ASSEMBLAGE-ORIENTED OCEAN RESOURCE MANAGEMENT: HOW THE MARINE ENVIRONMENT WASHES OVER TRADITIONAL TERRITORIAL LINES

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The failure of territory-oriented ocean resource management regimes to address successfully the transboundary nature of many offshore geological systems and ecological assemblages is well-documented.[1] Coastal states conservatively managing fisheries within their jurisdiction can see their efforts undermined and their sacrifices negated by fishers exploiting the resource beyond their jurisdictional reach.[2] Offshore oil and gas fields that stretch below and across political boundaries can lead to overcapitalization by accessors racing to extract the same resources from both sides. Would-be users of other offshore space or resources

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1. *See, e.g.*, THE DRAMA OF THE COMMONS *passim* (Elinor Ostrom et al. eds., 2002); Lawrence Juda, *The European Union and Ocean Use Management: The Marine Strategy and the Maritime Policy*, 38 OCEAN DEV. & INT'L L. 259 (2007).

2. *See, e.g.*, *Canadians Win Fish-Boundary Dispute*, FRESNO BEE, June 14, 1992, at A15, *available at* 1992 WLNR 1406646.

seek certainty in dealing with the appropriate (if any) governing authorities administering or authorizing such uses.

This Essay assesses challenges that arise when marine territorial boundaries do not encompass the appropriate assemblage of resources and relationships necessary for effective authority and management. It reviews the manner in which certain offshore resource uses have been "*quasi*-territorialized" by the application of other forms of jurisdiction. It also highlights regime-jurisdiction-private interest-oriented[3] responses to territory-oriented challenges in the form of assemblages of authority, interests, space, and time. Given the scalar progression of the links in the discussion, the assessment moves from international principles to exercises of national sovereignty to domestic administration of space and resources to private legal interests.

Part I briefly describes a series of multinational regimes that have existed over time and which have supported national claims of sovereignty and jurisdiction. Part II outlines the manner in which nations, particularly the United States, have worked within international regimes to support sovereignty claims and (territorial and non-territorial) jurisdictional claims to a range of offshore resources, including fish, submerged lands, guano islands and energy. In doing so, the Part notes that some such claims are based upon proximity, geology, labor, and exploitability. Part III then assesses those sovereignty and jurisdictional bases to illustrate the manner in which the public administration of offshore resources has evolved over time, often prompted by private initiatives. Part IV indicates that, in an era of globalization, territory is no longer as vital as it once was to support economic development. The vital interest of would-be developers of offshore resources is access, which requires legally recognized private interests protected by a State's domestic administration. In turn, this access has been built upon such nation's jurisdictional claims, which ultimately must comport with principles of public international law. This reality suggests an assemblage oriented approach to jurisdiction, management, and development. Some examples are provided in support of this assertion.

3. Private interests in ocean space or resources depend upon some recognized governmental claim of sovereignty or jurisdiction, which in turn relies upon some international law of the sea regime accommodating such claims. *See infra* Part IV.

I. THE GLOBAL SCALE: CROSSING OCEANS AND CROSSING LINES

The ocean environment has long been considered "the last . . . frontier on our planet."[4] Until the twentieth century the vast majority of ocean space, while accessible and often used, was free of the effective strictures of political or economic territorialization. And, most internationally recognized ocean boundary lines were restricted to relatively proximate territorial seas a few miles from a State's shores.[5] Delineations regarding jurisdiction and access dating as far back as the eleventh century were ordinarily explicit about a narrow claim of right.[6]

Interestingly, a late fifteenth century demarcation line running vertically through the Atlantic is one of the earliest globe-spanning lines drawn in the sea that suggests allocated rights of access and use. In 1493, Pope Alexander approved a request by Spain to acknowledge Spain's claim of right to all "new" lands west of an ocean boundary line, which in effect suggested Spain should have superior rights over the Americas.[7] But even that early and seemingly authoritative delineation demonstrates the fragility and dynamism of such boundary-making. In 1494 Portugal pressed its claim to certain New World areas and the two States' competing claims were ultimately reconciled via the Treaty of Torsedillas, which moved the demarcation line further west, providing Portugal with greater access to certain central-western portions of the Atlantic and providing it with a foothold in present day Brazil. And while these fifteenth century papal pronunciations may have influenced the activities of Spain and Portugal during early forays across the Atlantic, the demarcation line was by no means universally accepted. In the sixteenth and seventeenth centuries, other European nations began traversing the Atlantic in search of resources and footholds for North American settlement.

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4. Federico Mayor, *Preface* to OCEAN FRONTIERS: EXPLORATIONS BY OCEANOGRAPHERS ON FIVE CONTINENTS *passim* (Elisabeth Mann Borgese ed., 1992).

5. Convention on the Territorial Sea and the Contiguous Zone art. 24, Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205 (indicating that, due to the twelve mile contiguous zone limit agreed to in the Convention, which was widely applicable through the 1980s, most States claimed some lesser extent of their territorial sea).

6. Bo Johnson Theutenberg, *Mare Clausum et Mare Liberum*, 37 ARCTIC 481, 481 (1984) (discussing a 1023 English claim for a portion of the English channel for salvage access purposes and twelfth century complementary claims of Norway and Iceland over waters located between them).

7. POPE ALEXANDER VI, THE BULL INTER CAETERA, *translated in* 1 EUROPEAN TREATIES BEARING ON THE HISTORY OF THE UNITED STATES AND ITS DEPENDENCIES TO 1648 71, 75–78 (Frances Gardiner Davenport ed., Carnegie Inst. of Wash. 1917) (1493); *see also* LYLE N. MCALLISTER, SPAIN AND PORTUGAL IN THE NEW WORLD: 1492–1700 74–75 (1984); PHILIP E. STEINBERG, THE SOCIAL CONSTRUCTION OF THE OCEAN 75–76 (2001).

