghanistan, Algeria, Argentina, Barbados, Bolivia, Brazil, Burundi, Central African Republic, Ceylon, Chad, Chile, Colombia, Congo (Brazzaville), Congo (Democratic Republic), Costa Rica, Cyprus, Dahomey, Dominican Republic, Ecuador, Ethiopia, Finland, Guatemala, Guinea, Guyana, Haiti, Honduras, India, Iraq, Jamaica, Jordan, Kenya, Kuwait, Lesotho, Malaysia, Maldives, Mali, Mauritania, Mauritius, Mexico, Morocco, Nepal, Nicaragua, Niger, Pakistan, Panama, Paraguay, Peru, Rwanda, Singapore, Somalia, Southern Yemen, Sweden, Thailand, Trinidad and Tobago, Tunisia, Uganda, United Republic of Tanzania, Uruguay, Venezuela, Yemen, Yugoslavia, Zambia.

- **Against:** Australia, Austria, Belgium, Bulgaria, Byelorussian Soviet Socialist Republic, Canada, Czechoslovakia, Denmark, France, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Malta, Mongolia, Netherlands, New Zealand, Norway, Poland, Portugal, South Africa, Ukrainian Soviet Socialist Republic, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United States of America.

- **Abstaining:** Burma, China, Cuba, El Salvador, Greece, Indonesia, Iran, Israel, Ivory Coast, Laos, Lebanon, Liberia, Libya, Madagascar, Malawi, Nigeria, Philippines, Romania, Saudi Arabia, Sierra Leone, Spain, Sudan, Swaziland, Syria, Togo, Turkey, United Arab Republic, Upper Volta.

- **Absent:** Albania, Botswana, Cambodia, Cameroon, Equitorial Guinea, Gabon, Gambia, Senegal.


**The General Assembly,**

Recalling its resolutions 2340 (XXII) of 18 December 1967, 2467 (XXIII) of 21 December 1968 and 2574 (XXIV) of 15 December 1969, concerning the area to which the title of the item refers,

**Affirming** that there is an area of the seabed and the ocean floor, and
Union abstaining. Since the mid-1970's, the Soviet Union and the

the subsoil thereof, beyond the limits of national jurisdiction, the precise
limits of which are yet to be determined,

Recognizing that the existing legal regime of the high seas does not pro-
vide substantive rules for regulating the exploration of the aforesaid area
and the exploitation of its resources,

Convinced that the area shall be reserved exclusively for peaceful pur-
poses and that the exploration of the area and the exploitation of its re-
sources shall be carried out for the benefit of mankind as a whole,

Believing it essential that an international regime applying to the area
and its resources and including appropriate international machinery
should be established as soon as possible,

Bearing in mind that the development and use of the area and its re-
sources shall be undertaken in such a manner as to foster the healthy de-
velopment of the world economy and balanced growth of international
trade, and to minimize any adverse economic effects caused by the fluctu-
ation of prices of raw materials resulting from such activities.

Solemnly declares that:

1. The sea-bed and ocean floor, and the subsoil thereof, beyond the lim-
lits of national jurisdiction (hereinafter referred to as the area), as well as
the resources of the area, are the common heritage of mankind.

2. The area shall not be subject to appropriation by any means by
States or persons, natural or juridical, and no State shall claim or exercise
sovereignty or sovereign rights over any part thereof.

3. No State or person, natural or juridical, shall claim, exercise or ac-
quire rights with respect to the area or its resources incompatible with the
international regime to be established and the principles of this Declara-
tion.

4. All activities regarding the exploration and exploitation of the re-
sources of the area and other related activities shall be governed
by the
international regime to be established.

5. The area shall be open to use exclusively for peaceful purposes by
all States, whether coastal or land-locked, without discrimination, in ac-
cordance with the international regime to be established.

6. States shall act in the area in accordance with the applicable princi-
pies and rules of international law, including the Charter of the United
Nations and the Declaration on Principles of International Law concern-
ing Friendly Relations and Co-operation among States in accordance with the
Charter of the United Nations, adopted by the General Assembly on 24
October 1970, in the interests of maintaining international peace and se-
curity and promoting international co-operation and mutual under-
standing.

7. The exploration of the area and the exploitation of its resources
shall be carried out for the benefit of mankind as a whole, irrespective of
the geographical location of States, whether land-locked or coastal, and
taking into particular consideration the interests and needs of the devel-
oping countries.

8. The area shall be reserved exclusively for peaceful purposes, with-
out prejudice to any measures which have been undertaken or may be
agreed upon in the context of international negotiations undertaken in the
field of disarmament and which may be applicable to a broader area. One
or more international agreements shall be concluded as soon as possible
in order to implement effectively this principle and to constitute a step to-
wards the exclusion of the sea-bed, the ocean floor, and the subsoil
thereof from the arms race.

9. On the basis of the principles of this Declaration, an international
other Eastern European nations have come to endorse the developing nations' interpretation of the Declaration of Principles.\textsuperscript{133}

The Declaration of Principles is not the sole authority for the argument that legal principles developed since 1967 now regulate the seabed, but it is an important piece of evidence. Because of its importance, it is necessary to comment upon the legal effect of United Nations resolutions in general before discussing the content of the Declaration of Principles and whether any of the principles therein now are law.

The United Nations General Assembly lacks formal legislative competence.\textsuperscript{134} Nevertheless, resolutions of the General Assembly have significance for the formation of international law in three distinct ways. First, resolutions may serve as convenient formulations of customary international law. Given the highly decentralized formation of customary law, resolutions that formalize and express existing law can be tremendously useful. In this sense, the resolutions do not add to the content of existing law; they merely give it new expression.\textsuperscript{135}

Second, General Assembly resolutions, particularly those labeled "declarations"\textsuperscript{136} may be considered to import, on behalf of the organ adopting it, a strong expectation that Members of the international community will abide by it. Consequently, insofar as the expectation is gradually justified by State practice, a declaration may by custom become recognized as laying down rules binding upon States.\textsuperscript{137}

Resolutions may thus contribute to the development of new law regime applying to the area and its resources and including appropriate international machinery to give effect to its provisions shall be established by an international treaty of a universal character, generally agreed upon. The regime shall, \textit{inter alia}, provide for the orderly and safe development and rational management of the area and its resources and for expanding opportunities in the use thereof and ensure the equitable sharing by States in the benefits derived therefrom, taking into particular consideration the interests and needs of the developing countries, whether land-locked or coastal.

[Paragraphs 10-15 have been omitted, they are not relevant to the present discussion.]

\textsuperscript{133.} See note 20 supra.

\textsuperscript{134.} See U.N. CHARTER, arts. 10-17. A proposal to give the General Assembly the power to make generally binding law was rejected at the San Francisco Conference on International Organization; only one nation voted in favor of the proposal. 13 U.N.C.I.O. Doc. 754 (1945).


\textsuperscript{136.} No formal difference exists between a "declaration" and a "resolution" of the U.N. General Assembly, but in practical terms, a declaration may have more political and moral force because of its "greater solemnity and significance." UN Doc. E/CN. 4/L.610 (1962) (memorandum of the Office of Legal Affairs of the Secretary-General to the General Assembly.)

\textsuperscript{137.} \textit{Id.}
by influencing the moral and political climate in which nations operate.

Third, a General Assembly resolution may itself be an element in the practice of nations which leads to the establishment of law. The most important question, especially with respect to novel activities such as seabed mining, is the extent to which the process of enacting a resolution may establish law when little other relevant State practice exists.

