Marine Protected Areas and the Territorialization of the Oceans in the Exumas, Bahamas

Dissertation

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Abstract

Marine Protected Areas (MPAs) are an increasingly popular conservation strategy that seeks to protect oceans from over-exploitation of fisheries by setting aside large spaces as reserves. While they are similar to conservation areas on the land in design and implementation, little research has examined the ways that MPAs change the ocean into a contested political space. In contrast to the historical perspective of the ocean as a weakly territorialized space in which conservation can occur with little resistance, this dissertation examines MPAs as an object that needs to be examined through the concept of territoriality. The dissertation develops a theory of territorialization as practice to analyze the process of MPA formation in the Exumas Islands in the Bahamas. The Exumas are slated to have three no-take Marine Protected Areas as part of a wider plan to set aside twenty percent of the ocean in the Bahamas. Drawing on archival and field research such as interviews and participant observation, the central argument is that MPAs are territorializing objects, and that the ways in which they are deployed can offer political possibilities for either resistance or new expressions of state power. The dissertation first analyzes three existing approaches commonly used to explain and/or justify MPAs, but finds that these explanations are wanting. It then interrogates the ways in which policy actors in the Bahamas deploy specific spatial imaginaries that frame marine conservation. It shows that policy actors are dependent on logics of state territory
and natural resource management that do not fully account for resource users. Finally, the dissertation turns to the fishers of the Exuma Cays, to record both their spatial imaginaries and the ways they relate to ocean conservation as it has been imposed in places they use for their livelihoods. It becomes clear that the people of the Exuma Cays are responding to the threat of MPAs in ways that resist the conventional logic of MPA design through a variety of tactics, including declarations of local identity tied to local oceans and practices, and actively transgressing conservation spaces in a territorial fashion. Yet rather than defending a pre-existing territory, what is occurring in Exuma is in response to conservation practice. New territorial claims are being made in response to the threats of withdrawal posed by MPAs, suggesting that territoriality, as a political practice, should be considered as a social factor in conservation efforts. Through examining the logics and spatial imaginaries of MPAs, this dissertation breaks new ground regarding conservation practice to show that setting aside tracts of the ocean as MPAs is not a simple solution to the problem of overfishing. In short, MPAs are not innocent conservation programs, but rather use specific logics to territorialize the ocean in ways that exclude local resource users while protecting the economic interests of the nation-state. These territorializations are then resisted through re-territorializations by stakeholders, who deploy different logics and spatial imaginaries. Through these re-territorializations, there is the potential for a libratory politics that can contribute to local self-governance and possibly change the politics of marine conservation.
Dedication

To the people of Exuma, without whom, none of this would be possible.

And to Gwynyth and Zedechiah, who gave me the time to make it possible.
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Table of Contents

Abstract ............................................................................................................................................... ii
Dedication ........................................................................................................................................ iv
Acknowledgements ........................................................................................................................... v
Vita ....................................................................................................................................................... vi
List of Figures ....................................................................................................................................... viii
Chapter 1: Introduction to the Study ................................................................................................. 1
Chapter 2: Conceptual Framework, Research Objectives, Methods, and Activities ......................... 26
Chapter 3: What is a Marine Protected Area? .................................................................................... 45
Chapter 4: The Significance of Territorialization .............................................................................. 85
Chapter 5: Policy Actors in the Bahamian Context ......................................................................... 130
Chapter 6: Fishers and Their Responses to Conservation Policy .................................................... 175
Chapter 7: Conclusions: MPAs as Re-territorializing Assemblages ................................................. 228
References .......................................................................................................................................... 252
Appendix A: Survey Instrument- Fishers ......................................................................................... 264
Appendix B: Survey Instrument- Policy Actors ............................................................................... 267
Appendix C: Preliminary Findings ..................................................................................................... 268
List of Figures

Figure 1: The Bahamas ........................................................................................................... 6
Figure 2: Proposed MPAs .................................................................................................... 19
Figure 3: The Bellman’s Map ............................................................................................... 64
Figure 4: MPA as Policed Territory ...................................................................................... 123
Figure 5: MPA as an Overwriting Territorialization ............................................................ 125
Figure 6: MPA as Local Re-territorialization ....................................................................... 126
Figure 7: Bahamian Fish Trap ............................................................................................... 164
Figure 8: Inter-Species Ecology in Action in the Exumas ..................................................... 178
Figure 9: The Mosstown MPA ............................................................................................. 181
Figure 10: A Typical Fishing Boat in the Exumas ................................................................. 186
Figure 11: The Lee Stocking Island MPA ............................................................................. 194
Figure 12: The Caribbean Marine Research Center ............................................................ 197
Figure 13: Black Rocks, as seen from Williamstown ............................................................ 212
Chapter 1: Introduction to the Study

This dissertation is about the territorialization of the ocean, and the role that a specific form of marine resource conservation plays in this process. My interest in this topic is not purely theoretical, as it has been driven by my 10 years studying responses to several proposed Marine Protected Areas (MPAs) within the Commonwealth of the Bahamas. However as my research has progressed, I moved away from my beginning interest in the ways that conservation upsets traditional fishing practices, into thinking about the ways in which conservation practice actually produces territorialized spaces, and the implications of thinking through conservation as a territorialized formation. As you shall see, this is not a small project, but one that I think offers a significant contribution to the ways in which conservation, as a project that has political implications, can be engaged.

Marine Protected Areas are a form of conservation practice similar to a terrestrial nature preserve, except established in the ocean. The proponents of MPAs cite them as a strategy that may be used to enhance biodiversity, alleviate fishing pressure, and increase fish abundance, all through the act of legislating the permissible activities within a bounded ocean space. MPAs can take many forms with different levels of access, from a marine park designed to attract tourists and yachters who are invited to snorkel and
anchor in designated areas, to a closed section of the sea in which all activities up to and including innocent passage are restricted. Regardless of the level of restriction of activities, all MPAs share in common the fact that they work to enclose a portion of the sea, from seabed to surface, within a regulatory framework that has enforceable rules. Because this enclosure transforms an area that has historically been governed through an open access regime into a closed space that is regulated by the state with the force of law, they can in fact be read as an extension of state territory.