While Western Europe's efforts to colonize the Americas and the natural resource wealth therein were primarily terrestrial in nature, the sea was their medium for doing so. Their claims to these resources were widely accepted as among the rights afforded to discoverers and conquerors colonizing the New World. For the first three post-Colombian centuries, most of the North American inhabitants of European descent, their centers of commerce and transportation, and their economic livelihoods were tied to coastal communities dotting the east coast. The colonizing forces employed *imperium* (claims, rights, and responsibilities of sovereignty) as well as *dominium* (claims of jurisdiction and administration) over the New World lands. During that span of time and well into the twentieth century, however, a State's authority and control over ocean space were directly related to its capacity to project power into such space. As States' capacities were often limited, vast expanses of the world's oceans, including the most economically valuable portions, have been considered *res communis*, universally accessible in accordance with the view espoused by Grotius in his 1608 Mare Liberum.[8]

At roughly the same time that the major powers of Western Europe embarked on their global colonization of territory and natural resources, critics of the nature of government began espousing ideas that would shape the modern world. In the late seventeenth century, John Locke issued a scathing rebuke of monarchical government and planted the seeds for modern democracy.[9] While his Two Treatises of Government are most famous for their novel philosophy of government, their ideas regarding property serve as foundational elements of modern English and American Property Law. Locke addressed a conundrum regarding ownership rights over wild animals and common pool resources. Noting that "there must of necessity be a means *to appropriate* [common resources] some way or other before they can be of any use, or at all beneficial to any particular Man,"[10] he suggested that they could effectively be appropriated via the application of human labor.

Locke's notion of appropriation via labor—often referred to as the "rule of capture"—has a parallel in the labor-oriented principle of colonization, i.e., discovery and settlement. If the New World was deemed undiscovered and therefore unowned until European landings, history recounts that immense and often brutal labor was employed to bring

8. *See* HUGO GROTIUS, THE FREEDOM OF THE SEAS *passim* (Ralph Van Deman Magoffin trans., Oxford Univ. Press 1916) (1608).

9. *See* JOHN LOCKE, TWO TREATISES OF GOVERNMENT (Peter Laslett ed., Cambridge Univ. Press 1960) (1690).

10. *Id.* at 328 para. 26 (emphasis in original).

North American land and resources under the control and authority of the a variety of laborer-conquerors.

Until the twentieth century, control of the seas was important not so much for the resources therein, but as a means of colonizing overseas lands. While the rule of capture applied to extraction of fish from the seas, there was no universally accepted regime regarding sovereign rights of access to the oceans. As ship-building, navigational skills and instruments developed over time, the capacity to reach and exploit off-shore resources increased. As a result access became a key to ocean riches.

Two competing seventeenth century ideas—*Mare Liberum*, or the notion that the seas ought to be freely accessible and incapable of being exclusively enclosed by any nation, and *Mare Clausum*, or the idea that the sea was capable of enclosure—expressed the tension between efforts to preserve ocean freedom and actions seeking to territorialize effectively portions of the seas.[11] That tension continued into the twentieth century, when U.N.—facilitated efforts to negotiate and codify international law of the sea principles bore fruit in the form of a series of four treaties resulting from the 1958 United Nations Conference on the Law of the Sea (UNCLOS I). While those four treaties dealt with a range of law of the sea principles"[12] their lack of specificity and their failure to anticipate the influence that technological developments would have on ocean resource development rendered them relatively deficient in a matter of years. Although a Second U.N. Conference on the Law of the Sea failed to bring about any changes, a Third Conference led to a decade-long multilateral negotiation that resulted in a comprehensive Convention in 1982.[13] None of the conference or negotiations leading to those treaties originated from a blank slate; rather they built upon a collection of ideas, customs, claims, and principles that had been developing for centuries. And while the actors seeking to claim or protect the oceans often did so from a national perspective they understood that those national perspectives had to exist within public international law regimes. While particular

11. *See e.g.*, Mónica Brito Vieira, *Mare Liberum vs. Mare Clausum: Grotius, Freitas, and Selden's Debate on Dominion over the Seas*, 64 J. HIST. IDEAS 361 (2003).

12. Convention on the High Seas art. 2, Apr. 29, 1958, 13 U.S.T. 2312, 450 U.N.T.S. 82 (relating to high seas "freedoms); Convention on the Territorial Sea and the Contiguous Zone, *supra* note 5 (territorial sea and contiguous zone authority); Convention on the Continental Shelf, Apr. 29, 1958, 15 U.S.T. 471, 499 U.N.T.S. 311 [hereinafter Convention on the Continental Shelf] (continental shelf interests); Convention on Fishing and Conservation of the Living Resources of the High Seas, Apr. 29, 1958, 17 U.S.T. 138, 559 U.N.T.S. 285 (living marine resource management rights and responsibilities).

13. Third United Nations Conference on the Law of the Sea, *United Nations Convention on the Law of the Sea*, U.N. Doc A/CONF.62/122 (Oct. 7, 1982) *reprinted in* 21 I.L.M. 1261 (1982) [hereinafter United Nations Convention on the Law of the Sea].

U.S.-oriented offshore boundary issues are highlighted in Part II, the role of technology and technology's influence in supporting U.S. claims that shaped international law merit mention here.

With the exception of narrow bands of sea stretching no more than three miles from a nation's shores, the earth's marine areas historically were very much frontier areas hostile to human use and intrusion; although valuable, the nature of the ocean and the inherent risks of venturing into it, coupled with uncertainty in the laws governing State claims to offshore resources, rendered them largely inaccessible. While technological developments in late nineteenth and early twentieth century indicated the increasing capacity of humans to extract a greater and wider variety of economic value from offshore areas, two events in the 1940s signaled some of the great changes to come.