In arguing against giving much weight to United Nations resolutions, it is sometimes stated that nations “don’t mean what they say” in the United Nations; they do not regard their votes or statements in the General Assembly as law-making, and hence, cannot be bound as if they were. Nations often paper over real differences by voting for ambiguous resolutions merely to avoid politically embarrassing confrontations. (Similar compromises also occur, of course, in domestic legislatures, where legislators frequently vote for bills that they are not completely satisfied with in order to further party goals.) The way to meet these objections, without capitulating to the cynicism they express, requires examining resolutions individually to find what meanings enjoy genuine consensus and what perceptions of the legal effects can fairly be attributed to the nations involved.

To conclude that, in some circumstances, the votes of nations at the United Nations General Assembly may create international law is consistent with the purpose of recognizing custom as a source of law. “Uniformity of conduct and the process of ‘reciprocal claims and mutual tolerances’ often create expectations of continuation of the same kinds of conduct. States and interested entities, including private persons, develop their policies and plan their actions on the basis of such expectations...” Accordingly, Lissitzyn concludes: “If such statements or declarations emanate from a large number of States and purport to deal with a legal matter, they may be regarded in some circumstances as indications of a general consensus amounting to a norm of general international law.”

The use of outer space is a good example of nations claiming le-

139. Id. at 302, 308-09.
141. Id. at 35-36.
gal significance for General Assembly resolutions purporting to regulate novel activities for which little state practice exists. In 1963, for instance, the United States representative said: "When a General Assembly resolution proclaimed principles of international law—as resolution 1721 (XV) had done—and was adopted unanimously, it represented the law as generally accepted in the international community."

A recent arbitral award may indicate a trend in the use of United Nations General Assembly resolutions in international adjudications. The arbitrator held that certain provisions of the 1962 "Resolution on Permanent Sovereignty Over Natural Resources" were binding international law because (1) the Resolution had been supported by members of all of the geographical groups and economic systems, and (2) nations expressed "universal recognition" of the principles involved at the time of voting.

Applying these criteria to the 1970 Declaration of Principles seems to lead to the conclusion that it should be viewed as evidence of emerging customary law. This conclusion seems particularly logical as applied to the vote of the United States because our leaders were speaking and acting during this period in support of the goals of the Declaration of Principles.

For instance, in the first major policy statement regarding the deep seabed, in 1966, President Lyndon B. Johnson said:

["U"]nder no circumstances, we believe, must we ever allow the prospects of rich harvest and mineral wealth to create a new form of colonial competition among the maritime nations. We must be careful to avoid a race to grab and to hold the lands under the high seas. We must ensure that the deep seas and the ocean bottoms, are, and remain, the legacy of all human

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145. 17 INT'L LEGAL MATERIALS 1, 27 (1978). In the course of his opinion, the Arbitrator, Rene-Jean Dupuy (Secretary General of the Hague Academy of International Law and Professor of Law at the University of Nice), stated:

[I]t is impossible to deny that the United Nations' activities have had a significant influence on the content of contemporary international law. In appraising the legal validity of the above-mentioned Resolutions, this Tribunal will take account of the criteria usually taken into consideration, i.e., the examination of voting conditions and the analysis of the provisions concerned.

Id. at 28.

Using these same criteria, the Arbitrator concluded that the Charter of Economic Rights and Duties of States, G.A. Res. 3281 (XXIX), U.N. GAOR (Supp. 31) 50
Then, in 1970, President Richard M. Nixon announced a new oceans policy that included the renunciation of all sovereign rights to the seabed and its resources and the establishment of international machinery to administer the licensing of exploration and exploitation of the resources of the seabed. Among the “Basic Principles” announced by President Nixon to govern the seabed were the following three:

The International Seabed Area would be the common heritage of mankind and no state could exercise sovereignty or sovereign rights over this area or its resources or, except as provided in the convention, acquire any right or interest therein.

The International Seabed Area would be open to use by all states without discrimination, except as otherwise provided in the convention, and would be reserved exclusively for peaceful purposes.

Provision would be made for the collection of revenues from mineral production in the Area to be used for international community purposes including economic advancement of developing countries and for promotion of the safe, efficient and economic exploitation of the mineral resources of the seabed (emphasis added).

President Nixon, followed by President Gerald Ford and President Jimmy Carter, entered into active negotiations at the United Nations preparatory meetings and at UNCLOS III to develop a treaty that would create an international regime to govern seabed mining consistent with the Declaration of Principles. At no time did our negotiators express any reservations about these Principles. Many of the most significant initiatives came from the United States, including in particular: the Kissinger compromise of 1976, proposing the parallel system of exploitation coupled with indications that the developed world would finance the Enterprise and provide the technology for its operations; and the many refinements negotiated by Elliot Richardson in 1979 and 1980 to

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146. Address by President Lyndon Johnson at Commissioning of Ship Oceanographer, July 13, 1966 (cited in E. Wenk, The Politics of the Ocean 258 (1972)).


148. Id. at 180 (emphasis added).

make the governing bodies of the International Seabed Authority more acceptable to the United States.150

The Deep Seabed Hard Minerals Resources Act of 1980151 specifically acknowledges the commitment of the United States to the 1970 Declaration of Principles. Sections 2(a) (3) and (4) of the 1980 Act state:

(3) [O]n December 17, 1970, the United States supported (by affirmative vote) the United Nations General Assembly Resolution 2749 (XXV) de-

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The extreme nature of the current “reassessment” being undertaken by the Reagan administration can be demonstrated by comparing the “concerns” identified by Ambassador Malone, supra note 10, with earlier American statements and with earlier declarations supported by the United States. In nearly all cases, the “concerns” involve issues long agreed upon in principle, only the implementation needed to be negotiated.

A. Compare “The Draft Convention places under burdensome international regulation the development of all of the resources of the seabed and subsoil beyond the limits of national jurisdiction . . . .” Malone, supra note 10, at 4, with id. All activities regarding the exploration and exploitation of the resources of the area and other related activities shall be governed by the international regime to be established . . . . [A]n international regime applying to the area and its resources and including appropriate international machinery to give effect to its provisions shall be established by an international treaty . . . .” 1970 Declaration of Principles, supra note 132.

B. Compare “The Draft Convention would establish a supranational mining company, called the Enterprise . . . . the Draft Convention requires the U.S. and other nations to fund the initial capitalization of the Enterprise . . . . The Enterprise, through mandatory transfer, is guaranteed access on request to seabed mining technology owned by private companies . . . .,” Malone, supra note 10, at 5, with [T]he United States would be prepared to agree to a means of financing the Enterprise in such a manner that the Enterprise could begin its mining operation either concurrently with the mining of State or private enter-

prises or within an agreed timespan that was practically concurrent . . . . [T]his would include agreed provisions for the transfer of technology so that the existing advantage of certain industrial states would be equal-

ized over a period of time.

Secretary of State Henry Kissinger, 75 DEPT. STATE BULL. 395, 398 (remarks of Kissinger at reception for heads of delegations to UNCLOS III, Sept. 1, 1976).