Surprisingly little has been written about the territorial nature of MPAs, which is astonishing precisely because as a state withdrawal of a portion of the ocean, they serve to transform waters from the more weakly territorialized forms of ‘territorial waters’ or ‘exclusive economic zone’ into a strong state territory that will be also policed. Furthermore as I will show, this territorialization of the ocean created by instituting MPAs can also result in counter-claims that I describe as re-territorializations. The nature of these competing claims to control of the oceans present both a conundrum for well-intentioned people trying to protect natural resources, but also offer a new way of looking at the problem of how to conserve ocean resources in light of the permeable nature of any boundary in the ocean. While historically conservation has adopted a stance that sought to exclude people from spaces that are then reserved for “nature,” there is also growing support for the idea of traditional communities engaging in community-based management. In most cases, these are communities that have strong place based attachments and territorial claims to the management area. However, the concept of re-territorialization leaves open the possibility that communities, who become territorial in
response to the threat of removal of resources through conservation efforts, might in fact use this re-territorialization as a form of environmental politics. As this dissertation progresses, I will return to this question and suggest that consideration of the political struggles over territorialization might offer new approaches to the idea of community-based management, in ways that incorporate resistance from below outside of the commonly deployed Traditional Ecological Knowledge framework.

Many prior studies have addressed MPAs as objects in situ, with a tendency to conceptualize space as a way for people to meet their subsistence needs (Casimir 1992). This dissertation seeks to direct attention elsewhere through the consideration of territorialization as a spatialized tactic that asserts a power relation, which in turn calls forth people’s re-territorializing responses to marine conservation efforts. While some studies have used spatial technology over recent years to map areas of marine environmental conflict (c.f. Aswani and Lauer 2006), much of the research fails to interrogate how these spaces are conceived and idealized beyond a vague assertion of ‘tenure,’ and whether it is the perception of spaces, or the use of spaces (or some combination of the two), that leads to conflict. By deploying the theory of territorialization and investigating both the spatial practices and the perceptions of the spaces in question, this study will provide analysis that contributes to a more robust theory of environmental conflict.

Because the dominant paradigm perceives the ocean as an a-territorial space in need of territorialization, this study breaks new ground by asserting that in the case of conservation in the oceans, the overwriting of de facto and post facto territories, rather
than non-territorial spaces, contributes to conflict over conservation areas. While this study concentrates on MPAs as a special form of re-territorialization, it has the potential to contribute to the wider theorization of political ecology by using this case to suggest that perhaps all conservation and environmental conflict should be reappraised as a form of territorial overwriting, and also re-territorializing tactics of resistance. By examining the changes in human territoriality attendant with the creation of conservation areas and the way these changes contribute to the political ecology of conservation, it is hoped that conflict can be explained not only as an overwriting of the local by the global in a scalar shift, but also as a complex series of social relations that transform local spatial practices by exclusion, and also transformation of the perceptions and power relations across and between scales.

In sum, this dissertation analyzes the local effects of conservation policy by mobilizing a theory of territorialization in order to reconceptualize the power relations between and across scales as a spatially local phenomenon. These territorializations than interact with processes that incorporate other scales; further, it asks whether environmental conflicts can be driven and reinforced by conflicts over local spatial practices and re-territorializations (Mansfield 2001; Sack 1986). This study will ask if, and how, the efforts of the state and other conservation managers overwrite local forms of territorialization and spatial practices through the tactic of control over spaces, and how in so doing these tactics restructure local territorial formations and networks of power. I am hypothesizing that rather than reducing conflicts, when territorializations jump scales and in fact re-territorialize spaces, they can be seen to increase conflict, but
also provide political opportunity through counter-territorializations. This study moves beyond the mapping of spatial conflicts, towards an understanding of why conflicts over conservation must be understood as changing power relations that occur across spaces and scales, rather than as simply being conflicts over access, and the ways in which these tactics can restructure the politics in productive ways.

The Bahamian Context

The Bahamas are an archipelagic nation that stretches across the Caribbean Sea, from approximately 20-28° N. in latitude, and 72-80° W. in longitude. There is approximately 10,000 km² of landmass made up of islands, cays, and rocks that have 3542 km of coastline within a 13,880 km² territory (Central Intelligence Agency 2011). In pre-Columbian times, archaeology shows that a group known as the Lucayans inhabited the islands and cays that make up the Bahamas for approximately 400-800 years. After the arrival of Columbus in the Bahamas in 1492, the population was rapidly depleted for use as slave labor on Hispaniola, and it is suggested that the Bahamas were largely uninhabited with the exception of pirates for the next 150 years (Craton and Saunders 1999). In 1718, the British Navy declared the pirates to have been eliminated from the Bahamas, and established a military outpost on the island of Nassau. While there were some attempts to settle in the Bahamas prior to 1783, such as a group of Puritans known as the Eleutheran Adventurers in the mid-17th century, many of the people in the Bahamas today trace their ancestry to the aftermath of the American Revolution. In 1783, the British Crown gave land grants in the Bahamas to Loyalists...
fleeing from the rebels in the north, and many in the Bahamas trace their lineage to these events.

Figure 1: The Bahamas. The Island of Great Exuma is in the center of the map.

