JURISDICTIONAL PROBLEMS CREATED
BY ARTIFICIAL ISLANDS

I. GROWING INTEREST IN ARTIFICIAL ISLANDS

Man, by his ever increasing technological skills, has created both the need for and the ability to make artificial islands. An artificial island is simply a fabricated island, constructed either of dirt and rock dredged from the sea bottom, or of steel such as the common off-shore oil platforms. It is a non-naturally formed object, permanently attached to the seabed, completely surrounded by water with its surface above the water at all times.¹

There have been several attempts to create independent nations off the coast of the United States on artificial islands.² Two competing concerns tried to establish a gambling resort on a sunken coral reef four-and-one-half miles off the Elliot Key of Florida. Another enterprise tried, also unsuccessfully, to establish a tax-free nation 120 miles off the coast of California for the purpose of harvesting and processing abalone and lobster.³ Off the coast of Bimini in the Bahamas lies the derelict hulk of a ship which was supposed to be grounded on a reef to create an artificial island.⁴ These plans went awry but as fate would have it the ship later grounded unintentionally during a storm. It was used by liquor smugglers during prohibition, then later it was the subject of plans to create a night club with an aquarium below.⁵ There have


³ Recent Case, supra note 2.

⁴ Stephens, Bimini’s Concrete Wreck, OCEANS (No. 1) (1969) at 22, 27.

⁵ Id.
been several instances of radio stations being set up on artificial islands off the coasts of Western European nations. In the Bahamas, an artificial island has already been created from materials dredged from the sea bottom. Its creator plans to increase its size to 200 acres and has an agreement with the Bahamian government to build eleven more.

Many other artificial islands have been proposed for a variety of purposes, and some possible applications have been extensively studied. Great Britain is considering proposals for a city of 30,000 fifteen miles off her coast, built on an artificial island. It is felt that such cities may be necessary to accommodate growing populations by providing added building space. Scripps Institute of Oceanography has plans for a park in the ocean which will utilize an artificial island for observation and research. Due to expensive nuisance suits and increasing use, airports need locations away from the cities, but must at the same time be near enough to serve population centers. Recently a study recommended seven possible sites for an offshore airport for San Diego. Offshore atomic power plants for New Jersey and Florida have been studied. It is felt that they may solve some of the environmental problems created by atomic reactors and still supply needed power to coastal cities. Several comprehensive studies of the possibility of using artificial islands as offshore superports for handling the new super tankers have been made. Canada has plans for a fifty acre superport. Louisiana and the Maritime Administration have also made detailed studies of superports.

7. New York Times, April 6, 1970, at 41, col. 1. As will be discussed infra, artificial islands associated with the extraction of minerals have a special status in international law.
8. Id.
10. Id. at 43.
11. SAN DIEGO MAGAZINE, July 1972, at 78.
14. Id.
15. 3 MANITOBA L.J. (No. 2) (1969) at 27.
16. Louisiana Superport Task Force, A Superport for Louisiana, June
Superports are an example of one use for artificial islands which has practically become a necessity. Currently, the only ports in the United States capable of handling ships of more than 100,000 deadweight tons (d.w.t.) are on the West Coast, and only one of these can unload a 200,000 d.w.t. ship at berth.\(^1\) As of 1970, there were 319 ships of more than 100,000 d.w.t. in service, and there were 273 ships of more than 200,000 d.w.t. under construction or on order.\(^1\) The largest ship built to date is 477,000 d.w.t. with a draft of 117 feet.\(^2\) Costs of petroleum transportation vary directly in relation to the size of the ship. The larger the ship, the less the transportation cost per unit. The cost per ton to carry oil from the Persian Gulf to the United States North Atlantic ports in a 250,000 d.w.t. ship is less than one half that for a 47,000 d.w.t. ship, which is the average ship now in use.\(^2\) It may be that these super tankers are a necessity. The demand for oil is becoming so great that it would be virtually impossible to build all the 50,000 ton ships needed, or to train crews to man them, and if they were built the ports of the world would become hopelessly congested.\(^2\)

These facts make it clear that there is a need for deep water ports that can serve these huge ships. It is either impossible or prohibitively expensive to deepen and reconstruct the existing North Atlantic ports\(^2\) to handle super tankers. For these reasons, it seems very likely that offshore ports will be constructed in the not-too-distant future.

Superports are only one example of the many possible uses of artificial islands. More important than this variety of uses are the necessary functions that they can serve. Our modern world is becoming crowded, requiring more usable space and energy. Artificial islands open up new areas for cities. They make available deep

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\(^{17}\) OfficE of POrts and IntermodAl SystEmS, DIsION of POrts, MarinE Marine AdMinistratIOn, U.S. DEparteMent of COmmercE, tHe ECONOMICS OF DEEPWATER TErMINAlS (1972) [hereinafter cited as MARITIME ADMINISTRATION STUDY]. See San Diego Union, Nov. 27, 1972, § A, at 1, col. 5; New York Times, May 19, 1972, at 72, col. 5. President Nixon has proposed legislation to permit the Department of the Interior to issue licenses for superports beyond three miles, San Diego Union, April 19, 1973, § A, at 8, col. 1.

\(^{18}\) MARITIME ADMINISTRATION STUDY, supra note 12, at 17.

\(^{19}\) Id. at 5, 6.


\(^{21}\) Louisiana Superport Task Force, supra note 11, at 3; MARITIME ADMINISTRATION STUDY, supra note 12, at 8.

\(^{22}\) MARITIME ADMINISTRATION STUDY, supra note 12, at 6.

\(^{23}\) MARITIME ADMINISTRATION STUDY, supra note 12, at 31.
water ports for the new super tankers, and provide population-free spaces near population centers for nuclear power plants and noisy airports. It is mandatory that the jurisdiction over artificial islands be clarified in order that the international community and individual States may take full advantage of them.

The Jurisdictional Issues

The need for artificial islands and the ability to build them has created imposing questions of jurisdiction which have not been answered. Jurisdictional issues raised by artificial islands can be summarized as follows:

Who can build what?
Where can it be built?
What laws will govern?