D. Compare “The Draft Convention imposes revenue-sharing obligations on seabed mining corporations which would significantly increase the cost of seabed mining, Malone, supra note 10, at 7, with “The regime should provide for the collection of substantial mineral royalties to be used for international community purposes . . . .” President Nixon, United States Policy for the Seabed, May 1970, cited in E. WENK, supra note 146, at 485-86, and “[T]he treaty's financial provisions are not worse than most other tax systems.” Elliot Richardson, DEPT. STATE, BUREAU OF PUB. AFF., Current Policy No. 233, Seabed Mining and the Law of the Sea 3 (address by Elliot Richardson, Sept. 9, 1980).
claring inter alia the principle that the mineral resources of the deep seabed are the common heritage of mankind, with the expectation that this principle would be legally defined under the terms of a comprehensive International Law of the Sea Treaty yet to be agreed upon;

(4) [I]t is in the national interest of the United States and other nations to encourage a widely acceptable Law of the Sea Treaty, which will provide a new legal order for the oceans covering a broad range of ocean interests, including exploration for and commercial recovery of hard mineral resources of the deep seabed.152

Although the United States and other nations universally have endorsed the principle that the deep seabed beyond national jurisdiction is “the common heritage of mankind,”153 it is often argued that the “common heritage” principle lacks enough specificity to import legal obligations.154 It is true that the words “common heritage” and their accompanying concept are not sufficiently detailed to create a seabed regime. The regime must be more fully defined by the current negotiations. But the principle of the “common heritage” does limit the kinds of actions that are currently permissible in the deep seabed.

Nations have agreed in the Declaration of Principles that the deep seabed is presently the common heritage of humankind.155 Although a comprehensive law of the sea treaty is necessary to implement the principle, a new treaty is not necessary to confirm the present status of the deep seabed as the common heritage. Nations have some freedom to negotiate what the common heritage means and its legal significance, but they cannot deny that the seabed is the common heritage of humankind. Nations have also agreed that they must implement the principle of the common heritage during the current United Nations Conference on the Law of the Sea. It was an explicit purpose of the Declaration of Principles to serve as the basis for negotiating the future seabed regime.156

The analysis in this section157 presents the justifications for giving legal significance to aspects of the Declaration of Principles and the seabed’s “common heritage.” The Declaration was universally endorsed at the time of its adoption. The best approach to giving definite content to the “common heritage of mankind”

152. Id.
153. See notes 132, 148, & 152 and accompanying text supra.
154. Murphy, supra note 32, at 540; T. Kronmiller, supra note 24, at 339-40.
155. Declaration of Principles, supra note 132.
156. Id. operative paragraph 9; see note 158 and accompanying text infra.
157. See notes 134-45 and accompanying text supra.
was proposed by the United States Representative John Steven-
son when he explained the vote of the United States in favor of
the Declaration of Principles: the meaning of the “common heri-
tage” “is indicated by the principles which follow” it in the Decla-
ration “and will be elaborated in the internationally agreed
regime to be established.”

With this procedure in mind, several principles which follow
the “common heritage” concept in the Declaration of Principles
can now be further discussed. These principles regarding the sea-
based have been established as law by virtue of their universal rec-
ognition by all major nations in the Declaration of Principles and
by other actions of nations in the last fifteen years. The three ba-
sic principles discussed below do not exhaust the legal obliga-
tions that flow from the events of the last fifteen years, but they
have been selected because they are especially relevant to the
current United States reappraisal of the law of the sea negotia-
tions. The principles are as follows: (1) the “common heritage”
concept requires that developing nations share genuine benefits
from seabed exploitation; (2) a “generally accepted” law of the
sea treaty can establish a seabed regime binding even on nonpar-
ties to the treaty; and (3) even if no treaty is signed, claims of ex-
cclusive rights to seabed resources will be prohibited.

B. Developing Countries Must Enjoy Genuine Benefits from
Seabed Exploitation

The seventh operative paragraph of the 1970 Declaration of
Principles provides:

7. The exploration of the area and the exploitation of its resources shall
be carried out for the benefit of mankind as a whole, irrespective of the
dependent location of States, whether land-locked or coastal, and taking
into particular consideration the interests and needs of the developing
countries.

The ninth operative paragraph, which outlines the basic condi-
tions of the international regime to be negotiated for the seabed,
repeats this obligation:

The regime shall, inter alia, provide for the orderly and safe development
and rational management of the area and its resources and for expanding
opportunities in the use thereof and ensure the equitable sharing by
States in the benefits derived therefrom, taking into particular considera-
tion the interests and needs of the developing countries, whether land-
locked or coastal.

The United States interpreted paragraph 7 to mean: “that no

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tive John Stevenson).
159. See note 132 supra (emphasis added).
160. Id. (emphasis added).
State or group of States, be they landlocked or coastal, developed or developing, may receive all of the benefits from the area or any part of it. More than any other principle, it is this one which elevates the interests of the international community above all others. . . ."161 The members of the United Nations clearly agreed in the Declaration of Principles that all nations, especially the developing countries, should share in the benefits of seabed exploitation and that the future international regime governing the seabed is required to take positive steps to ensure this equitable sharing.162

Economic analysis gives a more specific meaning to the provisions of the Declaration of Principles. Seabed mining, if successful, will increase supplies and decrease prices of the metals to be extracted from the seabed, thus helping consumers of these metals. But competition from seabed mining will hurt terrestrial producers of the metals in two ways: by lowering prices of the metals derived from mines, and by redirecting investments that would otherwise be made to expand production from terrestrial mines.

The magnitude of these effects is highly speculative, depending upon a host of factors. One common conclusion can be drawn from the studies that have considered the effects upon developing countries: seabed mining, restrained only by market forces, would cost developing country producers of the metals more than it would benefit developing country consumers.163 The underly-

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162. See operative paragraph 9 of the Declaration of Principles, supra note 132.
163. The economic effect of seabed mining depends first upon the size that the industry will reach. Even a small seabed mining industry would supply significant amounts of cobalt, and it is generally conceded that seabed production will depress the price of cobalt. Zaire is currently the major producer of cobalt. Should manganese be extracted, seabed production will quickly play a major role in world manganese markets as well. The following table shows the proportion of the current world demand for each metal that would be supplied by a single “typical” 3-million ton/year nodule operation producing nickel, copper, manganese, and cobalt:

<table>
<thead>
<tr>
<th>Metal</th>
<th>Proportion of World Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td>4.9%</td>
</tr>
<tr>
<td>Copper</td>
<td>0.44%</td>
</tr>
<tr>
<td>Manganese</td>
<td>7.9%</td>
</tr>
<tr>
<td>Cobalt</td>
<td>16.2%</td>
</tr>
</tbody>
</table>

Projections of the economic effect of seabed mining on developing countries support the conclusion reached in the text that seabed mining, restrained only by market forces, would hurt developing countries more than it would benefit them, but they differ on the magnitude of the effects. I. Bulkley, Who Gains For Deep
ing reason is simple: the developing countries produce far more of the metals involved than they consume, and they are likely to continue doing so for a long time. Nickel and cobalt, especially, are high-technology materials, little used by developing countries. In addition, most expansion in nickel production on land is likely to occur in developing countries.

These general economic realities of seabed mining should have been clear to all concerned since the late 1960's. The developed countries, through the 1970 Declaration of Principles and other resolutions, accepted responsibility for trying to mitigate the predicted adverse effects upon developing countries. For example, a companion resolution to the Declaration of Principles, which was also adopted unanimously, contains this provision:

*Reaffirming* that the development of the area and its resources shall be undertaken in such a manner as to foster the healthy development of the world economy and balanced growth of international trade, and to minimize any adverse economic effects caused by the fluctuation of prices of raw materials resulting from such activities... (emphasis added).

The Declaration of Principles does not require any specific method for reducing these adverse effects. The United States took particular care to insist that the Declaration of Principles did not prejudice the question of production controls to be subsequently negotiated in the treaty. Some action is, however, necessary to ensure the sharing of benefits.