In the opening pages of his book, The Silent World, Jacques Cousteau employs a legal term ordinarily used in discussions of territory, property, and ownership. In relating his first experience using the aqualung that he conceived with Emile Gagnan,[14] he says, "I looked into the sea with the same *sense of trespass* that I have felt on every dive."[15] But that 1943 dive was different for Cousteau since, for the first time, he was untethered from the cumbersome breathing hoses of the past and was able to break free of one earthly medium to enter another. This breakthrough enabling free (albeit limited) access to expanses of the subsurface sea came forty years after the Wright Brothers similarly broke free from earth to explore the expanses of the sky. Why did Cousteau characterize his ventures into the sea as "trespass?" His choice of words suggests that he considered the ocean realm to be something other than unoccupied. For years, using other means of access, Cousteau had been exploring the life and ecological relationships that occupy the sea. His statement suggests a sense of intrusion into others' space. But history suggests that his sense of exploration overcame his sense of transgression into other-space.

He may have been employing the term to highlight the romantic notion of the ocean as an other-space incapable of human claim; but, shortly after Cousteau's first aqualung dive, the inclination of humans to claim greater expanses of the sea began in earnest. In 1945, U.S. President Harry Truman issued a proclamation designed to put to rest the notion that venturing offshore would amount to trespass. The President's

14. The aqualung is the name applied to the early versions of a self contained underwater breathing apparatus (SCUBA), which includes an air cylinder and a demand regulator. Cousteau and Emile Gagnan (an industrial engineer) designed and successfully employed the device in 1943. *See* JACQUES-YVES COUSTEAU, THE COUSTEAU ALMANAC 470 (1981).

15. J. Y. COUSTEAU AND FRÉDÉRIC DUMAS, THE SILENT WORLD 5 (Harper & Row 1953) (1950) (emphasis added).

proclamation claimed exclusive jurisdiction over the resources on and below the continental shelf of the United States.[16]

For purposes of this discussion there are three particularly noteworthy elements of the proclamation. First, President Truman noted at the outset that the United States' new ability to extract offshore petroleum was a primary impetus for the claim. Second, Truman claimed that the continental shelf areas were extensions of the landmass of the United States and "appurtenant" to it. Third, the terms used in and conspicuously omitted from the proclamation merit mention. The Proclamation never employed the terms "territory" or "sovereignty" but rather claimed "jurisdiction and control" And even those claims were qualified by the practical factor of actual accessibility or exploitability.

President Truman's claim of U.S. authority over vast, although at the time undetermined, expanses of offshore space was a significant moment in the development of public international law. There existed no international law of the sea regime to support the claim. And while some critics may have suggested initially that President Truman's claim of exclusive authority stemmed from the *mare clausum* school of thought, his choice of words and explicit acknowledgment that "[t]he character as high seas of the waters above the continental shelf and the right to their free and unimpeded navigation are in no way thus affected" signals his respect to *mare liberum* principles. Estimates based on technological capacity suggested that the boundary of exploitability, and therefore the extent of jurisdictional claims, extended to, but perhaps not further than, the 100 fathom isobath.[17] Within a few years of the Truman Proclamation, a number of other coastal States followed suit.[18]

In 1950, one legal scholar suggested that so many States had adopted such claims that a customary international law principle may have emerged.[19] The 1958 Convention on the Continental Shelf served as a codifying mechanism for these types of claims. In fact both the 1958 Convention on the Continental Shelf and the 1982 Convention on the Law of the Sea's provisions regarding the continental shelf employ a term Truman refrained from using, i.e., "sovereignty," albeit it in a manner that limits such sovereignty to exploration and exploitation of natural

16. Proclamation No. 2667, 10 Fed. Reg. 12,303, para. 6 (Oct. 2, 1945) [hereinafter Truman Proclamation] ("[T]he United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.").

17. *See* Press Release, White House (Sept. 30, 1945), *as reprinted in* Continental Shelf, 4 Whiteman DIGEST § 2, at 762.

18. *See* ANN L. HOLLICK, U.S. FOREIGN POLICY AND THE LAW OF THE SEA 117–20 (1981).

19. H. Lauterpacht, *Sovereignty Over Submarine Areas*, 1950 BR. Y.B. INT'L L. 376, 393–98.

resources.[20] The 1958 Convention did not employ the term territory, nor did it establish a well-defined boundary. In fact, its attempts to employ an optional functional delineation principle—"to where the depth of the superjacent waters admits of the exploitation of the natural resources"—rather than an exclusive geographical limit (for example, a 200 metre isobath) muddied rather than clarified efforts to determine its practical meaning.[21]

The "exploitability principle" served to support authoritative and jurisdictional claims but it did so in a way much different than traditional claims of territory. Territorial claims were historically made by projection of force and occupation into a geographic area; claims based on exploitability do not lend themselves to facile boundary delineation. How does one map the functional boundary of exploitability? The 1982 Convention sought to resolve these "rubber boundary"[22] questions by creating a geo-legal continental shelf regime that would afford coastal States claims of 200 nautical miles even where the geography did not support such claims, and even greater claims where the geography did. [23]

Having outlined certain relevant aspects of the development of international law of the sea principles, in the next Part I explore the manner in which a given nation operates within that international context, a topic well illustrated by the history of the United States from its sovereign origin.

II. The United States: Independent of a King, Dependent on the Ocean

A basic relationship that serves as a helpful foundation for research related to ocean and coastal law can be summed up like this: the use and development of offshore resources affects and is affected by legal and public policy developments. Those two factors (use/development and law/policy) in turn affect and are affected by the offshore resources themselves and the ecosystems within which they exist.

The generic references to resource development, legal development, and ecology are not only short-hand in terms of their generality but are purposely non-specific to indicate that neither the state of law, the state of natural resource development, nor the state of the ecosystem is static,

20. Both the Convention on the Continental Shelf, *supra* note 12, art. 2. and the United Nations Convention on the Law of the Sea, *supra* note 13, art. 77(1), state "[t]he coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources."