The Loyalists attempted to establish plantation agriculture in the Bahamas, and brought with them a large slave population. However, the islands are largely carbonaceous and have very poor soils, which led to large-scale agricultural failure within 30 years. This combined with the elimination of the slave trade by Britain in 1807, and the manumission of all slaves in 1834, led to a mass return to Britain by most of the landholders by the end of slavery (Craton and Saunders 1999). While the slaves had long outnumbered their owners, this led to a large majority African population in many of the islands besides Nassau, as the slaves were left behind when their owners returned to Britain. In many cases, the deeds are still based on the original land grants, and descendents of former slaves are allowed to continue to live on the former plantation lands. These inhabitants do not have exclusive titles to their land, and instead are communally owned as “Generation Land” that affords claims of the right to occupancy for all descendents of the original plantation slaves. In much of the nation the land has title disputes as property law depends on the disposition of Crown grants, and following independence, the conversion of Crown Land into private property. This abandoned African population was further enhanced by the practice of British Naval interdiction against US bound slave ships after 1807. If a slave ship were captured, it would be taken to an outlying island, the human cargo would be released as freemen, and the ship scuttled (Craton and Saunders 1998). While the African population of the Bahamas can all claim part of the history of the slave trade, those without Generation Land find themselves without the ability to own land except through fee-simple title.
The Bahamas were held as British territory until the late 20th century. In 1964, they were granted internal rule, and in 1973 they were granted full independence, yet as a member of the Commonwealth. Historically, the nation had the protection of the British Navy, but since independence they maintain a small defense force, and have no military complex other than this. As a member of the Commonwealth, the titular head of state is the Queen of England, whose interests are represented by a Governor General appointed by the Prime Minister. The Prime Minister is the head of government, and while they have a two party parliamentary system, it is worth noting that the heads of both parties are also law partners in a Nassau firm. Constitutionally, they are a Christian nation, which means that while their system of government is based on the Westminster system, they may pass no laws in contradiction with the teachings of the Bible, although with large populations that are part of the Baptist tradition, and a government that is headed by Anglicans, there is friction as to what exactly this means. In some ways, their governance is very much based on the British common law system, yet the application of law is often very uneven due to the geographic distribution of the population.

The majority of the nation’s population lives on the island of New Providence, which has a single large metropolitan area composed of Nassau and several smaller communities. Approximately 248,000 of the nation’s estimated 313,000 people live in this single urban aggregation in the northern Bahamas, with another estimated 46,000 people living on the island of Grand Bahama. This is an African descended majority population (85%), with the remainder made up of Anglos (12%) and people of Asian descent (Central Intelligence Agency 2011). While there is little racism in the country,
there is a tendency in some of the “Family Islands”\(^2\) away from Nassau to refer to British ex-patriots as foreigners, even if they have Bahamian citizenship.

The economy is based largely on tourism, contributing to approximately 60% of the GDP. The financial sector contributes another 36% to the GDP, with the remainder made up of smaller industries such as fisheries (Central Intelligence Agency 2011). Because of the large amounts of money exchanged in both the tourist and financial industries, the Bahamas appears to have the third largest GDP in the western hemisphere, and is considered by the neoliberal think-tank the Heritage Foundation to be the 46\(^{th}\) most free country in the world in part due to their embracing of these industries. However, while they report a high GDP per capita and a low poverty rate, many people in the outer islands live close to the margin. Nassau has many slums, and is currently facing a growing violent crime rate, perhaps exacerbated by the decline of both the tourist and the financial industries, leading to a growing population that finds itself without enough. This dissertation is primarily focused on one such group of people, the fishers of the Exumas.

The Exumas in Context

The Exumas are an administrative district in the archipelago of the Bahamas consisting of over 360 islands and cays and a total of approximately 250 km\(^2\) of landmass, with a present population of over 7300 people (up from an estimate of 3600 at

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\(^2\) In general, either the old term “out islands,” or the neologism “Family Islands” refers to the islands other than New Providence, which holds approximately 70% of the national population. This latter term is a response to the fact that inhabited islands outside of the core are part of the Bahamas ‘family,’ but have different histories due to relative isolation, even in the present day. Yet nonetheless, they are still ‘family.’
the time of my initial research efforts in 2001). While there is some commercial fishing activity in the Exumas, notably for the Caribbean Spiny Lobster (*Panulirus argus*), the lack of a packinghouse or a fish market means that much of the fishery activity is for personal use or local trade. Until the opening of the Four Season’s Emerald Bay Resort in 2003, the dominant Bahamian economic input of tourism was limited in the Exumas predominantly to yachters, leading to a limited cash economy. The Exumas were chosen as a study area because in 1999 a proposal was created that would establish three no-take Marine Protected Areas (MPAs) in the Exumas, in addition to the oldest Marine Park in the world, the Exuma Cays Land and Sea Park (Stoner, Hixon, and Dahlgren 1999).

While the MPA proposal included an economic variable, this variable was based on impacts caused by losing commercial fishing, meaning the Exumas were ranked low for this measure. However, most people in Exuma either fish, or receive fish from their neighbors daily through an informal economy. In some parts of the Exumas, people interviewed recounted how cash exchange was a recent introduction (as late as 1986 in the settlement of Barratarre). During my first few field seasons in 2001-2003, cash was still difficult to come by for purposes such as making change. This shortage of money for exchange has resulted in a large informal economy in which barter of goods or services has allowed people to meet their subsistence needs, as well as informal credit arrangements. Over the last three decades, the Commonwealth has made an effort to incorporate the “Family Islands” of the Bahamas through economic and infrastructure development, and older residents frequently complain that this progress is destroying their historic lifeways and communities. There is some evidence that some of these
development projects have helped by introducing a wider range of economic opportunities, but with uneven participation.

The Exuma Cays Land and Sea Park (ECLSP) was established in 1958. Parks are governed by the Bahamas National Trust, a quasi-governmental agency created by statute, but administered by a non-governmental board of directors who received the legal control over the ECLSP in 1964 (Mascia 2000). In 1985 the ECLSP was declared to be a protected replenishment zone, and fishing activities were restricted. This replaced the previous rules in which residents and yachters were permitted to fish for subsistence. However permits for fishing were granted to the caretakers of homes within the boundaries of the park. The rules which allowed tourists and private homeowners to fish within the park prior to 1985 has led to the popular view among many people whom I interviewed, that the park was created as a private fishing reserve for wealthy foreign nationals. A number of the residents of the Exumas cite 1996, the first year the Royal Bahamian Defense Force was deployed within the boundaries of the park, as the first time the ban on all fishing activity was enforced. While the records of the Bahamas National Trust suggest that their wardens enforced the rules equally after the 1985 rule, Mascia (2000) points out that the Defense force was possibly considered a more legitimate enforcement force by local people than the white wardens employed by the BNT. The 1980s-1990s were also a period of increased foreign investment in the Exumas, in the form of vacation homes, and the Crown sold a number of islands converting land that had been used in common to private use.
Enmeshed within this socio-historical context of conservation combined with the loss of land for development, the people of Exuma were confronted with a further loss of resources in 1999 when it was proposed to create three no-take marine reserves in the waters of the Exumas, near the mainland of Great Exuma. These MPAs transform a space previously viewed by the state and the people of the Bahamas as open access for Bahamian citizens into a network of limited access areas, simultaneously transforming people’s access to natural capital (Scoones 1998) and overwriting local territorial claims and understandings of resource availability. Local people have contested limited access in a variety of ways including letters to the editor, threats at public meetings, and statements from fishers that the policy will be ignored in practice.