The United States has consistently agreed to share revenues

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OCEAN MINING 61 (1979): "If no new regime to govern ocean mining is negotiated, the simulation shows that not only will the [more developed countries] capture the whole of the 'common heritage,' but will in addition secure a redistribution of world income toward themselves." This economic simulation showed that in an unregulated free-access regime, the developing countries suffered a net loss of income. Accord, Economic Implications of Sea-Bed Mining in the International Area: Report of the Secretary-General, U.N. Doc. A/CONF.62/37 at 1128 (1975). One study, Johnston, The Economics of the Common Heritage of Mankind, 13 Marine Techn. Soc'y J. 6:28, 29 (1979), shows gains to developing-country consumers from seabed mining exceeding losses to developing-country producers by the year 2010, but it uses the untenable assumption that the tonnage of nickel produced by developing countries will not increase, and their share of the world's nickel supply will decrease from 13% in 1980 to 4% in 2010. In fact, most new capital investment in nickel production is being made in developing countries, Mining Investment 1980, 181 ENGINEERING MINING J. 75, 85-86 (1980), and about 37% of the world's identified reserves are in developing countries (even if one includes the extensive reserves in French-held New Caledonia among the developed country reserves). N. MATTHEWS, NICKEL 6 (1979).

164. N. MATTHEWS, supra note 163, at 4-6.

165. See note 163 supra.


from the seabed with the international community. Although these offers by the United States to share revenues from deep seabed mining have not expressly acknowledged that such sharing is required by international law, the context of the remarks strongly suggests that conclusion. For example, in his major policy statement on the seabed beyond national jurisdiction in 1970, President Nixon said that the future law of the sea treaty should “establish an international regime for the exploitation of seabed resources beyond this limit [200 meters]. The regime should provide for the collection of substantial mineral royalties to be used for international community purposes. . . .” The use of the term “royalties,” which is a term “historically derived from the right of a sovereign or other proprietor to compensation for the taking of minerals that he owns,” indicates that the international community has some property rights to the deep seabed and that the sharing of revenues from the deep seabed is not merely an act of generosity by the exploiting nation.

The 1980 Deep Seabed Hard Mineral Resources Act includes a revenue-sharing fund, created by imposing a special tax on seabed miners of 0.75% of the processed value of the metals. Should a law of the sea treaty be ratified by the United States, the money in the trust fund will be available to cover contributions required by the treaty. If no treaty takes effect with respect to the United States by June 1990, “amounts in the Trust Fund shall be available for such purposes as Congress may hereafter provide by law.”

It is unlikely that developing countries will be impressed by the trust fund contained in the Act. The United States negotiating team has previously proposed during the UNCLOS III negotiations that a royalty of 2-4% of the value of the processed metals be imposed on seabed miners, and the latest negotiating text im-

168. See, e.g., Deep Seabed Act, supra note 18, subchapter F; Statement by President Nixon, supra note 150; note 150 and accompanying text supra.
171. See notes 18 and 21 supra.
173. Id. § 403.
174. Id. § 403(2)(e).
poses a royalty of 5-12%. The difference between the royalties proposed at the Conference and the 0.75% in the United States Deep Seabed Act could be considerable. For a typical project, 0.75% of the gross revenues would amount to about $1.9 million; the 2-4% proposed by United States negotiators would generate $5.2 to $10.3 million; and the 5-12% of the Draft Convention would generate $12.9 to $31 million.

Many members of Congress, including Senators McClure, Byrd, Stevens, and Long, and Representatives Murphy and Breaux, have bitterly attacked the various drafts for a law of the sea treaty for being too imbalanced in favor of the developing countries with respect to the seabed provisions. These congressional critics ignore the problem that because the seabed has been agreed to be a shared resource, a seabed mining regime must contain major safeguards and advantages to the developing countries.

The inherent economics of the situation assure that a free-access, "freedom of the seas" regime will benefit only those developed countries which have the technology to mine the seabed and which consume large amounts of the metals found therein and will hurt the developing countries which rely on mineral exports. That the future regime of the seabed cannot permit this situation was conceded long ago by the United States: "no group of States . . . may receive all of the benefits from the area. . . ." Revenue sharing, production controls, commodity agreements, and technology transfer are all potential methods to achieve the goals required by the "common heritage" principle.

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175. Two systems of payments are contained in the draft treaty. Each is designed to produce the same amount of revenue from a moderately successful seabed mining project, like the "baseline" case in MIT MODEL, supra note 69. The straight royalty system imposes payments of 5% of the value of the processed metals for ten years, increasing to 12% of the value after ten years. The other system combines royalty payments with a share of the net income of the miner.

The French statute requires French mining companies to contribute 3.75 percent of the value of the minerals they extract to developing countries. N.Y. Times, Sept. 17, 1981, at A5, col. 5.

176. The calculations of royalty payments are based on the MIT "baseline" model, which has revenues of $258 million per year. Because the prices of the relevant metals have increased about 50% since the MIT study was done in 1976, the royalties would probably be higher. MIT MODEL, supra note 69.

177. See, e.g., 125 CONG. REC. S18510-64 (daily ed. Dec. 14, 1979); Murphy, supra note 32.

178. See notes 163-65 and accompanying text supra.

179. See note 161 and accompanying text supra.

180. Among the provisions of earlier drafts of the Draft Convention most severely criticized by private seabed mining interests have been those designed to favor the interests of developing countries, including mandatory technology transfer to the Enterprise, production controls limiting seabed production to a specified portion of the growth in the world's nickel market, and the potential for commodity agreements to stabilize the price of metals derived from the seabed.
C. A "Generally Accepted" Law of the Sea Treaty Will Bind Nonparties

Burton has argued that even if a comprehensive law of the sea treaty governing seabed mining is adopted, nations that are not parties to the treaty will be free to mine the seabed.181 Nordquist has suggested that nonparties might offer themselves as "flags of convenience" to seabed miners who wish to escape the provisions of the treaty.182 It is certainly possible that the United States may refuse to become a party to a treaty that is accepted by most of the rest of the world.183 It is also possible that even if the United States and most of the world’s nations conclude a comprehensive treaty governing seabed mining, some nation capable of developing a seabed mining operation will not become a party. How would a claim fare by the United States or some other non-ratifying country of a right to mine the seabed independently of a treaty regime?

For a nonparty country to hold that it has a right to mine the seabed, it must either argue that some positive rule of international law, such as the "freedom of the seas,"184 allows it to mine the seabed, or use the argument that what is not prohibited, is permitted.185 Both of these arguments would be further weakened by the establishment of an international regime, accepted by a large number of nations, which purported to govern seabed mining. But the question must eventually turn on the general power of a treaty to make law affecting nonparties.

Although the general rule in international law is that treaties

181. Burton, supra note 24, at 1178 n.180. "There is no precedent that would make a treaty obligation to do business with an international organization binding on states not party to the constituent instrument of the organization. Though political pressures to deal with such an organization may be considerable, it is doubtful that states will see such a legal obligation as anything but an infringement of their sovereignty."
183. The President of the Conference, Tommy Koh, has stated that if the United States does not go ahead with the negotiations after its current policy review, "There is little doubt ... that the developing nations and the East block would finalize their own treaty." Honolulu Advertiser, May 2, 1981, at 13, col. 4. The current negotiating text, supra note 6, forbids nonparties from exploiting the seabed by requiring all who wish to exploit the seabed to obtain permission of the ISA, id. art. 137, and forbidding the ISA from giving permits to miners not sponsored by nations party to the treaty, id. art. 155.
184. See notes 27-39 and 60-81 and accompanying text supra.
185. See notes 117-28 and accompanying text supra.
bind only the countries that ratify them, some treaties have had a universal "constitutive" effect, binding on all nations; the prime example is a treaty "which bring[s] into existence some new international entity, whether a State or not." A Law of the Sea Convention could have a "constitutive" effect in that nonparties could be forced to recognize the international legal personality of the International Seabed Authority established by the treaty. But a further basis must be found in order to require that nonparties abide by the Convention's rules governing seabed mining.