Who can build what, and where, is a question of jurisdiction to construct. What laws will govern is a question of jurisdiction to control. For each particular artificial island project, the following questions must be answered: Can this particular person or State build this particular artificial island on the location chosen—and who can control the activities on it?

II. UNITED STATES LAW RELEVANT TO ARTIFICIAL ISLANDS

Existing law in the United States that is relevant to artificial islands is, for the most part, limited to artificial islands which are used for exploiting the natural resources of the continental shelf. However, if by international agreement similar to the 1958 Conventions, a regime of complementary State-International jurisdiction over artificial islands for all uses were created, the application of these existing laws could be extended to cover all artificial islands over which the United States is given jurisdiction.

In general, state laws apply to all structures within three miles of the coast. The Submerged Lands Act24 gave the states title and ownership to the lands beneath the waters extending seaward three miles, while retaining for the United States authority over navigation, flood control and production of power.25 Federal laws apply

to structures erected to exploit natural resources seaward beyond three miles. The Outer Continental Shelf Lands Act\textsuperscript{28} declared jurisdiction and control over the seabed and subsoil of the continental shelf seaward beyond three miles in the United States and provides that the waters above the outer continental shelf retain their character as high seas.

It should be noted that the Outer Continental Shelf Lands Act applies only to the subsoil, the seabed of the continental shelf beyond three miles, and to artificial islands built thereon for the purpose of exploiting the resources of the continental shelf. But the Submerged Lands Act does not limit coastal state jurisdiction to structures constructed to exploit natural resources. Since the United States had practically absolute sovereignty over the territorial sea and gave the seabed to the coastal states in the Submerged Lands Act, coastal states have jurisdiction over all structures erected within three miles of the coast.

Under the Outer Continental Shelf Lands Act, the United States retains \textit{paramount} jurisdiction over the seabed and structures built thereon beyond the three miles seaward from the coast. But under the provisions of this Act, state law will apply in some situations. Section 1333 of this act says:

\begin{enumerate}
\item \textbf{(a)} (1) The Constitution and laws and civil and political jurisdiction of the United States are extended to the subsoil and seabed of the outer Continental Shelf and to all artificial islands and fixed structures which may be erected thereon for the purpose of exploring the same extent as if the outer Continental Shelf were an area of exclusive Federal jurisdiction located within a State: Provided, however, that mineral leases on the outer Continental Shelf shall be maintained or issued only under the provisions of this subchapter.
\item \textbf{(a)} (2) To the extent that they are applicable and not inconsistent with subchapter or with other Federal laws and regulations of the Secretary now in effect, or hereafter adopted, the civil and criminal laws of each adjacent State as of August 7, 1953 are declared to be the law of the United States for that portion of the subsoil and seabed of the outer Continental Shelf, and artificial islands and fixed structures erected thereon.
\end{enumerate}

Of course in any particular case it may be uncertain as to whether state or Federal law applies, thereby opening the controversy to litigation.\textsuperscript{27} The case of \textit{Rodrique v. Aetna Casualty \\& Surety Co.}\textsuperscript{28} reaffirms the principle that Federal law is paramount in disputes arising over incidents in the outer continental shelf, and

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that state laws are only a surrogate to fill voids in Federal law. But in Rodrique it was held that there was such a gap, and that adjacent state law applied to accidental deaths occurring on artificial islands.

Furthermore, the United States has the power to regulate the development of the outer continental shelf, and this power includes the granting of private leases. And since Federal powers are superior to state powers, states cannot inhibit leases given by the Federal Government for the development of the outer continental shelf. In Union Oil Co. of California v. Minier it was held that state nuisance law could not be applied to a federal lessee to enjoin its oil drilling activities on the outer continental shelf.

Under the Outer Continental Shelf Lands Act, the Coast Guard has the authority to make and enforce regulations in regards to lights, warning devices, and safety equipment on structures erected on the outer continental shelf. And the Secretary of the Army has the authority to prevent obstructions to navigation which may be caused by an artificial island. In United States v. Ray it was held that Section 10 of the Rivers and Harbors Act, which prohibits construction in a navigable waterway of any structure unless it has been recommended by the Secretary of the Army, extended to the outer continental shelf.

This power to prevent obstructions to navigation has been used in several instances to prohibit or stop construction of artificial islands for non-extractive purposes on the continental shelf. In United States v. Ray two competing companies had hoped to establish an independent nation on a coral reef approximately 10 miles off the cost of Florida. One company managed to erect four buildings on the reef which were later destroyed by a hurricane.

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29. Id. at 357.
30. Id. at 366.
31. Union Oil Co. of California v. Minier, 437 F.2d 408, 411 (9th Cir. 1970).
32. Id.
33. 43 U.S.C. § 1333(e) (1).
34. 43 U.S.C. § 1333(f).
39. Atlantis Development Corp. v. United States, 379 F.2d 818 (5th Cir. 1967).
In addition to holding that permission from the Secretary of the Army must be obtained, the court held that the United States had sufficient rights, a "vital interest" in the reef, to support an injunction preventing the developers from building on it.\textsuperscript{40}

Similarly, and at approximately the same time, another group tried to establish a nation 120 miles off the coast of California to harvest and process abalone.\textsuperscript{41} They towed a ship offshore and attempted to sink it on the Cortes Bank. The Corps of Engineers quickly declared this to be an obstruction to navigation and under the United States jurisdiction since it was part of the continental shelf. These entrepreneurs apparently halted their efforts to await the outcome of United States v. Ray.