The Context of the Exuma MPAs

While the MPAs in Exuma were approved by the Bahamian Department of Marine Resources, and accepted by Parliament, they are not in fact a Bahamian creation. Instead, these conservation areas are entangled with wider social relations that are informed by a specific set of logics. These entanglements include the politics of conservation that has been exported from the more developed world, the commitments of US based marine biologists, and the role of social science in conservation policy. These particular MPAs expose some of the ways that these entanglements overlook certain facets of planning conservation areas, and fail to account for the people who will be affected if they become enforced policy. Even when attempts are made to include people
through social science, as we shall see the failure to make the correct assumptions has led
to an analysis that cannot account for the effects of an MPA.

The story of this particular marine conservation project in the Bahamas begins in
November 1998, when a group of marine scientists, government officials, and
environmentalists gathered to try to strengthen a marine conservation agenda. As an
archipelagic nation with poor soils and few mineral resources, the oceans are a valuable
source of livelihood, and data on fisheries in the region suggested that some action was
needed to prevent declines in marine abundance similar to what had been seen in the
wider Caribbean (Stoner, Hixon, and Dahlgren 1999). The meeting was initiated by the
Bahamas Reef Ecological Education Foundation (BREEF) and led by a Marine scientist
who was the Director of the Caribbean Marine Research Center (CMRC) with the
explicit goal of promoting the need for Marine Protected Areas in the Bahamas. Based on
that workshop, and additional meetings with governmental agencies, a total of 39 sites
were proposed for scientific review, by a panel of outside experts who were trained in
marine biology. The result of this evaluation was to propose a network of 32 no-take
Marine Reserves within Bahamian waters.

Siting of this network of 32 MPAs in the Bahamas by Stoner, Hixon, and
Dahlgren (1999) used benthic habitat conditions as the determinate variable for MPA site
location. After appropriate sites were determined using ecological categories, the sites
were then weighted with three social variables. The social variables weighed the presence
of an established community, the loss of cash economic activity, and the category of
support for conservation. However, it appears that the social science in this case was
included as an add-on, a further metric the marine biologist authors of the report hoped would contribute to the success of creating a network of nature reserves. None of the social variables were fully ground-truthed, especially the community support variable (Dahlgren 2001) and over time, the proposal came under fire from numerous fronts, including the residents of the Exuma Islands and Cays, who were slated to have three new MPAs in their coastal waters.

As noted by Stoffle and Minnis (2007), while the MPA proposal in the Bahamas considered social indicators in the siting process, the authors of the proposal did not complete a locally appropriate Social Impact Assessment, and conflict has resulted. This critique can be extended by arguing that without consideration of the specific spatial, and historical, relationships that give context to the process (such as traditional fishing practices), the participants appear to talk about, rather than to each other. Failing to engage in conversation on common ground has created a divide within understandings of the MPA siting process that results in arguments about the nature of conservation, without allowing consultation to proceed (Stoffle and Minnis 2008). The theory of Social Impact Assessment suggests that the specific historical-spatial context of the Exumas needs to be accounted for in any policy process. Yet thus far, little work has been done regarding the ways that conservation projects produce territorialized spaces, nor the implications of such a finding in terms of “on the ground” political strategies.

The inclusion of social science in conservation proposals is intended to enhance the success of policy recommendations (National Research Council 2001). In this particular case, to determine whether a settlement would be impacted by an MPA, the
presence of commercial fishing industry was evaluated, but also not fully ground-truthed by the authors (Dahlgren 2001). The data regarding commercial fishery activity were collected from Department of Fisheries representatives and some local participants (Stoner, Hixon, and Dahlgren 1999). Additionally, aerial survey and knowledge of settlement activity from personal experience were also used in evaluating socioeconomic impacts (Dahlgren 2001). Despite inclusion of social variables within the siting process, as noted above, many of the proposed reserves throughout the Bahamas have met with resistance from nearby communities. The process of MPA creation within the Bahamas is not unique in the way it has been marked by these debates about how and where to implement the reserves (c.f. Dahlgren 2004; Neumann 1998).

Ongoing resistance has led to a call for better social science in the MPA design process in both a general and specific sense (Dahlgren 2004). While a number of follow-up studies have identified other social variables, such as more robust indicators of economic values, which might contribute to the success of the Bahamian conservation plan (c.f. Stoffle and Minnis 2007, 2008; Stoffle et al. 2008; Broad and Sanchirico 2008), in these studies spatial factors are usually reduced to proximity to an MPA. There is no consideration of the power relations in the spatial imaginaries deployed. The unit of proximity is highly localized, and therefore offers a thin description of the social relations regarding localized spaces and populations (Agrawal 2000). Later in this dissertation, I shall look at how competing imaginaries about how to regulate the ocean introduce claims that serve to territorialize and re-territorialize the spaces designated for conservation areas.
The politics of conservation of course also intersect with the ecological system, which in turn can affect the discursive practices of people in their claims. While the report by Stoner, Hixon, and Dahlgren (1999: 3) notes that the Bahamas are “still relatively unscathed,” there has been noticeable change in the availability of the three primary fishery targets in the Bahamas: Caribbean Spiny Lobster (*Panulirus argus*), Nassau Grouper (*Epinephelus striatus*) (Stoner, Hixon, and Dahlgren 1999: 3), and Queen Conch (*Strombus gigas*) (Chmara-Huff 2003). Data published in 2004 notes that the problem of declining fish stocks is not limited to the Caribbean, and notes that Caribbean ocean ecosystems are more complex and interdependent than previously thought (Sobel and Dahlgren 2004). More recent data for the Bahamas in specific suggest that biomass outside of existing conservation areas may be severely depleted (Mumby et al. 2006). In my interviews, fishers in 2009 and 2010 reported that they had extended their fishing ranges by as much as 40 miles over the past decade, suggesting a fishery in crisis that they would like to see protected in ways they deem acceptable.