21. Convention on the Continental Shelf, *supra* note 12, art. 1.

22. William T. Burke, International Law of the Sea 2–13 (1998).

23. United Nations Convention on the Law of the Sea, *supra* note 13, art. 76.

but rather each is dynamic. That dynamism becomes readily apparent when the status of one component or the relationship between two or more of them is disrupted. A familiar example of such a disruption is provided by our own nation at its origin.

In scribing the Declaration of Independence, Thomas Jefferson outlined a disruption—a dissolution of the political bonds between the American Colonies and their overseas sovereign—and in so doing brought to an end a century and a half colonization of tremendous wealth in the form of territory and natural resources. Interestingly, he invoked the "laws of nature" when outlining the founders' rationale for claiming independence from an English king. And, more importantly for this discussion, he implied a dependence on onshore and offshore resources when he claimed the seas and coasts for the people of this nascent nation—not as spatially defining boundaries but as important resources.[24] In so doing he may be one of the earliest revolutionaries to stake a claim for a new nation, in part, by virtue of resources and use as much as by territory and space.

Having cited Jefferson, it is merited to revisit an individual whose writings Jefferson relied upon, not only in his thinking but in his drafting of the Declaration—John Locke. Jefferson appropriated important ideas and indeed passages of Locke's writings when he stated the rationale for revolution against a monarch, whose "long train of abuses," he argued, justified such action.[25] In claiming that "[King George] has plundered *our* seas [and] has ravaged *our* coasts" Jefferson reaches beyond Locke's notion of government or property. While Locke espoused a labor theory of property appropriation, Jefferson applied a proximity and use principle when he suggested that the people of an independent United States ought to govern their own territory including "[their] seas."

In any discussion of territory, authority and rights related to offshore resources it is important to establish the relationship between public law-oriented notions of notions of territory and private law notions of property. Other contributors to this symposium volume have highlighted the traditional boundary-territory relationships and may even have suggested that there can be territory without boundaries. I suggest that, from the very moment that the United States came into being, U.S. offshore resource governance practices have relied upon notions of boundaries that are moving away from a territorial basis and toward a more jurisdictional basis. In doing so, I suggest that the unique and dynamic nature of many

24. "He has plundered our seas, he has ravaged our Coasts . . . he has destroyed the lives of our people." THE DECLARATION OF INDEPENDENCE para. 26 (U.S. 1776), *available at* http://www.archives.gov/exhibits/charters/declaration_transcript.html.

25. *See id.*; LOCKE, *supra* note 9, at 454–77.

offshore resources has prompted that movement and, in doing so, has effectively eroded need for traditional territorial lines and has fostered the application of non-territorial bases for jurisdiction. And, since the growth and development of the United States has depended upon offshore resources, the United States has continually engaged in efforts to claim, administer, and develop those resources via evolved notions of territorial and non-territorial jurisdiction, leading to practical new management assemblages.

A. *Shifting Governance and Management from Territory to Other Bases*

When Jefferson made his claim of "our seas" in 1776, he did so not based on any internationally accepted principles of territorial sovereignty over ocean space. Indeed, at the time there was little if any standardized agreement regarding a coastal State's sovereignty over or even right of exclusion from waters extending beyond the internal waters, ports, and immediate nearshore offshore space. In fact, any notion that a band of waters adjacent to a coastal State might be governable was limited to the practical reach of a cannonball. An early U.S. Supreme Court decision suggesting that a coastal State's authority was "not confined to [its] harbors or the range of its batteries[]" was limited in nature and scope because it suggested that a nation might exert its authority offshore in very limited circumstances, i.e., to interdict ships bound for illicit trade in the coastal State's ports.[26]

In his 1862 annual message to Congress, President Abraham Lincoln noted that "a nation may be said to consist of its territory, its people and its laws."[27] Some international treaties and international law treatises expand upon this definition, suggesting that a State, to be recognized as such, must exhibit four key components: a defined territory, a permanent population, a government, and a capacity to conduct international relations.[28] In the United States, a glance at the American Law Institute's Restatement (Third) of Foreign Relations suggests that the territory component ought to be somewhat discernable but that it may fall short of being completely definable. A reading of the Restatement's comments and Reporters' Notes related to the requisite aspects of statehood[29] pro-

26. Church v. Hubbart, 6 U.S. (2 Cranch) 187, 187 (1804).

27. Abraham Lincoln, Annual Message to Congress (Dec. 1, 1862) *reprinted in* Abraham Lincoln—Speeches and Writings 1859–1865 393, 403 (Roy P. Basler ed., 1989).

28. *See* Convention on Rights and Duties of States art. 1, Dec. 26, 1933, 49 Stat. 3097, 165 L.N.T.S. 19 (Montevideo Convention).

29. Restatement (Third) of Foreign Relations Law § 201 (1987). ("State defined. Under international law, a [S]tate is an entity that has a defined territory and a permanent population, under the control of its own government, and that engages in, or has the capacity to engage in, formal relations with other such entities.").

vides one possible answer to the question implicit in the Symposium's title—yes, there is territory without boundaries.

Section 201's Comment b., regarding the defined territory aspect of a State, notes that "[a]n entity may satisfy the territorial requirement for statehood even if its boundaries have not been finally settled, if one or more of its boundaries are disputed, or if some of its territory is claimed by another [S]tate." [30] Nonetheless, a discernible offshore landmass with identifiable boundaries may still provoke another question: whose territory is it?

1. Las Palmas

An early twentieth century conflict illustrates the isolating effect that the ocean has on a remote island which could in fact lead to the erosion of even the strongest claim of jurisdiction, i.e., territorial sovereignty. In the case of las Plamas, isolation resulted in de facto abandonment ultimately capitalized upon by another nation. In the Island of Palmas dispute between the United States and the Netherlands,[31] an arbitrator ruled that the Netherlands had sovereignty over an isolated island situated roughly midway between two island groups governed by the contesting parties. In doing so, he examined the respective claims of acquisition of title to the island. use.[32] The key factor, he determined, was not whether one nation had succeeded to valid title and sovereignty (the United States claimed to be a successor-in-interest to Spain, which had discovered the island) but whether that claim of sovereignty endured in light of a lack of occupation, protection, or use by the United States.