The United States has on several occasions denied having jurisdiction over the seabed for non-extractive purposes. Before attempting actual construction, the developers in United States v. Ray attempted to obtain permission to build from every possible government agency short of the United Nations, and had been informed that the reef was not within the jurisdiction of either the United States or Florida.\textsuperscript{42} Likewise, in 1918, the Department of State replied to a request by an individual for a leasehold on a reef 40 miles from the coast in the Gulf of Mexico (upon which he wished to construct an artificial island for extracting oil), stating that the United States had no jurisdiction over the ocean bottom beyond the territorial sea and therefore it could not grant a leasehold. It went on to say that if this artificial island were erected and did not interfere with the United States or its citizens, then no objections from the United States were likely to be forthcoming.\textsuperscript{43} Presumably this indicates that the United States will not license an artificial island for non-extractive purposes, and that it will use its power to prevent interferences with navigation to stop construction of an unlicensed artificial island. Furthermore, the Cortes Bank incident and the decision in United States v. Ray indicate that the United States has sufficient interest in the continental shelf, though short of ownership, to prevent anyone else from erecting structures thereon, and need not rely solely upon the power to prevent interferences with navigation.\textsuperscript{44} Indeed it would seem that

\textsuperscript{40} United States v. Ray, 423 F.2d 16, 22, 23 (5th Cir. 1970).
\textsuperscript{41} For a discussion of both this and United States v. Ray, see Stang, supra note 2, and Recent Case, 6 San Diego L. Rev. 487 (1969).
\textsuperscript{42} Atlanticis Development Corp. v. United States, 379 F.2d 818, 820-21 (5th Cir. 1967).
\textsuperscript{43} 2 G. Hackworth, Digest of International Law, § 202 at 679-680 (Dept't of State, 1941).
\textsuperscript{44} See, United States v. Ray, 423 F.2d 16, 22-23 (5th Cir. 1970); and
any structure erected on the continental shelf would interfere with
the United States' exclusive rights to the natural resources of the
continental shelf, and the United States could demand its removal.

In the long run, environmental concerns may be the biggest legal
obstacle to artificial islands. For example, Delaware has passed
a law specifically prohibiting superports. Responding to propo-
sals to build a nuclear power plant off their coast, the New Jersey
Legislature immediately passed a resolution calling for legislation
that would bar offshore nuclear power plants. In Zabel v. Tabb,
it was held that the Secretary of the Army can refuse to is-
sue a permit for a structure on ecological grounds, even if it is not
a hazard to navigation. A superport would be particularly sub-
ject to opposition from environmentalists fearing the prospect of oil
or other mineral spills from a huge tanker unloading a few miles
off the coast.

III. INTERNATIONAL LAW AND ARTIFICIAL ISLANDS

A State has, essentially, territorial sovereignty over its internal
waters and territorial sea, and hence within these there are no in-
ternational problems as to the jurisdictional status of artificial is-
lands. Internal waters are those on the landward side of the base
line. This includes bays, lakes, ports, inlets, rivers and harbors.

H. Knight, International and State-Federal Aspects of a Gulf of Mexico
Superport at 13-14, April 27, 1972 (manuscript prepared as a part of staff
study for the Louisiana Superport Task Force, conducted by Louisiana
State University, Office of Sea Grant Development).

45. Letter from John M. Gantus, Office of the General Counsel, Mar-
time Administration, to Craig W. Walker, December 21, 1972. See Times

46. Coastal Zone Act, 7 Del. C. §§ 7001-7013 (1972 Supp.). Sections
7002 and 7003 of this statute specifically prohibit artificial islands for the
transfer of gas, liquids or solids. On the other hand, Louisiana has just
passed a statute expressly for the purpose of facilitating the planning,
construction and operation of a superport, Deep Draft Harbor and Termi-


48. Zabel v. Tabb, 430 F.2d 199 (5th Cir. 1970), cert. denied, 401 U.S.
910.

49. Such worries have been voiced in Another SST?, FORBES, April 15,
1971 at 21. See Comment, Maine's Coastal Conveyance of Oil Act: Juris-

50. C. Colombos, THE INTERNATIONAL LAW OF THE SEA § 180, at 175
(6th ed. 1967); Convention on the Territorial Sea and the Contiguous
Zone, supra note 1, Art. 5.
Internal waters are national waters and are part of the territory of the State. They are subject to the control of the coastal State in a manner similar in degree to land areas. States thus have plenary jurisdiction to build and control activities on any artificial island within their territorial waters. The territorial sea is a belt or zone adjacent to the coastal State, extending from the base line seaward, including the atmosphere, water column, subsoil and seabed. The coastal State exercises absolute sovereignty over its territorial sea, with the exception of rights of innocent passage and entry in distress. Presently there is no international consensus on a uniform breadth of the territorial sea. Claims run from three to 200 miles. The United States has indicated a desire for an international agreement fixing the territorial sea at twelve miles, subject to free passage through those straits which would become entirely territorial waters if the twelve mile limit is accepted.

Since the coastal State enjoys sovereignty over its territorial sea, subject to the rights of innocent passage and entry in distress, it can construct an artificial island and subject it to jurisdiction, as long as the island does not seriously impede innocent passage. Furthermore, it follows that if an artificial island were erected in a State's territorial waters without its authority, the State would have jurisdiction over it. But once beyond any State's territorial sea, we come into the province of international law, and here the jurisdictional problems are tremendous and there are no formulated answers.

**Jurisdiction in International Law**

A State has jurisdiction to deal with any offense committed by anyone within its territory, without regard to nationality, as well as jurisdiction over its citizens wherever they may be. Generally,

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53. Knight, The Draft United Nations Conventions, supra note 52 at 473; Convention on the Territorial Sea and the Contiguous Zone, supra note 1, Arts. 2, 14 & 15.


56. H. Knight, supra note 44, at 3.


58. Ramirez & Feraud Chili Co. v. Las Palmas Food Co., 146 F. Supp. 594,
under the territorial theory of jurisdiction, a State's jurisdiction is limited to its territory and its citizens.\textsuperscript{59} Most nations appear to accept the territorial theory.\textsuperscript{60} However, a major exception is also generally recognized: the protective theory, which holds that a State also has jurisdiction in regards to any crime committed outside of its territory by an alien which is against the security, territorial integrity or political independence of the State.\textsuperscript{61} So beyond a State's territorial sea, jurisdiction is uncertain. If a State wants to erect an artificial island outside of its territorial waters, does it have a legal right to do so, and can it govern the activities on the artificial island? Likewise, what are the legal ramifications if an individual or a foreign State constructs an artificial island off the coast of another State? Could the coastal State assert jurisdiction? Can individuals acting without authority from any State erect and exercise dominion over an artificial island?