The treaty, once enacted, will purport to forbid deep seabed exploitation by nonparties to the treaty. This claim to universal effect accords with the mandate given the Conference in the Declaration of Principles. The nations participating in the 1970 Declaration of Principles clearly intended that the future treaty should lay out seabed laws binding on all nations. This universal coverage was especially important to the developed nations. The proposed treaty could not guarantee them the exclusive use of mine sites if nonparties were free to operate as they pleased on the seabed.

The Declaration of Principles states, in part: "3. No State or person, natural or juridical, shall claim, exercise or acquire rights with respect to the area or its resources incompatible with the international regime to be established and the principles of this Declaration." This provision must be read in conjunction with the requirement that the future regime "be established by an international treaty of universal character, generally agreed upon. . . ." These provisions are of limited importance prior to the establishment of a treaty, because it is difficult to know what will be "incompatible with the international regime to be established." It is clear, however, that the nations participating in the Declaration of Principles have promised to respect the inter-

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188. See note 183 supra.
189. See note 132 supra.
190. See note 200-36 and accompanying text infra.
191. See note 132 supra.
192. GA Res. 2749 (XXV), operative paragraph 9, supra note 132.
193. The language of paragraph 3 had to be vague in order to achieve consensus. Both the developing nations and the United States were thinking of the interim period prior to the establishment of a treaty foremost in drafting this paragraph. Neither side wanted to prejudice the future regime with claims in the interim. The developing countries believed interim seabed mining to be inconsistent with the future regime, but the United States did not. U.N. Doc. A/CONF.1/P.V. 1799, at 3 (statement of United States representative John Stevenson).
national regime, once it is in place.\textsuperscript{194}

The difficulty that is likely to arise in giving universal effect to the seabed provisions of a treaty is that such a power can be attributed only to a treaty that is, in the terms of the Declaration of Principles, "generally agreed upon."\textsuperscript{195} If some major nations do not agree to the treaty, they will surely assert that it is not generally accepted law. This problem was recognized to some extent in the debates over the Declaration of Principles. United States representative John Stevenson stated that the future seabed regime must not result from "an agreement from a few states in a region, or in one group or another."\textsuperscript{196} The United Kingdom's representative said that the future regime "should command the acceptance of the great majority in order to insure its effectiveness."\textsuperscript{197}

Following the logic of the recent Libyan arbitral award,\textsuperscript{198} if a treaty follows the policies agreed upon in the 1970 Declaration of Principles, and if it enjoys support from each of the major political, economic, and geographical groups, the regime it creates should be held to control the use of the seabed by all nations. It is impossible to specify the degree of disagreement that will prevent the international seabed regime from claiming universal effect. But no single nation, not even one as powerful as the United States, can block the creation of international law.\textsuperscript{199} If the United States stands alone in opposing the treaty and engages in seabed mining outside of a treaty regime that is generally agreed upon, these activities will be held unlawful.

\textsuperscript{194} Even if the Declaration of Principles is not accepted as expressing customary international law, the votes taken by nations in support of it might estop them from denying the application of consequences flowing directly from the Declaration such as, for example, that a seabed regime established by general agreement can control the deep seabed completely. Accord, Higgins, \textit{The Development of International Law by the Political Organs of the U.N.}, in 59\textit{mi} Proc. Am. Soc'y Int'l L. 116, 122 (1965) (estoppel may arise from votes on U.N. General Assembly resolutions).

\textsuperscript{195} Declaration of Principles, operative paragraph 9, \textit{supra} note 132.


\textsuperscript{197} \textit{Id.} at 2 (statement of United Kingdom representative).

\textsuperscript{198} See notes 143-45 and accompanying text \textit{supra}.

D. If UNCLOS III Does Not Produce a "Generally Accepted" Treaty, Nations Cannot Claim the Exclusive Use of Mine Sites

If the negotiations of UNCLOS III do not result in a treaty acceptable to countries with the technology to mine the seabed, some of these countries, including the United States, will almost certainly proceed with seabed mining under domestic legislation. The seabed miners will then want assurances that they will have the exclusive use of a particular mine site.

It will be shown that such exclusive use cannot lawfully be claimed under the legal regime likely to exist after a failure of UNCLOS III. Reciprocating States agreements, suggested as an alternative to the treaty that might give adequate security for seabed miners, have serious potential for creating international conflict. Also, an alternative legal regime for the seabed that would allow exclusive claims is unworkable and contrary to legal authority. Finally, nations may take advantage of the ill-defined limits to national jurisdiction in the ocean to make extensive claims to polymetallic nodule resources “adjacent” to their territory. The practical importance of the “exclusive use” issue and the difficulty of achieving it under a “freedom of the high seas” regime may create a continuing strain on established freedoms of the seas.

Two lines of analysis lead to the conclusion that exclusive claims to mine sites will be unlawful even if UNCLOS III fails. The first is that the “common heritage” principle, as described in the 1970 Declaration of Principles and other associated United Nations General Assembly resolutions, should now be considered a principle of customary international law, which prohibits claims of exclusive jurisdiction. Several unanimous resolutions declare

200. According to at least some members of Congress, the “interim” Deep Sea-bed Act, supra note 18, was a signal of dissatisfaction with UNCLOS III and a warning that the United States could “go it alone.” See, e.g., 125 Cong. Rec. S16510-64 (daily ed. Dec. 14, 1979).

201. Prior to making serious investments in deepsea mining, a potential miner needs to know it will have access to a deposit of sufficient size. See note 70 supra. Mining and processing equipment must be tailored to a particular site, so the miner needs to choose its site before making major outlays for equipment. Flipse, Dubs & Greenwald, supra note 70.

202. See notes 206-36 and accompanying text infra.

203. See notes 237-64 and accompanying text infra.

204. See notes 221-36, 239-244 and accompanying text infra.

205. See notes 254-64 and accompanying text infra.

that national sovereignty cannot be indefinitely extended into the deep seabed and that exclusive rights to areas of the deep seabed may not be claimed.²⁰⁷

Although it might be argued that General Assembly resolutions alone cannot prohibit sovereign claims, the failure of any country to assert that it has such a right operates as an implicit acquiescence to the prohibition. For example, although many developed nations strongly objected to the 1969 Moratorium Resolution,²⁰⁸ the United States and other dissenting nations did not claim that they could establish exclusive rights to any seabed area; they merely asserted a nonexclusive high seas freedom to explore and exploit polymetallic nodules.²⁰⁹ In all of the endless debates concerning the legality of interim seabed mining, including the discussions held at the many sessions of UNCLOS III, no country has ever argued that it has a right to establish exclusive claims. In the words of one long-time observer (who was also a United States representative at the Conference):

Given the sharp disagreements expressed [over the legality of seabed mining prior to a treaty,] it is important to stress what was not contested. No state argued that it could confer a right on its nationals to mine a specific site that would be exclusive ergo omnes. No state argued that it would have the right to stop mining by another state at a mine site without the latter's consent; indeed, the United States expressly affirmed “the exclusive jurisdiction of States over their ships and nationals” as one of the applicable restraints of existing international law. In brief, no state asserted a right to claim a part—even a reasonable part—of the deep seabeds or the resources of the deep seabeds to the exclusion of others pending a treaty, or to the exclusion of a treaty. There was no question of an appropriation.²¹⁰

The 1980 Deep Seabed Hard Minerals Act²¹¹ similarly does not assert that the granting of permission by the United States to explore or exploit designated areas of the seabed or the investment therein or the working of the area by the permittee creates exclusive legal rights. In fact, the Act contains several express disclaimers of sovereignty or exclusive rights. For example, section 3(a)(2) provides: “[The United States] does not thereby assert sovereign or exclusive rights or jurisdiction over, or the ownership

²⁰⁷. See resolutions listed in note 206 supra.
²⁰⁸. See note 131 supra.
²⁰⁹. Saffo, supra note 24, at 512.
²¹¹. See note 18 supra.
of, any areas or resources in the deep seabed.”