During a decades-long span of disinterest on the part of the United States, the Netherlands and its nationals had increasingly, and somewhat continuously, used and claimed the island as their own. Unlike the United States, the Netherlands could not point to a specific point in time at which its sovereignty attached. Nonetheless, in his decision, Arbitrator Huber noted that "[i]t is quite natural that sovereignty may be the outcome of a slow evolution, of a progressive intensification of State control."[33] An interesting manifestation of occupancy and administration on the part of the Netherlands, noted the arbitrator, was the taxation of

30. *Id.* § 201 cmt. b ("*Defined territory*. An entity may satisfy the territorial requirement for statehood even if its boundaries have not been finally settled, if one or more of its boundaries are disputed, or if some of its territory is claimed by another state." (emphasis in original)).

31. Island of Palmas Case (U.S. v. Neth.), 2 R. Int'l. Arb. Awards 829 (Perm. Ct. Arb. 1928).

32. *Id.* at 867 ("[The United States has] not established the fact that sovereignty so acquired was effectively displayed at any time.").

33. *Id.* at 867.

the people of las Palmas.[34] His statement suggests that one State's claim of sovereignty may accrete by occupation and administration, and in so doing erode another State's prior claim of sovereignty.

2. Guano islands

Although natural resources are often associated with the territory in which they are situated (and the sovereignty that applies therein), marine resource development, to read between and employ Lincoln's lines, has often been affected less by territorial considerations than by the initiative of people and the actions of lawmakers. A handful of nineteenth century examples serve as illustrations.

No one will ever confuse bat and bird excrement (guano) with territory. Nonetheless, the United States Congress saw guano as an important enough resource to fashion a law supporting entrepreneurial efforts to discover, claim, and exploit the resource in a fashion parallel, but not identical, to traditional means of discovery, claim, and exploitation of territory. When Congress passed the Guano Act of 1856[35] they stated:

> Whenever any citizen of the United States discovers a deposit of guano on any island, rock, or key, not within the lawful jurisdiction of any other government, and not occupied by the citizens of any other government, and takes peaceable possession thereof, and occupies the same, such island, rock, or key may, at the discretion of the President, be considered as appertaining to the United States.[36]

That first Section of the law is an acknowledgment of the internationally acceptable principle of discoverability and claim of territory deemed *terra nullius*. As a result the application of the Guano Act has provided territory-like interests to the United States, riches in the form of the value of the private property that inures to the discover,[37] and great benefit to the American public in the form of a low cost agricultural pro-

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34. *Id.* at 865 ("The most important fact is however the existence of documentary evidence as to the taxation of the people of Miangas by the Dutch authorities.").

35. An Act to Authorize Protection to be Given to Citizens of the United States Who May Discover Deposits of Guano, 11 Stat. 119 (1856) (codified at 48 U.S.C. § 1411–1419 (2000)) [hereinafter Guano Act]. For more expansive historical contexts of the Guano Act see, e.g., JIMMY M. SKAGGS, THE GREAT GUANO RUSH: ENTREPRENEURS AND AMERICAN OVERSEAS EXPANSION (1994); Christina Duffy Burnett, *The Edges of Empire and the Limits of Sovereignty: American Guano Islands*, 57 AM. Q. 779 (2005).

36. 48 U.S.C. § 1411 (2000).

37. 48 U.S.C. § 1414 (2000) ("The discoverer . . . may be allowed, at the pleasure of Congress, the exclusive right of occupying such island, rocks, or keys, for the purpose of obtaining guano, and of selling and delivering the same . . . .").

duction input.[38] In the late nineteenth century the question regarding one guano island's jurisdictional status made its way to the U.S. Supreme Court. In *Jones v. United States*[39], the Court held that the Guano Act established sufficient jurisdiction over islands claimed in accordance with the Act so as to support criminal proceedings against defendants who killed managers of a guano-collecting enterprise. While the Court reached its ruling by way of the Guano Act, it suggested that the application of the Act created U.S. territory. A careful reading of the Act by at least one legal scholar, however, suggests that the Court's use of the term "territory" was erroneous.

In her thoughtful work examining the elements of sovereignty, territory, boundaries, and jurisdiction, Christina Duffy Burnett examines the territory issue. She suggests that, while the Guano Act conferred U.S. jurisdiction over such islands, it never held itself forth as a mechanism for claiming territory in the traditional temporal—i.e., perpetual—sense, since the Act itself never uses the term "territory." More importantly, the claim of use and jurisdiction under the Act is temporary in nature: such claims are suggested as valid only as long as the islands continue to provide guano.[40] Given that the circumstances supporting a claim of discovery giving rise to authority under the Guano Act also seem capable of supporting a claim of discovery giving rise to sovereignty, why would the United States choose the former and not the lesser claim? Professor Burnett suggests that the United States was only interested in the island as a guano source and that, once that utility ceased, the island was no longer of sufficient value for the United States to desire sovereign (seemingly perpetual) rights over the island, since it would be required to assume corollary responsibilities of occupation and protection.[41]

While guano may be the byproduct of a fugacious resource (bats and birds), the guano itself is less than fleeting once it lands. But some transient offshore resources have served as the vehicle for claims of property rights absent territory, chiefly fish and whales. And here is where Locke's observations have been employed and modified.

38. 48 U.S.C. § 1415 (2000) ("No guano shall be taken from any island, rock, or key mentioned in section 1411 of this title, except for the use of the citizens of the United States or of persons resident therein.").