Clearly, these inquiries as to the jurisdiction governing construction and regulation present difficulties within the province of international law. As stated by the Supreme Court of the United States: "[W]hatever any nation does in the open sea, which detracts from its common usefulness to nations, or which another nation may charge detracts from it, is a question for consideration among nations as such..."\textsuperscript{62} And by the International Court of Justice in the Anglo-Norwegian Fisheries Case:\textsuperscript{63} "The delimitation of sea areas has always an international aspect; it cannot be dependent merely upon the will of the coastal State as expressed in its municipal law."

\textbf{The Freedom of the High Seas}

The primary obstacle under international law preventing uni-
lateral declarations of jurisdiction over artificial islands is the customary freedom of the high seas. Stated very simply, the doctrine of the freedom of the high seas concedes that the high seas are open to the common use of all men, and are not the territory of any State. Mr. Justice Story put it this way: "Upon the ocean... all possess an entire equality. It is the common highway of all, appropriated to the use of all; and no one can vindicate to himself a superior or exclusive prerogative there." The Convention on the High Seas also declares the freedom of the high seas:

Article 2

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 the 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 the general principles of international law, shall be exercised by all States with reasonable regard to the interests of other States in their exercise of the freedom of the high seas.66

As so often seems the case in law, underlying a supposed rule is a tremendous conflict. There is a fundamental split as to what this rule of the freedom of the high seas means.

There are two points to make about the Convention’s statement as to freedom of the high seas:

1. It refers only to States. Thus it may be argued that only States or individuals acting in the name of a State may invoke the doctrine of the freedom of the high seas, and an individual not acting under the authority of a State would have practically no rights. There is some authority for this view. Sir Humphrey Waldock has stated that "The freedoms of the High seas are the freedoms of States, not of individuals." Sir Humphrey cites the case of Naim

64. The Marrianna Flora, 11 Wheat 1, 42 (1826).
66. Waldock, The R.E.M. Broadcasting Station and the Equipments North Sea Act in RECHTSGELEERDE ADVIZEN 22, 35, July 22, 1964 (opinions of five international law scholars, C. John Colombos, David H.N. Johnson, Charles Rousseau, Sir Humphrey Waldock, Henri Rolin and Frans de Pauw, for the R.E.M., a pirate radio station being threatened by prosecution under the North Sea Installation Act infra. Additionally, it is a matter of dispute whether international law applies to individuals or only to relations between States. Only States can appear before the Interna-
v. Attorney General for Palestine in which the British Privy Council held that a ship without a flag did not fall within the freedom of the seas and could be seized without there being a breach in international law. If this is true, then it would seem that an individual acting on his own cannot validly erect an artificial island on the high seas and if he did, any State would be virtually free to seize it.

(2) The Convention on the High Seas declares that no State may validly subject any part of the high seas to its sovereignty, but it then relates a list of freedoms, stating that these, inter alia, comprise the freedom of the high seas, and furthermore, that "[t]hese freedoms and others which are recognized by the general principles of international law..." This open-ended criterion leaves open to discussion and dispute the question of just what are the freedoms of the high seas.

There is a strict view that only a limited number of freedoms are allowed. As stated by C. John Columbos: "That the fact that a given act is not prohibited by international law does not imply that it is allowable. Any interference with the freedom of the...

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67. Naim Molvan v. Attorney-General for Palestine [1948] A.C. 351, 369 (Palestine). Of course this case only reflects the British view, but it is supported by the Convention on the High Seas which implies that ships must fly flags and that only States have the authority to authorize a ship to fly a flag. Convention on the High Seas, supra note 65, arts. 4, 5, & 6.

68. A related issue is whether an individual can legally, that is under international law, form his own sovereign nation. As mentioned supra there have been several attempts by individuals to form sovereign nations on artificial islands. In 1944 an individual who claimed to have established a method for making the seabed accessible to human exploitation, claimed title and dominion over an area of the seabed. The Department of State informed him that individuals or private concerns could not acquire dominion over lands beneath the high seas for themselves. 4 M. Whiteman, Digest of International Law, § 1, at 740 (Dep't of State, 1965). See also, Browning, Exploitation of Submarine Mineral Resources Beyond the Continental Shelf, 4 Texas Int'l L. Forum 1, 14 (1968). Contra, Johnson v. McIntosh, 8 Wheat 543 (1823); United States v. Fullard-Leo, 133 F.2d 743 (9th Cir. 1943), cert. denied 319 U.S. 748.

seas must be clearly expressed and cannot be presumed.\(^7\) This view seems to hold that freedom of navigation, that is free travel on the high seas for purposes of transportation, is the basic freedom of the high seas, and all other uses, especially those that interfere with navigation, are subject to qualification or limitation.\(^7\) Under this strict view, the high seas are \textit{res communis}, for the common use of all nations. It follows that for all nations to use the high seas in common, none can appropriate any part or proscribe its use to the exclusion of others.\(^7\) Under this strict view, a State's declaration of jurisdiction to construct or control activities on an artificial island would be contrary to the freedom of the high seas,\(^7\) destroying, as it would, the principle of \textit{res communis}.

Some commentators have a contrary opinion. This "liberal" view contends that under the doctrine of the freedom of the high seas, States are free to make any peaceful use of the high seas, subject only to a test of reasonableness as to potential interference with other uses of the high seas.\(^7\) This view is based upon its advocates' opinion that historically the freedom of the seas was a broad concept, allowing a wide variety of acts as long as they did not unreasonably conflict with some other nation's use. Advocates of this proposition claim additional support by their analysis of the Convention on the High Seas and the debates precedent to its formulation.\(^7\)

Sir Humphrey Waldock is an outspoken proponent of the liberal view. He has said: "The right of a State to make whatever use it thinks fit of the high seas has never really been challenged, except on the basis that the particular use in question constituted an unreasonable interference with the rights of other States upon the high seas."\(^7\) In applying his views to artificial islands he says: "Both the Geneva Convention of 1958 and State practice thus sup-


\(^{73}\) van Panhuys, supra note 69, at 315.