Prior studies in the Exumas have argued that the resistance to MPAs in the Bahamas can be countered by properly “selling” the concept, and translating between different stakeholder groups that support some form of conservation. The debates are usually framed through a shifting of scales, such as the need for a national policy based on ecosystem science (Stoner, Hixon, and Dahlgren 1999; Stoffle et al. 2010), in counterpoint to local needs for access to resources (Stoffle and Minnis 2007, 2008). In essence, these debates are framed in a binary of top-down pro-nature vs. bottom-up pro-human design of conservation plans. Neither the top-down or bottom-up approach
interrogates the rationale of a conservation reserve itself; ecological reserves are posited as a stable thing that can be created “out there” to protect an easily damaged wilderness (Cronon 1995). This suggests that much of the debate appears to be about who should have territorial control of the reserves, rather than objections to conservation per se. I draw on prior work that has noted the ways in which fishery management has become a tactic of territorial control, either through the assertion of national territory (Mansfield 2001), or through the creation of private property regimes in the ocean (Mansfield 2004a, 2007a; Hannesson 2004). At the same time, I am interested in how debates about the right to territorialize the ocean can be raised that empower the people who will be most affected if the ocean is withdrawn.

While the initial Bahamian MPA proposal addresses questions about perceptions of ecosystem quality, potential economic benefits, and the presence of communities proximate to the reserves, there remain unanswered questions about how MPAs will alter pre-existing spatial practices and de facto territories, let alone the counter responses to MPAs as a territorialized object. Using the simple spatial unit of community overlooks the actual spatial practices of people; also overlooked is the wider political economy of resource use and claims (Sletto 2005). Research into the spatiality of fisheries of the northeastern US has shown that proximity is a poor indicator of where people fish (St. Martin 2001, 2006), and how people think space should be managed (Wickham and Zinn 2000). My fieldwork in the Bahamas suggests that these findings should apply to the case of Bahamian fisheries as well. Interviews with fishers in the Exumas in 2001-2005, and again in 2009-2010, suggest that there are identifiable places in the ocean that some
people fish, but others do not, and historically efforts are sometimes made to restrict outsiders from fishing. This data suggests that there are unanswered questions meriting further research. What forms of territoriality beyond a spatially fixed community are being disrupted when MPAs re-territorialize the sea? How do narrow conceptualizations of spatiality and territoriality, as deployed in current social science on MPAs, contribute to policy mismatch and conflict over conservation? How does a wider understanding of territoriality and spatiality, in which MPAs are a form of territorialized spatial production, provide better explanation of ongoing resistance to MPAs in the Bahamas?

Why the Exumas?

Reactions to the proposed MPAs in the Exumas were swift, and resulted in a variety of responses, which suggested that the area would be a good place to for social scientists to study responses to conservation proposals. In the southeast, on Little Exuma, fishers reported that they would be willing to support an MPA to protect spawning aggregations. In the northwest, people in Little Farmers Cay and Barratarre opposed an MPA proposed for Lee Stocking Island and adjacent cays. A third MPA, proposed to extend from Mosstown out to Jewfish Cay, on the south side of the island had yet to be formally announced in 2001 (see Figure 2). Richard Stoffle of the University of Arizona joined the Bahamas Biocomplexity Project (BBP) as leader of one of the social science teams funded by an NSF Biocomplexity Grant to study Traditional Ecological Knowledge in the Exumas.³

³ http://bbp.amnh.org/website/home.html
Figure 2: Approximate Locations of the Great Exuma MPAs and new Marine Park in the Central Bahamas. While the initial proposal has highly variable boundaries proposed, this image gives a non-cartographically accurate approximation of the areas under discussion in the dissertation. See Figure 1 for a reference map image that gives the location of Great Exuma District in the Bahamas.

Stoffle chose to focus his study on Exuma, on this basis that there were different levels of support expressed for MPAs at different locations within the Exumas, and hypothesized that cultural attachments to the sea could explain these differences. I was employed as a researcher on this project for a number of field seasons, interviewing the people of the Exumas about their quality of life, and traditional attachments to their
environment. While Stoffle’s published research has shown that people support conservation and do indeed have strong attachments to their environment (Stoffle and Minnis 2007, 2008; Stoffle et al. 2010), these studies were place specific, with little consideration of the how MPAs might introduce new spatial imaginaries that compete with the right of the sovereign to withdraw a portion of the ocean as a conservation area. Territory in this analysis was deployed as something that either pre-existed the MPA for local people, or else only resided with the state. The fact that fishers claimed during interviews not to have territory and supported conservation through MPAs, but objected to the idea that they would lose access to the local sea, led me to the question of what spatial imaginaries were being deployed in this seemingly contradictory position.

Much of the existing literature on conservation (terrestrial or marine) suggests that in order for conservation projects to succeed, negotiating the support of local people is essential (Pretty and Ward 2001; Stoffle et al. 2010; McCay and Jentoft 1998; Castro and Nielson 2001; National Research Council 2001; Elliott et al. 2001; Christie et al. 2003). While policy makers have started to include people in conservation decisions, a common criticism of existing approaches is that they put ecosystem variables first, and then add a limited number of social variables (Nietschmann 1997; Mehta and Kellert 1998; Stoffle et al. 2010). This means that significant social factors that contribute to conservation decision-making may be overlooked. Further, this is compounded by using a thin conception of ‘community’ (Agrawal and Gibson 1999; Agrawal 2000) that overlooks the complex social relations within and between communities and the larger socio-political world; these multi-scalar relations make it difficult to solve conservation
problems on a strictly localized scale. The field of Political Ecology, which suggests that ecological problems are always political problems, provides alternative ways of addressing these issues. From this perspective, we should attend to power relations and struggles over resources at a variety of scales, including analysis of interactions across scales (Gezon and Paulson 2005; Gardner 2005; Robbins 2004; Painter 2008). This allows for a thicker understanding of community and multiple identities (Paulson, Gezon, and Watts 2005).