39. Jones v. U.S., 137 U.S. 202, 211 (1890) ("[Such crimes] shall be held and deemed to have been done or committed on the high seas, on board a merchant ship or vessel belonging to the United States, and be punished according to the laws of the United States relating to such ships or vessels and offenses on the high seas; which laws, for the purposes aforesaid, are hereby extended to and over such islands, rocks or keys." (quoting Guano Act, *supra* note 35, § 3).

40. 48 U.S.C. § 1419 ("Nothing in this chapter contained shall be construed as obliging the United States to retain possession of the islands, rocks, or keys, after the guano shall have been removed from the same."); Burnett, *supra* note 35, at 785–86.

41. *See* Burnett, *supra* note 35, at 785.

B. *The Rule of Capture and Its Adaptation*

Over time, the rule of capture most famously articulated by Locke has been adapted to define ownership in a number of particular circumstances. In the United States, a few illustrations of such adaptations can be seen in case law and federal statutes.

1. Fish and Whales and Birds

Interestingly, long before Locke articulated his rule of capture principle, fishermen had been crossing oceans and employing the notion to a wide range of fishery resources. Mark Kurlanksy's book Cod, appropriately subtitled "a biography of the fish that changed the world," recounts the role that one species of fish (*Gadus morhua*) played in enticing Vikings and Europeans to risk their lives and cross the tempestuous North Atlantic to the shores of Greenland and North America.[42] John McPhee characterizes another species, the American Shad (*Alosa sapidissima*), as so important to eighteenth century Americans as to merit the appellation "The Founding Fish," in a book of the same title.[43] As long as fish have been plentiful they have, for the most part, confounded the concepts of territory by either existing wholly outside national claims of space or ignoring the boundaries by swimming in and out of such space. Historically, the commonly applied rule was that any such resources existing outside of a State's territorial boundaries belonged to no one (i.e., no title to them existed) until they were reduced to possession (i.e., captured) by anyone capable of doing so. Furthermore, the rule of capture as applied to fish operated even within a State's territorial space, albeit the range of potential capturers was limited to those with some right of access to the space/territory.

In the late nineteenth century, the rule of capture was examined, refined, and applied by a federal court, in a decision regarding ownership interest in a whale that washed up on a Cape Cod beach. In *Ghen v. Rich*,[44] the court was faced with a situation in which a whale struck and killed by a lance from Ghen's ship immediately sank and ultimately washed up on a nearby shore three days later. While Ghen had not completely reduced the whale to possession (i.e., had not perfected the capture), Cape Cod custom dictated that a whale washed up on shore and identifiably linked to the party that caused its demise would be deemed to be owned by that party, subject only to a salvage fee or reward due to

42. Mark Kurlansky, Cod: A Biography of the Fish that Changed the World (1997).

43. John McPhee, The Founding Fish (2002).

44. Ghen v. Rich, 8 F. 159 (D. Mass. 1881).

the party who ultimately stumbled upon the whale.[45] The case illustrates the adaptation of the "rule of capture" to suit the practical needs of industry.

The fact that fugacious resources may occupy one, then another, then no State's territory gives rise to important questions: first, what rights may a government apply to such resources and, more importantly, which level of government properly makes the decision? In *Missouri v. Holland*, the U.S. Supreme Court ruled that while a state might apply its laws and regulations to wildlife resources, that legal authority could be pre-empted via federal statute or international treaty obligation.[46] More importantly for purposes of this discussion, the Court dismissed the state's contention that it held title to migratory birds based on their presence within the state's territory, holding that while the state had certain jurisdiction over such birds while they visited the state, that jurisdiction was not based on title. The Court asserted,

> The State as we have intimated founds its claim of exclusive authority upon an assertion of title to migratory birds, an assertion that is embodied in statute. No doubt it is true that as between a State and its inhabitants the State may regulate the killing and sale of such birds, but it does not follow that its authority is exclusive of paramount powers. To put the claim of the State upon title is to lean upon a slender reed. Wild birds are not in the possession of anyone; and possession is the beginning of ownership. The whole foundation of the State's rights is the presence within their jurisdiction of birds that yesterday had not arrived, tomorrow may be in another State and in a week a thousand miles away.[47]

2. Problems with Offshore Boundary Lines and a Few Attempts to Solve Them

As stated above, territory is vital to claims of statehood and the land that constitutes territory is an enormously valuable resource that supports the people and economies of States. Territory in the traditional land sense lends itself to delineation by discernable boundary lines. From the fifteenth through the twentieth centuries, the ocean served as the means for the colonization of vast expanses of land and, accordingly, territorial expansion. But in the nineteenth and twentieth centuries nations began looking to the sea not as an avenue to access valuable terrestrial

45. *Id.* at 162. "The finder usually receives a small salvage for his services." *Id.* at 160.
46. Missouri v. Holland, 252 U.S. 416, 416 (1920).
47. *Id.* at 434.

resources but as a source of valuable resources unto itself. In doing so, they recognized that the key to developing these new resources lay not in traditional notions of land and territory but in principles of access and jurisdiction. Boundaries may be helpful in establishing ownership and sovereignty, but they are not comprehensive solutions. They are often incapable of containing the interests and values of States and economic endeavors: people move, fish swim, birds fly, water flows, and oil and gas seep and migrate.

3. Offshore Oil and Gas

Fish and whales are not the only migrating offshore resources upon which the United States has come to depend. In 2008, the United States domestically produced approximately one-third of the oil and roughly eighty percent of the natural gas it used. Much of these resources was extracted from offshore space, chiefly from the Gulf of Mexico. Two territory-authority issues worthy of note in this discussion are 1) the boundary line within the Gulf between the United States and Mexico in the Gulf; and, 2) the boundary lines within U.S. waters between state and federal submerged lands. Together they illustrate the desire for boundary lines in the sea and the management-related challenges that remain even when boundaries are clearly delineated.