\(^{74}\) See McDougal & Burke, supra note 51, at 759, 763; van Panhuys, supra note 69, at 338-39; Johnson, \textit{The Amended Draft Bill (Equipments North Sea Act) Sponsored by the Netherlands Government}, in \textit{Rechtsgeleerde Adviezen}, supra note 66, at 6; and Waldock, supra note 66, at 23-24.

\(^{75}\) See authorities listed at note 74 supra.

\(^{76}\) Waldock, supra note 66, at 24.
port the view that the erection of an artificial structure on the sea bed of the high seas in an act which in itself falls within and is sanctioned by the principle of the freedom of the high seas."

In Waldock's opinion, one State could place an artificial island off the coast of another and the coastal State could not interfere.

A historical basis for this liberal view is that the high seas are *res nullius*, not presently occupied but subject to the sovereignty of a nation by occupation. This concept of the high seas evolved at a time when the high seas and seabed were incapable of being occupied and when no known peaceful use would interfere with the uses of other nations. Since now, by the use of artificial islands, areas of the high seas can be occupied, the concept of *res nullius* would allow these portions of the high seas to become the territory of the occupying State.

The Convention on the High Seas specifically prohibits subjecting any part of the high seas to the sovereignty of any State. An artificial island does just that: it subjects a formerly common area to one State's control and use. If States were allowed to do this freely, large areas of the high seas could foreseeably come under the sovereignty of individual States. Certainly this would tend to be true of areas where there is any special attraction, such as sites rich in mineral resources, hydrocarbons, or perhaps near fishing grounds. "Choice" locations would be taken as quickly as possible by the States with the most advanced technology, leaving little of the riches of the high seas to the less developed or landlocked States. Erecting artificial islands on the high seas is, of course, subject to certain physical limitations. The chosen sites must be relatively shallow before the project can be considered feasible. While suitable localities are by no means common, they are existent and are being thoroughly mapped. Seamounts are some of the more notable potential sites, as they rise far above the seabed in many instances.

Also to be considered is the strong possibility of conflict as States compete for the wealth of the high seas. Add to this the spectre

77. *Id.* at 25.
of unfriendly nations building artificial islands off each other's coasts, and the probability of conflict approaches certainty. The strict interpretation of the freedom of the high seas would avoid these anomalous results. At the same time it does not prohibit the international community from creating a regime prescribing jurisdiction over artificial islands of all uses.

**Artificial Islands on the Continental Shelf**

The Convention on the Continental Shelf, which was done at Geneva at the same time as the Convention on the High Seas and the Convention on the Territorial Sea and Contiguous Zone, did allow a limited encroachment to the freedom of the high seas, in favor of the coastal State. Under this Convention, the continental shelf is "[T]he seabed and subsoil . . . adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources. . . ." The coastal State has exclusive jurisdiction over the continental shelf for the purpose of exploiting its natural resources, but the superjacent waters retain their character as high seas. Coastal States are given jurisdiction to construct and operate installations necessary for exploration and exploitation of the natural resources of the continental shelf. These installations do not have the legal status of natural islands and hence do not have a territorial sea, but they are allowed a 500 metre safety zone.

Unresolved questions still exist as to the jurisdictional effects of the Convention on the Continental Shelf with regards to artificial islands unassociated with the exploitation of natural resources. An interpretation that the Convention prohibits such artificial islands would not be entirely unsupported. The International Law Commission (I.L.C.), which was the preparatory body for the 1958 Conventions, reported in its commentary to the draft articles which dealt with installations for extractive purposes:

> The case is clearly one of assessment of the relative importance of the interests involved. Interference, even if substantial, with navigation, might in some cases be justified. On the other hand, interference even on an insignificant scale would be unjustified if unre-

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82. *Id.,* Art. 2.
83. *Id.*
84. *Id.,* Art. 5.
85. *Id.*
lated to reasonably conceived requirements of exploration and exploitation of the continental shelf.\textsuperscript{86} (emphasis added)

However, the weight of evidence suggests that the Convention is neutral in regards to non-extractive artificial islands. If the doctrine of \textit{inclusio unius est exclusio aterius} is applied, the Convention gives the coastal State exclusive jurisdiction only over artificial islands for extractive purposes, and leaves all other uses to be judged under the general doctrine of the freedom of the seas.\textsuperscript{87} Sir Humphrey Waldock believes that prior to the Convention it was recognized that States could construct drilling installations on the high seas for the purpose of exploiting natural resources, and that the primary issue of the Convention was merely whether the coastal State had exclusive rights to the \textit{natural resources} of the seabed, and thus the status of other uses continues to be unaffected.\textsuperscript{88}

Dr. Mouton, a specialist on the continental shelf, noted that the I.L.C. was concerned chiefly with the question of exploration and exploitation of the natural resources of the continental shelf, and had not intended that their recommendations deal with other uses of the continental shelf.\textsuperscript{89} Professors van Panhuys and Boas are also of that opinion: "The history of the Conference shows, however, that the drafters of the Convention did not entirely rule out a potential use of the continental shelf for other installations, . . . although they were of the opinion that the Conference was not the proper place to examine that subject."\textsuperscript{90}

What discussion there was about artificial islands for non-extractive purposes precipitating the convention was, for the most part, concerned with the possibility that if they were allowed to have a territorial sea, they would be used to extend coastal States' territorial waters. During the 1954 I.L.C. discussions on artificial islands, many differing views were presented. But the main or underlying concern was whether artificial islands should have a territorial sea in light of the possibility that States might wrongfully

\textsuperscript{87} H. Knight, \textit{supra} note 44, at 10; Waldock, \textit{supra} note 66, at 25.
\textsuperscript{88} Waldock, \textit{supra} note 66, at 25. \textit{See also} COLOMBOS, \textit{supra} note 50, \textsection 91A.
\textsuperscript{89} Reported in McDougal \& Burke, \textit{supra} note 51, at 717.
\textsuperscript{90} van Panhuys, \textit{supra} note 69, at 321.
use artificial islands to extend their territorial waters. Addition-
ally there were several comments to the effect that artificial is-
lands would be in violation of the freedom of the high seas *per se*.
Some commentators felt that the question of artificial islands
should be considered separately, while others expressed the opin-
ion that artificial islands could be beneficial and therefore should
not be discouraged.