The Act forbids United States citizens from interfering with the permittee, but that prohibition is simply an exercise of national jurisdiction over its own citizens. Ample evidence exists in the legislative history of the Act to demonstrate that the disclaimer of sovereignty and exclusive rights was made, not as a matter of political comity or expediency, but out of a sense of legal obligation.

Although the failure of UNCLOS III will arguably rob the “common heritage” principle of some of its effect, another source of law prohibiting exclusive claims will probably be bolstered by the absence of a seabed treaty. The United States and the other nations that proceed with seabed mining will almost certainly do so under the theory that seabed mining is a freedom of the high seas. In their dealings with each other, these nations will probably establish a “reciprocating States” regime that adheres to specified rules governing the regime of the high seas. In time they may establish a custom, hitherto absent, that seabed mining should be treated by all nations as a freedom of the high seas. Under such a regime of the high seas, no nation could claim sovereignty over any part of the high seas. The prohibition would extend to all claims of exclusive rights, even those that fall short of full sovereignty.

It has been suggested that the exclusive use of a mine site can be justified under a regime of the high seas as a “reasonable use”: that “[i]f mining is reasonable, then exclusive access to a site is reasonable.” The argument is that a nation (Nation B) that tried to mine in a site previously claimed by another (Nation A) would have failed to pay a reasonable regard to the interests of the original claimant (Nation A). Under the “reasonable regard” duty, the nation originally claiming the site (Nation A) could not act directly to exclude Nation B; it would have to resort to international diplomacy or adjudication to persuade the other to honor

213. See, e.g., Deep Seabed Mining, H.R. REP. No. 96-411, 96th Cong., 1st Sess. 46 (1979): “No nation has the right to assert sovereignty or any form of sovereign jurisdiction or ownership over any area or in situ resources of the seabed.”
214. See notes 18-19 and accompanying text supra (recent assertions by the United States that deep seabed mining is a freedom of the high seas).
215. See Deep Seabed Act, supra note 18, § 118, especially § 118(a)(4), stating that the reciprocating-states regime must not “unreasonably interfere with the interests of other states in their exercise of the freedoms of the high seas as recognized under general principles of international law” (emphasis added).
216. See notes 27-39, 60-85 and accompanying text supra.
218. Id.
its duty. It would be extraordinary, however, to extend the "reasonable regard" duty, which governs, for example, rules of the road at sea, to hold that Nation B would be unreasonably interfering with Nation A, whose own mining activities might still be proceeding in another part of the claimed site, a hundred miles away.

For Nation A to claim exclusive rights to an entire site, it would have to argue that because it (or its citizens) must have exclusive rights to receive an adequate return on the large sums invested on seabed mining at a particular site, any exploitation of any part of the site by Nation B is an "unreasonable" interference. This argument cannot be accepted, because it could just as easily apply to a particular high seas fishery or to a particular trade route on the high seas. A nation cannot claim exclusive rights to a stock of fish on the high seas simply because it has made major investments in fishing equipment that it cannot recoup without having exclusive use of the fishery. Nor can a country develop a new trading route on the high seas and claim the exclusive right to use such a route because it needs a monopoly to make a profit. Nations do not have a high seas duty to ensure that the operations of others are profitable.

Ely and Goldie have attempted to reconcile exclusive mine sites with a regime of the high seas by using a variant of the old res nullius arguments. They argue that although seabed mining is a freedom of the high seas, the polymetallic nodules are in a state of res nullius and belong to the first one possessing them. The analogy is made to fishing on the high seas: everyone is free to fish; but once captured, the fish belong exclusively to the person who captures them.

The difficulty with this analogy is that seabed miners seek exclusive rights to nodules long before they are captured by the mining device. The res nullius theorists answer that nodules in situ can be "constructively possessed" prior to their actual capture. What kinds of activities are necessary for "constructive

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222. This argument is analyzed in the text at notes 89-116 supra.
223. Goldie (1973), supra note 24, at 797.
224. See note 233-36 and accompanying text infra.
225. Deepsea Brief, supra note 94, at 202 ("occupation" is sometimes used instead of "constructive possession").
possession”? In 1979, Goldie said simply: “In the context of deep ocean mining, the taking of the first nodule from the claimed ore body in an equitably acceptable and determinate area, should be deemed to establish possession over all the nodules within that area.”

In an article written six years earlier, Goldie used this language but also appeared to lay down more stringent requirements:

"It can reasonably be argued that when an ocean bed resource of hard minerals has been developed and is being worked, the developing enterprise establishes, by that activity, a valid claim of right to an area equivalent to a tract on dry land, which provides an equitable return and no more, in terms of technological and economic feasibility, but which is not so extensive as to create a monopoly."

The first difficulty with accepting the concept of “constructive possession” over polymetallic nodules is that most of the cases cited in its support involve jurisdiction over unclaimed territory or resources on land, which is subject to entirely different rules than the high seas. The jurists in those terrestrial cases did not have to reconcile exclusive possession with the longstanding high seas tradition of free access. The few cases cited from ocean law concern struck whales which later escape and are claimed by the harpooning boat and the salvage of wrecks on the bottom of the high seas. Neither example of “constructive possession” would support a claim to an expanse of seabed twice the size of Maryland, for example.

Serious practical problems exist with applying the concept of “constructive possession” to claims to areas of the seabed. The first problem is delimiting the size of the area “constructively possessed.” Any “deposit” of nodules is really a series of discontinuous patches of nodules, perhaps stretching for hundreds of miles and without discrete geological boundaries. A “deposit” cannot practically be confined to a 50,000 square kilometer area; in most cases, the same geological forces have created nodules found over a much wider area. The asserted right to claim “constructive possession” of a “deposit” is really nothing more than a claimed right.

230. Id. at 206.
to draw lines on a map, unlike the wreck and whale cases where
the claimant identified a discrete wreck or a discrete whale.

Criteria for drawing those lines on a map cannot escape being
vague, arbitrary and subject to controversy. Goldie proposed in
1973, for example, that the claimed area should “provide an equi-
table return and no more.”231 But each entity involved in seabed
mining has different financial arrangements; the requirements
that determine what “return” is “equitable” will vary
considerably.232

The potential for international conflict is compounded by the
difficulty of determining when rights vest. If they vest when the
“first nodule”233 is taken by an enterprise planning to engage in
marine mining at some later date, then exclusive rights have al-
ready been established to all economically important nodule de-
posits.234 It would be difficult, if not impossible, to determine who
pulled up the first nodule from a particular area. If, on the other
hand, the area must be “actively worked,”235 how is this term to
be defined? Deepsea Ventures believed that its prospecting pro-
gram entitled it to exclusive rights. If, however, actual commer-
cial operations are required for the rights to vest, the purpose of
exclusive rights would be defeated, because miners seek security
prior to making the major investments needed to begin commer-
cial production.236 Disputes would also arise over when, if ever,
the exclusive rights lapse. For example, what degree of perform-
ance is required to maintain them?