III. The United States and Mexico in the Gulf of Mexico

As noted above, the United States played a seminal role in the development of the modern international law regime governing continental shelf claims. President Truman's proclamation included a prediction that advances in technology inevitably would lead to the increasing ability to extract offshore petroleum and mineral resources.[48] The claim also anticipated a day when U.S. continental shelf claims might be limited by competing claims of other States.[49] By the 1970s the respective claims of the United States and Mexico regarding authority over expanses of the Gulf of Mexico prompted the negotiation of a bilateral treaty that would establish a maritime boundary line between the two nations in the Gulf.[50] The treaty was signed by both nations in 1978. Mexico ratified the treaty

48. *See* Truman Proclamation, *supra* note 16, at 12,303 ("[W]ith modern technological progress [extraction of petroleum and mineral resources located beneath the continental shelf] is already practicable or will become so . . . .").

49. *Id.* ("In cases where the continental shelf extends to the shores of another State, or is shared with an adjacent State, the boundary shall be determined by the United States and the State concerned in accordance with equitable principles.").

50. *See* Treaty on Maritime Boundaries Between the United Mexican States and the United States of America, U.S.-Mex., May 4, 1978, S. EXEC. DOC. No. F, 96-1 (1978).

promptly, but the United States refrained from ratifying it until circumstances evolved to the point where doing so became economically important, i.e., when oil and gas developers were able to foresee that the far-offshore areas near the treaty boundary line would become economically viable.[51] When that happened, business interests testified before the U.S. Senate Committee on Foreign Relations for the need for ratification and the Senate agreed. The United States ratified the treaty on October 23, 1997.

That agreement in turn opened the door for a second treaty with Mexico regarding an area of the Gulf that would not be encompassed by either State's 200 mile claims, but which was effectively wedged between them—the "Western gap." Negotiations to delineate that area moved quickly and culminated in a treaty that Mexico and the United States signed and ratified in 2000 and which entered into force on January 17, 2001.[52] As a result, today we have a defined line, a defined gap, a defined line within the gap, and defined buffer zones on either side of that line within the gap within the Gulf. But, while the lines might lend comfort to those who appreciate the certainty of maps, one commentator suggests that the complex geology of a large expanse of the Gulf of Mexico and the migratory nature of oil and gas, warrants a more comprehensive, cooperative development agreement between the two States.[53]

A. *The United States and its Several States in the Gulf of Mexico*

Although U.S. developers are pushing deeper into U.S. federal waters and moving closer to the boundary lines with Mexico, they have not lost sight of the fact that valuable oil and gas reserves remain in nearer shore waters. A visit to coastal areas of Alabama, Louisiana, and Texas will bring oil rigs into view. These states benefit from the largesse provided by Congress via the Submerged Lands Act of 1953, which transferred economic and jurisdictional interests related to nearshore submerged lands to the states.[54] In most cases states acquired an ocean

51. John A. Duff, *U.S. Ratifies Maritime Boundary Treaty with Mexico*, 17:4 WATER LOG 1 (1997).

52. Treaty Between the Government of the United States of America and the Government of the United Mexican States on the Delimitation of the Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles, U.S.-Mex., June 9, 2000, S. TREATY DOC. NO. 106–39 [hereinafter Western Gap Agreement]; *see also* 146 CONG. REC. 23,077 (2000) (Senate advice and consent statement).

53. For a thoughtful article on this issue, see Richard J. McLaughlin, *Hydrocarbon Development in the Ultra-Deepwater Boundary Region of the Gulf of Mexico: Time to Reexamine a Comprehensive U.S.-Mexico Cooperative Agreement*, 39 OCEAN DEV. & INT'L L. 1 (2008).

54. Submerged Lands Act, 43 U.S.C. §§ 1301–1315 (2000).

expanse extending three nautical miles from shore. Texas and Florida acquired three marine leagues or approximately nine nautical miles due to their unique circumstances leading to their admission to the Union.[55] As a result, offshore wells tapping into oil and gas fields may be situated in state or federal waters, depending on where the oil and gas are.

When the oil and gas fields are situated such that they straddle the state-federal boundary, either the state or the federal government may lease out the lands above the resources to accommodate drilling. However, a drill situated at one point above the resource, for example on the federal side, is capable of depleting a substantial portion of the straddling resource. Employment of the rule of capture supports the driller's claim to the resource, even at the seemingly inequitable expense of those on the non-drilling side (or the state). Thus a state facing such a situation would be economically motivated to lease out quickly areas in its jurisdiction, so as to ensure that the value of the resources would be exploited before they were drained away to the other side. The scenario could escalate and quickly lead to overcapitalization, an inefficient and likely unsightly result. Boundaries do not solve the problem in such a case, they merely illustrate the problem. The solution, as becomes clear when boundaries fail to address a problem, is an assemblage-oriented agreement or a cooperative arrangement.

IV. Moving from Territory to Assemblages

> **as-sem-blage** *n.* 1.a. The act of assembling. b. The state of being assembled. 2. A collection of people or things. 3. A fitting together of parts, as of a machine.[56]

The concept of assemblages serves as an organizing principle for this section and the selection of that term stems from a general as well as a specific application of its use. A rather general definition of the term found in the dictionary is the concept that Saskia Sassen employs in her book entitled Territory, Authority, Rights: From Medieval to Global Assemblages.[57] In Dr. Sassen's work, the assemblage concept focuses on how territory, authority, and rights have been aggregated to form the foundations of nation-states during the Late Middle Ages and how they

55. *Id.* § 1312; *see also* United States v. Louisiana, 363 U.S. 1 (1960) (holding that Texas' and Florida's claims of three marine leagues into the Gulf of Mexico were valid in light of the conditions under which they entered the Union).

56. The American Heritage Dictionary of the English Language 79 (William Morris ed., American Heritage Publishing Co. 1973) (1969).