The definition that emerged was: "An island is an area of land
surrounded by water which is under normal circumstances perma-
nently above the high-water mark." Under this definition a man-
made island of sand and rock would be an island and thus have a
territorial sea. Significantly, the Commission rejected by vote an
amendment which would have added the word "natural" before the
words "area of land". The question of whether offshore struc-
tures could be erected was not resolved, but it seemed settled that
if they were, they would not have a territorial sea but would be
allowed a safety zone.

The above definition of islands was changed during the 1958 Con-
vention by the addition of the word "natural" as had previously
been proposed in 1954. Thus artificial islands, regardless of their
composition, are not allowed a territorial sea. An aura of suspicion
as to the extension of coastal State territorial waters appears to
have prevented use of language broad enough to include jurisdic-
tion over installations other than for extractive purposes.

Some States felt that coastal States should be given sovereignty
over the continental shelf for a variety of purposes, including the
right to prohibit installations not designed for extractive pur-
poses. It was feared, however, that the term "sovereignty" would allow claims to the high seas above the continental shelf and
this was not desired.

If this view, that the Conventions are neutral in regards to arti-
ficial islands (except for the strong feelings which were expressed

9-16, 24, 26-28, 33, 38-39, 48, 54. Lauterpacht also echoes these fears in
92. 1 Y.B. INT'L L. COMM'N, supra note 90, at 92.
93. Id. at 92-94.
94. Id. at 94.
95. Id.
96. Id.
97. See 4 M. WHITEMAN, supra note 68, § 8 at 303.
98. McDougul & Burke, supra note 51 at 397.
99. Id. at 699-700.
100. Id.
101. Id. at 700.
prior to their formulation against allowing the possibility of any extension of territorial waters by artificial islands) is correct, then a declaration of jurisdiction to build and control activities on artificial islands on the continental shelf which expressly denies any claims to territorial waters for such artificial islands would not be contrary to the intent of the Conventions. However, such a declaration would be subject to approval by the international community, and would best be made pursuant to an international regime governing jurisdiction over all types of artificial islands.

Roadsteads

Under the Convention on the Territorial Sea and Contiguous Zone, a strong case can be made for coastal State jurisdiction over superports. Article 9 of this Convention provides that: “Roadsteads which are normally used for the loading, unloading and anchoring of ships, and which would otherwise be situated wholly or partially outside the outer limit of the territorial sea, are included in the territorial sea.” The question remains whether superports can be considered roadsteads. Logically it would seem that they could be, since a superport and a roadstead have virtually identical purposes: the loading, unloading and anchoring of ships.

On the other hand, it has been contended that roadsteads must be enclosed, in part, by natural areas of land, thus ruling out artificial island superports on the high seas. P. Pradier-Fodere says that roadsteads are partially enclosed by land that is more or less raised. However, several writers have defined roadsteads in terms that would include superports. P. Gidel defined roadsteads as being adjacent to ports and receiving ships in natural or artificial basins. And Paul Fauchille says that closed roadsteads are constituted by artificial works or are naturally enclosed and are a portion of the maritime territory of a State. Although there is

102. Convention on the Territorial Sea and the Contiguous Zone, supra note 1, Art. 9.
103. H. Knight, supra note 44, at 18.
104. Id. at 19.
105. PRADIER-FODERÉ, TRAITE DE DROIT INTERNATIONAL PUBLIC 211, quoted in 4 M. WHITEMAN, supra note 68, § 8, at 265.
107. 1 FAUCHILLE, TRAITE DE DROIT INTERNATIONAL PUBLIC pt. 2, at 395, quoted in 4 M. WHITEMAN, supra note 68, § 8, at 265.
a split of opinion, under the above authority, superports can validly be considered roadsteads and be included in the coastal State's territorial sea. As H. Gary Knight has said:

I am of the opinion, in view of the legislative history of the Territorial Sea Convention and recent technological advances in port construction, that a superport facility could be validly assimilated to a roadstead and that territorial sea jurisdiction would therefore be applicable under Article 9.108

1973 Conference on the Law of the Seas

In 1970, the United Nations General Assembly passed a resolution calling for a conference in 1973 on the law of the seas.109 Many of the issues discussed here, including artificial islands, are scheduled to be considered at this conference.110 The following proposal, giving the coastal State jurisdiction to construct and jurisdiction over activities on artificial islands, was made by Dr. Arvid Prado to the United Nations Seabed Committee, which is the preparatory group for the 1973 Conference, on August 23, 1971.111

Article 62
Subject to the provisions of this Convention, the coastal State may construct, and maintain or operate on or under the seabed of national ocean space [from the coastline to 200 miles seaward thereof] habitats, installations, equipment and devices for peaceful purposes

... 

Article 63
The coastal State may construct and maintain or operate in national ocean space artificial islands, floating harbors or other installations for peaceful purposes, anchored to the seabed.

The coastal State has inherently greater interest in the ocean appurtenant to its coast than the international community and so it should have primary jurisdiction over all artificial islands adjacent to its coast, no matter what their use. But at some point in distance seaward, coastal State jurisdiction must be proscribed by international jurisdiction. Almost all proposals for the 1973 Conference contemplate an international agency with significant rule-making and regulatory authority with respect to the exploitation of seabed minerals.112

108. H. Knight, supra note 44, at 18.
110. A tentative list of subjects to be covered can be found in 9 SAN DIEGO L. REV. 600-03 (1972).
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IV. EXISTING CONCEPTS OF INTERNATIONAL LAW AS A BASIS FOR JURISDICTION OVER ARTIFICIAL ISLANDS

The Legal Vacuum Theory

Beginning in about 1958, a number of radio broadcasting stations located either on ships or on fixed structures began operating from outside the territorial waters of a number of West European countries. These so-called "pirate" broadcasting stations were in direct competition with the government owned stations of these countries. Seeking to protect their interests, the affected nations utilized a number of diverse legal methods to prohibit the "pirate" broadcasting stations. On December 3, 1964, the Netherlands invoked the North Sea Installations Act, which extended the criminal law of the Netherlands to installations on the continental shelf appurtenant to the Netherlands. The validity of this Act, as to international law, was partially justified by the legal vacuum doctrine.