VI. WOULD A “FREEDOM OF THE HIGH SEAS”/“RECIPROCATING
STATES” REGIME BE STABLE, OR WOULD IT LEAD TO
SERIOUS CONFLICTS?

A. A “Reciprocating States” Regime

The practical inadequacies of a regime of the high seas to pro-
vide a sound legal basis for deep seabed mining have long been recognized. Ely has pointed out some of the problems:

While it is natural that we look first to the law of the sea in constructing a regime for the development of the minerals beneath the sea, we are nevertheless dealing here with fixed and firm real estate, not with the trackless ocean. To make real estate valuable it must have ascertainable boundaries and be subject to clear and exclusive rights of occupancy. These are just the reverse of the attributes which make a sea lane valuable for commerce.237

The United States and other potential seabed mining nations are nonetheless now tempted to begin seabed mining under a regime of the high seas and to provide the necessary mine site security through “reciprocating States” agreements. A country can use its flag-State jurisdiction to forbid its own citizens from interfering with a miner which the country has licensed to use a particular site. By mutual agreement, countries can promise to respect each other’s claims and prevent their own citizens from infringing upon the claims of other countries which they have agreed to recognize. Such reciprocating States agreements cannot operate to exclude miners from countries not participating in the agreements; but if the major seabed mining nations are included in the agreements, a miner may feel sufficiently secure to proceed with investments in particular sites.

The 1980 Deep Seabed Hard Minerals Resources Act provides for such agreements in the interim before a law of the sea treaty takes effect.238 The possibility of using reciprocating States agreements as a permanent alternative to a comprehensive multilateral treaty is undoubtedly being given serious consideration by the United States government.

Assessing whether a reciprocating States regime could succeed, should the UNCLOS III negotiations fail, is necessarily a speculative enterprise. But “success” must be carefully defined. Success from the perspective of seabed miners, adequate security to allow them to secure the financing to proceed with their projects, must be differentiated from the national and international interests in avoiding conflicts and avoiding precedents that may lead to undesirable consequences in other parts of the oceans. The following observations should serve as cautions to those who might prefer a reciprocating States regime to a treaty.

B. "Poaching" Claimed Mine Sites

Only a few nations, those that intend to mine the seabed them-

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238. See Deep Seabed Act § 118, supra note 18.
selves, will consider it worthwhile to brave the protests that are bound to arise from the developing countries and the Eastern European countries over joining a reciprocating States regime. If all nations that possess the practical capability to mine the seabed join the agreement, miners may have the necessary security. But at least two of the potential seabed mining nations, France and Canada, have conflicting interests. They are major producers of nickel from terrestrial deposits. Seabed production could compete with their nickel markets. As a result, their interests will not be identical with those of the United States and other nickel importers.

In addition, the United States and its close allies may not have a permanent monopoly on seabed mining. If the Soviet Union should begin seabed mining, it might not be possible to induce it to join the reciprocating States agreement, especially if the best sites had already been claimed.

Because some mine sites are much better than others and because the earliest miners are likely to find and exploit these better sites, later entrants to seabed mining will have a strong incentive to try to "share" sites already claimed by others. Some writers have argued that such "poaching" is unlikely, but their conclusions were based on erroneous projects that hundreds of equivalent mine sites existed. If the later entrants are nations not parties to the reciprocating States agreements, they will be under no legal obligation to respect earlier claims. Should poaching ever occur, the nation originally claiming the site will undoubtedly feel intense political pressure from its miners to defend its interests, despite any earlier disclaimers of exclusive

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239. France has recently passed a law authorizing some seabed mining by its citizens, requiring French companies to give 3.75 percent of the value of the exploited minerals to the developing countries. N.Y. Times, Sept. 17, 1981, at A5, col. 5.

240. N. MATTHEWS, NICKEL (1979). Canada is the world's largest nickel producer. French-held New Caledonia is also a major producer. Canada has been the prime mover behind the limitation on seabed production in the draft treaty. Herman, The Niceties of Nickel—Canada and the Production Ceiling Issue at the Law of the Sea Conference, 6 SYRACUSE J. INT'L L & COM. 265 (1979).

241. So far, the Soviet Union apparently has not tried to develop a deep seabed mining capability. See note 70 supra, for a discussion of the rate at which mine sites might be utilized.

242. See note 70 supra.

jurisdiction. The end result could be the transformation of a regime of reciprocal States agreements to a regime of claims to exclusive rights: the "race to grab and to hold" that the United States has long sought to prevent.

C. Problems of Coordinating National Laws

A reciprocating States regime needs delicate coordination and mutual restraint among its members in order to succeed. Because criteria for claiming a site are arbitrary, nations will have to make sure that their respective national laws closely resemble each other, or else the nation with the easiest regulations will end up holding claims to a disproportionate area. The United States is already encountering difficulties of this kind in its negotiations on interim reciprocal States agreements. The United States wants to limit the mine site size under any one application to 80,000 square kilometers in the exploration phase, and 40,000 square kilometers during commercial exploitation, but other nations want the size limit to be "two, three, or four times" that size. Because a single mine site could yield $10 billion worth of metals over its lifetime, the incentives for expansive claims are very high.

The seabed mining consortia are multinational, so they are likely to seek their permits from the nation with the most permissive regulations. Each nation, however, is likely to try to exercise as much jurisdiction as possible over the mining companies. For example, under the Deep Seabed Act, the United States requires

244. Address of President Lyndon Johnson, supra note 146.
245. See notes 221-36 and accompanying text supra. The reciprocating-states system in the Deep Seabed Act, supra note 18, gives priority to the first claimant of a particular area. The United States will not issue a license or permit to its citizens if it conflicts with a "license, permit, or equivalent authorization" of a reciprocating nation, § 118(b), and the reciprocating nation must give similar recognition to United States permits and licenses, § 118(a)(2). The Administrator of the National Oceanic and Atmospheric Administration is empowered to recognize the reciprocating states if they regulate "in a manner compatible with that provided in this Act and the regulations issued under this Act," § 118(a)(1), including the effective dates for exploration and commercial exploitation.

In addition to the size of an area that can be claimed, potential conflicts that must be negotiated include the duration of permits, work requirements (the United States requires "periodic reasonable expenditures" established by the Administrator in order for the licensee to retain its exploration license, § 108(b)), environmental regulations, and the transferability of licenses.

248. Based on Arthur D. Little, Inc., supra note 7, at 5 (using a 25-year lifetime for the mine site).
249. Id. at 16-29.
any seabed miner with significant American participation to get its permits under the United States law.  The United States statute also requires that vessels used in seabed mining must be documented under United States laws and that processing plants be built in the United States unless economically unfeasible. These impositions of American interests on multinational enterprises have drawn protests from the Japanese and European partners.

D. Creeping Coastal State Jurisdiction

The failure of UNCLOS III and the exploitation of the deep seabed through reciprocating States agreements could lead to new national claims to extended jurisdiction in the oceans. Although the concepts of the “common heritage” and the “freedom of the seas” both forbid exclusive claims to the deep seabed, these prohibitions have a serious weakness: no precise definition exists delimiting the common heritage or high seas area.