57. Saskia Sassen, Territory, Authority, Rights: From Medieval to Global Assemblages (2006).

are often assembled in our present era to serve as the foundation for global systems supported and enabled by nation-states "that require neither territoriality nor exclusivity."[58]

But the term is also used in a narrower sense by ecologists and natural resource managers to describe some group of biological organisms and/or physical habitat structures that occupy the same space and time such that they ought to be considered and managed with an understanding of those relationships and simultaneities.[59] And an interesting overlap between those two uses of the term can be seen in principles of law and the evolution of claims of title and jurisdiction over offshore resources that reside in whole or in part beyond areas ordinarily considered state territory. As a parallel to that contention, boundary-spanning stewardship of marine ecosystem assemblages is likely to be similarly supported and enabled by assembling various governing units, which individually would be incapable of effective management at the appropriate scale.

Professor McDorman's articles and books over the years, along with his contribution to this Symposium, have highlighted assemblages of state and private interests that have led to cooperative fishing arrangements, particularly between the United States and Canada. In addition to such U.S.-Canada cooperative (or as I have labeled them "assemblage-oriented") efforts, a U.S. domestic fishery assemblage arrangement exists in the form of the delegation of federal authority to the state of Massachusetts over fishing in federal waters located in Nantucket Sound,[60] not due to any lack of boundary definition, but because when the boundary is viewed and the resource assemblage within it considered, delegation of authority to the state makes sense.

I would add that some of the other offshore resources referred to above in this contribution highlight a range of other assemblages tailored to address the national governance and private utilization desires of state and commercial actors. The Guano Act, while arguably obsolete, is an early example where territory and sovereignty were not sought. As a result, the statute was designed to exert a claim of jurisdiction temporary

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58. *Id.* at 19–21.

59. The ecological use of the term can be found in a variety of regulations and is explicitly used by Congress in the "Findings" section of the National Marine Sanctuaries Act. *See* 16 U.S.C. § 1431(a)(4) (2000) ("[T]he National Marine Sanctuary System will . . . maintain for future generations the habitat, and ecological services, of the natural *assemblage* of living resources that inhabit these areas.") (emphasis added).

60. 16 U.S.C. § 1856(a)(2) (2006) ("For the purposes of this chapter, except as provided in subsection (b) of this section, the jurisdiction and authority of a State shall extend . . . with respect to the body of water commonly known as Nantucket Sound, to the pocket of water west of the seventieth meridian west of Greenwich.").

in nature and limited in scope.[61] The U.S.-Mexico treaties regarding maritime boundaries in the Gulf of Mexico acknowledge and set the stage for a solution to the shortcomings of such boundaries when resources straddle boundary lines. According to President William Clinton's transmittal letter accompanying the "Western Gap" agreement, "[t]he Treaty also establishes procedures for addressing the possibility of oil and gas reservoirs that extend across the continental shelf boundary."[62]

And even when oil and gas resources exist exclusively within U.S. jurisdiction, they may below or near federal-state boundaries, which has prompted the U.S. federal government to fashion a number of compensation arrangements to reduce or eliminate threats of overcapitalization. Through these agreements, states receive royalty payments from energy production operations that result from oil and gas fields that straddle the federal-state boundary or are relatively proximate to the state boundary.[63] Such assemblage-oriented arrangements acknowledge the transboundary nature of the resource, anticipate the threat of multiple authorities providing access in an uncoordinated manner, and fashion management mechanisms to reduce or eliminate such threats.

CONCLUSION

Until the late twentieth century the vast expanse of the planet's ocean space was unregulated, unoccupied by human endeavor, and decidedly un-territorial in nature. As noted above, the fact that certain valuable offshore resources exist beyond the territorial boundaries of a State may frustrate the advantageous use or responsible management of those resources. Nonetheless the history of laws applicable to these types of extra-territorial, unowned, or unused resources indicates that they indeed can be claimed via projected authority, exploited via diligent labor, and in certain circumstances effectively colonized, i.e., occupied and

61. 48 U.S.C. § 1417 (2000) (treating guano islnads as high seas areas or U.S. vessels on high seas rather than as territory of the U.S. for criminal jurisdiction purposes); 48 U.S.C. § 1419 (2000) ("[The] United States [is not obliged] to retain possession of the islands."). Additional challenges arise when the employment of a statute, ostensibly temporary in terms of its jurisdictional claim, becomes seemingly permanent, as in the case of Navassa Island, which is still claimed by the United States but for very different purposes. *See* CIA-World Factbook—Haiti, https://www.cia.gov/library/publications/the-world-factbook/geos/HA.html (last visited June 8, 2009) (acknowledging the dispute over Navassa); *see also* Fabio Spadi, *Navassa: Legal Nightmares in a Biological Heaven?*, IBRU BOUNDARY & SECURITY BULL., Autumn 2001, at 115, 125 (suggesting Haiti's claim has equivalent merit to U.S. claims over Navassa).

62. Letter of Transmittal from President William J. Clinton, to the U.S. Senate, at III (July 27, 2000) *reprinted in* Western Gap Agreement, *supra* note 52.

63. *See* 43 U.S.C. § 1337 (2000).

exploited, by a State or its nationals. The Truman Proclamation of 1945 placed the world on notice that the United States was projecting its authority over continental shelf areas based on geologic, practical and Lockean principles. The geologic principle was that such areas were "extension[s] of the land mass of the coastal nation and naturally appurtenant to it."[64] The practical tenet existed in the fact that the resources therein/under included "seaward extension[s] of a pool or deposit lying within the territory."[65] And the Lockean rationale could be seen in the portion of the claim highlighting the need for recognized jurisdiction to accommodate "prudent utilization" of such resources.[66]

The above-mentioned examples highlight the fact that "prudent utilization" of marine resources will depend upon management efforts that can transcend notions of territory and boundary.

64. Truman Proclamation, *supra* note 16, at 12,303.
65. *Id.*
66. *Id.*