Basically, the legal vacuum theory relates that if there is an occurrence that is not covered by existing international law, then the State affected by this transpiration is free to formulate rules to meet the problems thus created. Applied to artificial islands, the doctrine would be: although technology has created the need for, and the ability to build, artificial islands, presently there are no applicable laws, hence the coastal States are free to enact appropriate laws extending their jurisdiction to artificial islands contiguous to their coasts. This doctrine could serve as a basis for both jurisdiction to construct and jurisdiction to control activities on artificial islands.

For a discussion of various proposals that have been submitted for the 1973 Conference see Id.; and Stang, The Donnybrook Fair of the Oceans, 9 SAN DIEGO L. REV. 569 (1972).

113. For a discussion of the pirate radio broadcasting problem see: Hunnings, supra note 6; Smith, Pirate Broadcasting, 41 S. CAL. L. REV. 769 (1968); van Panhuys, supra note 69.


115. van Panhuys, supra note 69, at 337.
The legal vacuum theory has been profoundly assailed on the grounds that there are no legal vacuums in international law, since existing principles can be applied to new situations. For example, it is contended that jurisdiction over the pirate broadcasters is vested in the state of their citizenship, and therefore there is no legal vacuum. In 1955 the Permanent United States Delegation, denying the existence of a legal vacuum on the high seas, made the following statement to the United Nations:

It must be pointed out that the high seas are an area under a definite and established legal status which requires freedom of navigation and use for all. They are not an area in which a legal vacuum exists, free to be filled by individual states, strong or weak. (emphasis added)

Nevertheless, there is substantial opinion to the effect that there is such a thing as a legal vacuum. It was no less renowned an authority than J.P.A. Francois who first advocated the doctrine. Basing a new law on the legal vacuum theory is like killing flies with a shotgun: it’s more than you need, and there is a good chance it will not work. It should not be necessary to find a vacuum before new laws can be established. Furthermore it is not agreed that there are any legal vacuums at all. So any law justified by this doctrine is sure to be surrounded by arguments as to whether there exists a legal vacuum or not. These arguments would cloud any discussion on the merits of the law. When there is need for a new law or a change in existing law, the law proposed to meet this need would be better based on a showing of this need, which can be something less than a vacuum of law, and of the reasonableness of the law proposed to meet that need. Any particular doctrine of international law, ipso facto, affects a number of States. A proposed new doctrine must take these effects into consideration. The need for the new law can be something less than a vacuum, but it must be great enough to justify an interference with the rights of other States. The test would be one of reasonableness: a balancing of the rights and interests of individual States and the international community. The international community will be the ultimate judge of the new law since its validity depends upon their acceptance.

117. Quoted in 4 M. WHITEMAN, supra note 68, § 2 at 54-55.
The Contiguous Zone as a Basis for Coastal State Jurisdiction over Artificial Islands

The basic concept of the contiguous zone is an area of limited jurisdiction over a zone of the high seas contiguous to a State, wherein the State may exercise jurisdiction for specific purposes. Traditionally, this jurisdiction has been limited to police powers over customs and immigration. The Convention on the Territorial Sea and Contiguous Zone limited the contiguous zone to 12 miles and declared coastal State power to: "[P]revent infringement of its customs, fiscal, immigration or sanitary regulations within its territorial sea. . . ."\(^\text{119}\)

Myers McDougal and William Burke feel that this is far too limited an application of the contiguous zone and urge extended application of its concept to new uses of the high seas: "[T]he more economic device of contiguous zone is available for protection of all reasonable interests of the coastal state without endangering the inclusive, common use of the sea."\(^\text{120}\) They feel that the concept of the contiguous zone, and indeed the entire law of the sea, was formerly flexible and would allow for uses other than navigation,\(^\text{121}\) and that by limiting it to 12 miles, and at the same time adherence to an absolute freedom of the high seas, forces expanded claims to territorial waters and interferes with emerging uses.\(^\text{122}\) Their test for deciding what uses may be made of the high seas is one of reasonableness, a balancing of exclusive and inclusive claims.\(^\text{123}\) Their concept of the contiguous zone includes all claims on the high seas for a particular purpose which have a geographical nexus to the coastal State.\(^\text{124}\) Included are such claims as exclusive fishing zones, and exclusive rights to the natural resources of the continental shelf.\(^\text{125}\)

\(^{119}\) Convention on the Territorial Sea and the Contiguous Zone, supra note 1, Art. 24.

\(^{120}\) McDougal & Burke, supra note 51, at 12.

\(^{121}\) Id. at 81, 82, 84 n.186, 86.

\(^{122}\) Id. at 6 n.18, 606-07. See also McDougal in THE LAW OF THE SEA 3, 18-20 (M. Alexander ed. 1967); and Lauterpacht, supra note 90, at 408.

\(^{123}\) McDougal & Burke, supra note 51, at 13, n.32. Knuz, supra note 72, at 830 states that Lauterpacht, Francois and Phleger all agree on practically the same balancing and reasonableness test.

\(^{124}\) McDougal & Burke, supra note 51, at 565-66.

\(^{125}\) Id. at 630-31.
An example of such a balancing of exclusive and inclusive interests in the United States’ policy is this statement by John R. Stevenson, the Legal Advisor of the Department of State and United States Representative on the United Nations Seabed Committee:

In general, the United States has urged that coastal States' interest in control over the resources of their coast, be reconciled with the international community's interest in other uses of the area . . . .

McDougal and Burke’s emphasis on the flexibility of the law of the sea, especially in regard to the contiguous zone, and its ability to accommodate changing conditions seems to be relatively unique. It is valuable for emphasizing that international law can and should change to accommodate new uses, and for suggesting the test of reasonableness—balancing the exclusive needs of the coastal state and the inclusive needs of the international community. Their theories can be very profitably applied to the question of jurisdiction over artificial islands. In fact, they conclude that the coastal States should have exclusive control over any use of the continental shelf which requires fixed installations.