Studies rooted in political ecology illustrate the local effects of uneven power relations, and show how different views of the environment are contested and/or internalized differently at different scales (Painter 2008; Sletto 2005). Political ecology draws on notions of space as relational, and directs our attention to linkages between the local, national, and global in explanations of environmental conflict. From this perspective, human territoriality is a product of relationships across scales, rather than discrete local or national agendas. Thus, human territoriality by necessity includes spatial practices that fall outside of conventional state-oriented models of territory (Sack 1986). Local territorializations and efforts to control access to resources can then be positioned in relation to state territorializations, leading to conflicts over the conservation of resources. In judging the effects of environmental policy by considering how people use their environments and the claims they make for continued access to and control of those resources, this study conceptualizes conservation policy as a power struggle over control of both resources and spaces. Rather than assuming a hierarchical power relation through which territory is created by the state with local effects, my research questions the ways
in which conservation becomes a struggle over control of resources that requires analysis of both local and state created conservation territories.

However, the complexity of ocean territoriality has rarely been addressed in existing social science on MPAs, which tends to focus narrowly on discrete social variables in order to create predictive models (Stoffle and Minnis 2007; Stoffle et al. 2008; National Research Council 2001; Broad and Sanchirico 2008), or addresses the development of global or national policy (Mansfield 2001; St. Martin 2006). The goals of this study are to add to the growing body of geographic political ecology literature by questioning what role, if any, local spatial imaginaries play in the conflicts that arise from the territorialization and re-territorializations produced by conservation and management efforts in the sea. This is in part based on my theoretical argument that territorialization as an active process is an important form of spatial partitioning and claiming. I will show that it is possible to explain one source of conflict over conservation areas by analyzing local spatial practices (what people do) and understandings of ocean space (peoples’ perceptions), and how these are displaced by the creation of an MPA, with a different set of spatial practices and understandings. Rather than assuming a non-territorial space open to territorialization, this dissertation will investigate if (and if so, how) MPAs re-territorialize the space of the ocean and both overwrite existing claims, and result in further re-territorializations.
Structure of the Dissertation

In sum, this dissertation is about the ways in which MPAs are a conservation tactic that produces multiple territorializations of the ocean. Approaches that have been used in the past, which ignore the struggles over the power in ocean spaces, provide an analysis that bears the assumptions of conservation practice, including ideas about the nature and necessary force of conservation spaces. By deploying a more robust theory of territorialization and how these particular conservation areas in the Exumas are set within specific spatial imaginaries, MPAs can be seen to become an object that deploys power relations with unintended, but possibly liberatory effects. As the people of the Exumas contest MPAs, they are also arguing for power over spaces where historically they have only enjoyed usufruct rights. If these claims were to be attended to, MPAs could be transformed into a very different sort of conservation object that changes the power relation from an assertion of the territorial state, into one that empowers local people to manage the resources on which they depend for survival.

The rest of the dissertation is laid out as follows: Chapter 2 outlines my conceptual framework, research methodology, and objectives. In Chapter 3, I will provide a more in depth analysis of the logic behind MPAs, and the ways that these conservation measures intersect with wider discourses about conservation in the ocean. Within this analysis, I also argue that the existing ways of comprehending MPAs, including approaches used by political ecologists, falls short of the mark, suggesting that we need to reconceptualize MPAs as a spatial object. MPAs are first and foremost a claim to the ocean and its resources, deployed in different ways by different actors.
Chapter 4 will provide a theoretical background to my reading of territorialization as a concept, and the way it is related to the concepts of territory and territoriality, and explain my argument that MPAs should be analyzed as territorialization. This chapter engages both a theoretical way of understanding territorialization, but also explicitly produces MPAs as a driver of territorialization and re-territorialization in ocean spaces.

Chapter 5 will provide an analysis of the ways that policy actors deploy MPAs as a spatial imaginary, using a critical standpoint. This chapter is based on my interactions with a number of policy actors active in the push for conservation areas in the Bahamas, and interrogates the assumptions and imaginaries they deploy when they create conservation policy and its associated tools. While there is a diversity of logics used to conceptualize MPA spaces, there is a strong tendency to defer to the state as the agent of these logics. Within Chapter 6, I turn my attention to the fishers of the Exumas, and analyze their responses to MPAs as a spatialized construct, and the ways that this too provokes territorialization. The fishers are responding to MPAs by making claims that counter-territorialize the ocean, as a form of political engagement and a claim to rights. While some of these claims are specifically on the local scale, there are also claims that jump to the national level that present an argument for widespread changes in the ways that policy is deployed in regards to marine resource use.

Finally, in Chapter 7, I will summarize the dissertation and synthesize the preceding chapters in order to show the ways in which the territorialization produced by MPAs in the ocean has resulted in further competing territorializations, rather than a stable territory per se. This has broad implications for thinking about the politics of
conservation in the oceans, and the ways that claims to control over conservation spaces could lead to a politics that truly includes people in a social science analysis that attends to their wider social relations.
Chapter 2: Conceptual Framework, Research Objectives, Methods, and Activities

I began my research in the Exumas as an undergraduate student, working under Dr. Richard Stoffle at the Bureau of Applied Research in Anthropology. At the time, Stoffle was studying the rejection of MPAs by the people in the Exumas, Bahamas using the twin hypotheses of strong place attachments, and of a cultural landscape in the sea. As a result, I spent several years conducting semi-structured interviews regarding people’s cultural attachments to the sea, and also historic, present, and predicted quality of life indicators, using a framework rooted in Traditional Ecological Knowledge (TEK) and cultural centrality (Stoffle et al. 2010). One of the surprising findings of this study was that despite a number of communities publically opposing the proposed MPAs, the vast majority of people interviewed offered either conditional or complete support for MPAs. While Stoffle et al. explained this finding as a result of cultural centrality and resource dependence, I am wary of this approach because it failed to include a robust theory of politics in explaining resistance. Instead, what was offered were concepts such as “safety zone” and “region of security” (Stoffle and Minnis 2008). While these are both spatial concepts, they are tied to resource dependence, and as spatial concepts they both fail to interrogate what these spatial constructs mean in terms of power and resistance. They are used as explanatory variables, yet without an explicit theory of what it means to
have spatial imaginaries that mark spaces out for people who are resisting a competing spatial imaginary.