The Draft Convention gives coastal States jurisdiction over the economic resources of a broad zone of adjacent ocean and seabed. All coastal nations, regardless of the configuration of the surrounding seabed, are given a 200 nautical mile Exclusive Economic Zone (EEZ). In addition, coastal States are given exclusive control of the mineral resources of the continental shelf, broadly defined by geologic criteria to include virtually all the

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250. The Act defines those who must get licenses and permits under its provisions quite broadly, including any corporation in which American citizens have any influence which will “substantially affect the independent business behavior” of the corporation. Deep Seabed Act, supra note 18, § 4(3).

251. Id. § 102.

252. Id.


254. See notes 200-236 and accompanying text supra.

255. See note 89 supra for the uncertainties raised by the “exploitability,” “adjacency,” and 200-meter limits in the Convention on the Continental Shelf.

256. Draft Convention, supra note 6, art. 56-57. The coastal nation has the sole right to use the living and nonliving economic resources of the exclusive economic zone.

257. The Draft Convention defines the continental shelf of a nation as the submarine areas that are “the natural prolongation of its land territory to the outer edge of the continental margin . . .” id. art. 76(1), although in any case, the coastal State gets 200 miles. The Draft Convention then specifies certain geological criteria for determining the edge of the continental margin. Even if the criteria
areas likely to contain mineral resources (such as petroleum) associated with the continental margin.\textsuperscript{258} Under the Draft Convention, continental shelf jurisdiction cannot exceed 350 nautical miles from the baselines of the territorial sea, or 100 nautical miles from the 2,500 meter isobath, even when the other geological criteria are met.\textsuperscript{259}

In the absence of a comprehensive treaty, nations will surely continue to claim the resources of the submarine areas adjacent to their coastlines. The possibility that nations could take advantage of the ill-defined limits of the common heritage area and extend their jurisdiction to the deep seabed will be restrained to some degree by the body of law holding that continental shelf jurisdiction is limited to the "natural prolongation" of the continental land mass.\textsuperscript{260} For geological reasons, most economically interesting polymetallic nodules lie outside the continental margin.\textsuperscript{261} In a polarized post-UNCLOS environment, however, where the reciprocating States are seen to be making free use of the deep seabed, such national claims may prove tempting to a few countries.

One large, economically attractive area for nodule mining begins about 200 miles from Isla Clarion, an uninhabited island claimed by Mexico, and stretches westward from Mexico for several hundred miles.\textsuperscript{262} Suppose some other nations, on the basis of geological criteria, are recognized to have exclusive jurisdiction over their continental margins up to 400 miles from shore. Can Mexico, without meeting geological criteria, assert jurisdiction over the nodules in this area up to 400 miles from Isla Clarion, claiming perhaps that the entire area is a "natural prolongation" of a deposit beginning in the Mexican EEZ?\textsuperscript{263} What if Mexico of-
ferred to share revenues from the area with the international community?

Undoubtedly, a strong argument could be made that Mexico’s claim would be unwarranted. But at the same time, if the alternative to Mexico’s control was the “free” use of the area by wealthy nations, much of the developing world might applaud Mexico’s assertion of jurisdiction.

VII. SUMMARY AND CONCLUSION

The legal regime that governs seabed mining has been a matter of great controversy in the United States and throughout the world because vast and strategically significant mineral resources are at stake. In an energy-short and tension-filled world, the struggle for resources is a key to national survival.

Lawyers have dusted off old doctrines to try to fit this new resource into some previously developed legal category, but the truth is that no settled international law existed on the resources of the deep seabed prior to the mid-1960s because no one had the capacity to exploit these resources. Some advocates have argued that the polymetallic nodules should be viewed as a res nullius, available to be claimed on a first come, first served basis. No strong precedents exist for this argument, however, and no nation has seriously pursued this approach.

The United States has argued in recent years that seabed mining is a freedom of the high seas, like navigation and fishing. This argument has logical problems because the polymetallic nodules are an exhaustible resource; unlike fishing and navigation, which can be done by many nations at once, profitable seabed mining sites are limited, and a claim by one nation will definitely diminish the resources available to others. The text and negotiating history of the 1958 Convention on the High Seas do not provide much support for the proposition that seabed mining was viewed as a high seas freedom. This approach also has practical problems because it would not give miners an exclusive right to mine a specific part of the seabed.

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resource zones like the exclusive economic zone even if the treaty does not come into force.

264. The argument would be that it has become customary law that a nation can claim only its continental margin—the geological “natural prolongation”—or a resource zone that cannot exceed 200 miles.
Some advocates have argued that seabed mining is permitted by international law simply because it is not specifically prohibited. This approach has sparse authority and ignores the interrelationship of legal rights.

Since the mid-1960's, the nations of the world have worked hard to create a consensus on all questions affecting the ocean's resources. Although a final treaty on the law of the sea remains an elusive goal, many principles have been agreed upon. In the area of seabed mining, at least three principles have gained universal acceptance:

1. The resources of the deep seabed are the common heritage of humankind, and developing countries must enjoy genuine benefits from seabed exploitation.
2. If a law of the sea treaty is completed, and if it is "generally accepted," it will bind nonparties.
3. If a treaty is not completed, nations cannot claim the exclusive use of seabed mine sites.

The United States passed a statute in 1980 to promote seabed mining during the "interim" period prior to the completion of a law of the sea treaty. This statute proposes a "reciprocating States" regime whereby like-minded nations can agree to respect the mining claims of the citizens of other reciprocating nations. This approach may be tempting to the nations that currently have the technology to mine the seabed, but they should be wary of pursuing it because:

1. This regime may lead to "poaching" of mine sites and could otherwise cause international conflict.
2. The "reciprocating" nations may not in fact be able to coordinate their laws and the mining consortia may be tempted to shop around for the least onerous national regulations.
3. This approach may encourage coastal nations to extend their jurisdiction beyond the continental margin to claim seabed areas with rich deposits of nodules.

In addition, the rejection of a global treaty approach in favor of a reciprocating States regime of the technologically advanced Western nations would mean passing up a chance to try to create real international cooperation. If we continue to thwart the success of UNCLOS III, we will be turning our backs on the possibility of building trust relationships through a new international organization that might be able to reduce world tension and increase our long term prospects for peace.

All nations have agreed that the deep seabed is the common heritage of humankind. Although the concept has its ambiguities,
it does impose some legal duties. Nations are not free to do as they please on the seabed; they are not free to pretend that the “common heritage” is an empty phrase without meaning. They are bound by the common heritage principle to provide meaningful sharing of the benefits of the seabed with other nations, particularly the developing nations.

In assessing the fairness of the seabed provisions of a law of the sea treaty, United States decision-makers should look from the perspective of the seabed as the common heritage of humankind. A regime of the freedom of the seas seems to offer some advantages, but they are illusory. The freedom of the seas concept was originally rejected as the basis for a permanent regime by the developed countries because it could not guarantee the exclusive use of mine sites. That reason is still valid, but even more important, the quest for security of tenure in what began as a high seas freedom could eventually lead to dangerous national claims in the seabed.

To attempt to extend the freedoms of the seas to cover seabed mining would confirm the criticism expressed by Rene-Jean Depuy in 1974, that it is a doctrine that promotes inequality in the world: “Freedom of the seas has been akin to ‘Freedom of labour’ in the Industrial Europe of the 19th century: in effect the right of the great was license, that of the poor was submission.”

Seabed mining under the freedom of the seas would bring the doctrine into disrepute even for those uses, such as navigation, for which it was originally intended and for which it retains conceptual validity. The claim that seabed mining is a freedom of the seas is a claim that a common resource, the seabed, can be used in a way that enriches the wealthy nations and further impoverishes the poor ones.

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