A Change in International Law

International law is not a rigid, unchanging set of rules. It is in a continual state of flux, sometimes confronting issues and problems quickly, sometimes slowly. Professor Lauterpacht has this to say about a change in the freedom of the seas:

The principle of the freedom of the seas cannot be treated as a rigid dogma incapable of adaptation to situations which were outside the realm of practical possibilities in the period when that principle first became part of international law.

An excellent example of change in international law is the emergence of coastal State jurisdiction over the natural resources in the adjacent continental shelf. The doctrine of the continental shelf was not a development of a pre-existing international norm. It was a completely novel development. Underwater drilling for oil began in the 1890's off piers on the California coast. For

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126. Stevenson, supra note 111 at 474.

127. Ian Brownlie, in his book Principals of Public International Law at 196 n.4 (1966), says that McDougal & Burke apply the rubric of the Contiguous zone too widely.


129. 1 M. Whiteman, Digest of International Law § 1 at 1 (Dep’t of State 1963).


131. Knuz, supra note 72, at 830.

132. G. Mangone, The United Nations: International Law and the
practical purposes, coastal State jurisdiction over the minerals of the continental shelf began with the Truman Proclamation of 1945,133 in which President Truman declared that the natural resources of the continental shelf contiguous to the United States were subject to the jurisdiction and control of the United States.

The reasons for this unilateral extension of jurisdiction were stated in the Proclamation: due to a need for new sources of petroleum and other minerals, to encourage discovery of new sources of these resources, because the continental shelf contains many of these resources, recognized jurisdiction is required for proper conservation and utilization of these resources, and since the continental shelf is an extension of the land mass of the coastal State and thus naturally appurtenant to it, and since self-protection of the coastal State and cooperation and protection from the shore are necessary.134

In 1958, the newly created Convention on the Continental Shelf provided that: "The Coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources."135 And in 1969, the International Court of Justice in the North Sea Continental Shelf Cases recognized that coastal State jurisdiction for the purpose of exploiting the natural resources of the continental shelf had become a rule of law.136

Besides being an example of a change in international law, this is also an example of how a unilateral declaration of jurisdiction based upon a showing of the need and the reasonableness of the law proposed to meet the need, can develop into accepted international law. A similar though not desirable declaration of jurisdiction over all structures built on the continental shelf could well be made with similar results.137

134. Id.
135. Convention on the Continental Shelf, supra note 80, Art. 2.
137. H. Knight, supra note 44, at 7.
V. A Legal Regime for Artificial Islands

Several authorities advocate exclusive coastal State authority over any use of the continental shelf which requires fixed installations. Beyond the continental shelf, artificial islands and other permanent installations should be subject to international control.

As international law now stands, the questions who, what, where and what laws will govern cannot be answered. The only certainty is that a coastal State can erect and control the activities on an artificial island within its internal and territorial waters. An international regime is necessary to completely solve the jurisdictional issues of artificial islands. Hopefully, the forthcoming Conference on the Law of the Sea will result in such a regime. Failure to adopt a regime has grave consequences. It would practically force nations desiring and needing to make use of artificial islands for non-extractive purposes beyond their territorial seas to unilaterally declare jurisdiction to build and control them. Such unilateral declarations have a very strong precedent in the Truman Proclamation of 1945. The danger in unilateral declarations is that they may be contrary to the interests of the international community, subjecting large areas of the formerly free high seas to the jurisdiction and control of individual States, severely impairing the freedom of the seas and allowing the more technologically advanced, wealthy nations to grab the bounty of the seas for their exclusive use. Even a well-intended, reasonable and necessary unilateral declaration of extended coastal State jurisdiction is dangerous in that other nations may base an unreasonable unilateral declaration of jurisdiction on prior reasonable and necessary ones. The classic examples are the declarations of several South American countries of a 200 mile territorial sea—which were based, in part, upon the Truman Proclamation. Furthermore, there is the grave problem of pollution, and the meritorious desire to limit the high seas to peaceful uses, both of which can only be effected by international proscriptions.

International law can and does change to adapt to new circumstances. The evolution of the necessity for and the capability to build artificial islands is such a new circumstance. Currently, the lack of certainty of jurisdiction over artificial islands for non-extractive purposes greatly hinders their use, and raises a possibility of creation of artificial islands detrimental to the interests of both

the international community and the individual coastal States. Therefore, an international regime encompassing artificial islands for all uses is necessary and proper.

Such a regime should recognize that the coastal State has inherent, paramount economic and security interests in the seas appurtenant to its coast and is best able to promote and protect these interests and should thus have primary jurisdiction to construct and control activities on artificial islands within an area encompassing some distance seaward, which would be set by agreement among nations. The coastal State's jurisdiction within this area should not be exclusive: there should be international machinery, perhaps a special commission, to insure that the freedom of the seas is preserved, that pollution is controlled, and that only reasonable and peaceful uses are effectuated. This should be an expressly limited extension of coastal State authority; the waters should retain their character as high seas. Each particular artificial island must be justified by balancing its benefit to the coastal State with its interference with the freedom of the high seas and with the pollution it causes. No artificial island should have a territorial sea, but should be allowed a safety zone that would vary in width and in the type of acts prohibited within it, according to the requirements of the use of the particular island. For example, an offshore airport would require a safety zone in the air as well as on the water.

Beyond the area of primary coastal State jurisdiction the construction and use of artificial islands should be under the exclusive control of the international community for the benefit of all States, especially the landlocked, the shelf-locked, and the underdeveloped.

The creation of this regime will take a great deal of planning, negotiation, and goodwill, especially on the part of the developed countries who, in essence, will be giving up the opportunity to exercise their greater ability to reap the wealth of the oceans on a first-come, first-served basis. But they should realize that they will gain insured freedom of the seas, insured peaceful use of the seas, and control of pollution: in general, an orderly development of the oceans which is beneficial to all nations and which surpasses any limited benefits which might accrue to a few nations from a laissez-faire attitude toward artificial islands.

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