While their most recent paper (Stoffle et al. 2010) asserts that modeling of MPAs should be done separately for social variables and ecological variables, this is an approach that separates politics from ‘nature’ and therefore avoids the questions of political ecology, political formations, and questions of power. The human versus ecological modeling scenario simultaneously creates a dualism between ecology and social relations, while attempting to also unify them with the idea of resource dependence. Nowhere is the idea of an MPA questioned for the work it does to create a state territory, which changes the power relations in the field of the ocean. Seeking to build on my earlier experiences working with Stoffle, but wanting to overcome some of the shortcomings I saw in the final analysis, I formulated a research design that explicitly incorporated the notion of power and how control of ocean spaces and resources is in fact a political project. I started with the theory of human territoriality (Sack 1986) as the basis for inquiry, and set out to design a study that would use this theory to interrogate whether or not MPAs as spatial objects come into conflicts with competing territorial claims. While my initial research questions were based on the notion of territorial overwriting, over time the nature of the investigation changed into an interrogation of territorialization as an active process at play in the oceans around the Exumas.

I created a research proposal to study the territoriality that might be in play in the Exumas, and submitted it to the National Science Foundation as a Doctoral Dissertation Research Improvement Grant. This proposal was funded in the August of 2009 (NSF
DDRI #0927821), and fieldwork commenced later that month. The approach I took was to specifically question both fishers and policy actors who had a stake in the MPAs in the Exumas as to what their spatial imaginaries were, in order to analyze the ways in which MPAs, as a withdrawal created by state power, overwrite other spatial imaginaries that offer competing visions of how the spaces in question should be controlled.

**Conceptual Framework**

I began with two conceptual approaches to frame my research on MPAs in the Bahamas: human territoriality (Sack 1986) in tandem with the theorization of territory as an object, and a political ecology framework (Robbins 2004). These approaches make it possible to ask about and analyze ways MPAs reconfigure both spaces and struggles over control of resources, and ways in which conservation areas change the nature of territorial control.

**Territorialization**- Territory is often theorized as an aspect of the state that gives rise to sovereignty through the control of spaces (Kuus and Agnew 2008; Sack 1986). However, Sack (1986) suggested that a more robust theory of human territoriality includes not only de jure territorial formations, but also de facto territorial formations such as usufruct claims (see also Delaney 2005). Sack defines territoriality as “the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by asserting and delimiting control over a geographic area” (1986, 19). This broader definition draws attention to the fact that territory is not always a form of juridical control, nor is it a biological concept (Delaney 2005). Studies in environmental
psychology have suggested that human territoriality has an emotional component that is difficult to quantify, but closely related to the concept of place-attachment (Wickham and Zinn 2000). Therefore, while MPAs are a form of juridical territorial assertion by the state, there are potentially other forms of territoriality at work in the same spaces, which could produce re-territorializations.

The effects of marine conservation as territorialization have been addressed to some degree within the MPA literature, which notes that reserves have been contested due to a “fencing of the sea” (National Research Council 2001; Steinberg 2001; Mansfield 2004a). Yet much of the concern over this fencing of the sea assumes that the spaces in question have no prior territorial claims. The ocean has long been viewed as non-territorial space (Steinberg 2001), especially before the adoption of the UN Convention on Law of the Sea (UNCLOS) in 1982 (Glassner 1990). As a non-territorial space, the ocean has been conceptualized as an open access commons (Gordon 1954). In contrast, geographical scholarship on marine management suggests that the process of managing a resource encloses the space of the oceans to give territorial control to the state (Mansfield 2001, 2004a) in ways that transform the access rights of users of a common resource, often with little consideration of how fishers spatially practice extraction of marine resources (St. Martin 2001, 2006). In the Bahamian case, this suggests that local people would have portions of the sea to which they have an extra-legal territorial claim that is being overwritten by the juridically territorial effects of MPAs. The possible existence of such claims has not been accounted for in prior analysis.
This dissertation is designed to address this concern while also bringing a more robust theorization of human territorialization to the marine conservation literature, within Chapter 4. By theorizing territory and the control of the ocean beyond state formations (Painter 2008; Sack 1986; Delaney 2005), one can ask what forms of human spatial practice and claims are in play in any locale, including the marine environment, and how these spatial claims affect social relations (Painter 2008). The research examines ways in which MPAs reconfigure the spatial relations of the Bahamas and create new territorialized relations that have no historical precedent within the nation-state. These territorializations also overwrite other forms of territoriality and customary use, provoking further territorialization as a response from below. Rather than positing an ‘empty’ space in which MPAs assert a juridical property relation, this study suggests that the ocean, similar to land, was already territorialized prior to the implementation of MPAs, and will continue to be further territorialized as a response to conservation.

**Political Ecology**- Political ecology provides a framework to examine the interrelation between social and natural systems (Robbins 2004). It replaces the notion of an external environment to be protected from humans with the idea that all environments are both social and natural. It also emphasizes that local environments are formed within wider networks of power and economic conditions. These political processes shape access to resources through a variety of means, including territorial formations. MPAs then, are not simply state-led fencing of resources (fish) from extractors (local fishers), but are part of a wider network of social relations and actors that in effect also create the perceived need for conservation areas. From this perspective, the question of ideal
placement of conservation areas is too narrow; one should instead examine how conservation works to change access to resources through networks of power—yet it is precisely this that has been missing in prior research into the MPA creation process in the Exumas.

Numerous scholars have pointed to the ways in which resource management relies on simplified social models operating under the rubric of the tragedy of the commons (Holm 1999; Agrawal 2001; Ostrom 2003; McCay and Acheson 1987; Johnson 2004; Mansfield 2004a). As noted by St. Martin (2001), in marine conservation there is an inherent assumption that the presence of people will cause the eventual degradation of the ecosystem due to a lack of self-control. However, a large body of scholarship shows that “the commons” are often mis-specified and that a true commons is actively managed, in part through territorial claims to common spaces and social rules for the use of the commons (Agrawal 2001; Ostrom 2003; Holm 1999; McCay 1987; Johnson 2004). Yet, even this literature offers little in the way of analysis of conservation reserves and the attendant territorialization of spaces; further, it fails to acknowledge the construction of territory as a tactic of power (Mansfield 2004; Neumann 1998).

Specifically, the accepted literature on the conservation of marine resources tends to be oriented towards management of fishers and fish in order to increase biodiversity. This literature offers a thin treatment of both the nature of the spaces of conservation, and power relations in the conservation process (c.f. Rogers and Beets 2001; Roberts et al. 2001). Similarly, it has been argued that this analysis offers a thin treatment of nature that is devoid of people (Pannell 1996), and fails to recognize fisheries as both social and
natural (Johnsen et al. 2004). By drawing on political ecology, this dissertation seeks to
address the ways in which the fishery has been shaped by policy that completely ignores
the manifestation of power in the creation of conservation areas. Rather than treat the
Bahamian fishery as a ‘fugitive resource’ that needs to be managed against extraction,
this study uses political ecology to focus on the political and economic factors that have
worked together to create a networked assemblage of resources, stakeholders, managers
and policies that in turn reify the Bahamian fishery as a spatially localized object, prone
to crisis and unsustainable extraction (Holm 1999; Young 2001). Using political ecology
as a framework enables an examination of how MPAs are but one element in a wider
political economy, rather than assuming that the reserves function to maintain or
replenish an “apolitical ecology” (Robbins 2004) that has been damaged by people.
Focusing on the wider political economy means attending to power relations
across multiple scales, and how these global, national and local relations affect peoples’
ability to use their environment (Gezon and Paulson 2005). Conservation practice is
always negotiated through various actors operating across different scales (Robbins 2004;
Agrawal 2005; Novellino 2004), and such policy negotiation results in different
subjectivities, identities, and meanings (Sletto 2005). Thus, my analysis focuses on how
heterogeneous scales work together to produce uniquely local effects and understandings
(Massey 1993; Agrawal 2005; Swyngedouw 1997). Especially important is to explore
ways in which a territorializing policy produces dominant understandings that then
conceal other social understandings and uses of space (Adger et al. 2001). I use the lens
of political ecology to explore how MPAs in the Bahamas draw on national and global

32


concepts to attempt to overwrite local territorializations. At the same time, I attend to the ways in which conflict can be explained not only as an overwriting of the local by the global in a scalar shift, but also as complex series of social relations that transform local spatial practices and perceptions.

**Research Objectives and Questions**

When I began my fieldwork in 2009, my overarching concern was about whether, through marine conservation efforts, ocean space comes to be territorialized by powerful actors, and how such territorialization needs to be accounted for when planning for marine conservation. As the research and analysis progressed, the direction of my research changed, but before I describe that, I want to start with my initial research intentions. I was interested in how it is that MPAs come to be a contested spatial object in a space that has historically been assumed to have no territorial claims beyond the state, and whether this assumption is false. To address this overarching concern, I divided the research into three specific questions:

1) Do local fishers make claims to de facto territories that are then overwritten by conservation areas, and if such territories exist, where are they, and how are they conceptualized?

2) What are the understandings of ocean space held by other actors in the MPA creation process, and do they contribute to conflict over conservation; if so, in what ways?

3) Do MPAs change both local spatial practices and territorial claims, differing from historical practices and claims, and if so how do they change?

The study was conceived to better understand overlapping territorial practices, both to help explain ongoing resistance to MPAs in the Bahamas, and to provide
knowledge for improved conservation strategies. I assumed that I would find that part of the reasoning behind resistance from the people of the Exumas was due to preexisting de facto territorial claims. In particular, I assumed that my research would contribute new knowledge regarding political ecology of the oceans by analyzing how the unique historical understanding of ocean spaces as a-territorial, rather than territorialized spaces, makes the debates about marine conservation differ from conservation efforts on the land. By challenging the notion of a-territoriality, I wanted to focus new attention on local de facto territorial practices, while also showing how the notion of a-territoriality has shaped dominant approaches to marine conservation.

However, the finding of de facto territories proved to be elusive. Towards the end of the 2009 field season, I wrote in my field notes, “ Territory is not the issue here, this is a problem of territorialization.” With this realization, I adjusted my research objectives and questions for the second round of fieldwork. I turned my attention to the ways in which the MPAs were consistently deployed as a territorial object with assumptions about environmental governance, and the ways that fishers resisted this hegemonic spatial imaginary and countered with alternative spatial imaginaries that evoked different territorializations as an assertion of local power. This required adjustments in method (see below), but offered more fruitful data than simply trying to find competing territorial formations. By changing my objectives and questions to territorialization as an iterative process, I was able to draw out the ways in which multiple claims to access and control are involved in the debates about MPAs in the Bahamas.
Study Sites

To answer my questions regarding how MPAs territorialize Bahamian ocean space, I made two research trips in the summers of 2009 and 2010 to Great Exuma and Nassau, Bahamas to gather evidence as to the existing forms of territorial claims in the ocean near three Bahamian MPAs, both presently and in the past. Because of previous years of experience within the so-called "family-islands" of the Bahamas, I chose to work again with five of the communities that were studied in 2001-2006 while working with Dr. Stoffle, split into three regions (Little Farmers Cay from the original study was excluded, but I returned to Barratarre in the west, Mosstown and The Hermitage in central Exuma, Williamstown and The Ferry in eastern Exuma). These communities are fairly close together and were accessible from my lodging via a short drive on the Exuma mainland. These settlements have all been previously studied as impacted communities due to the proximity of three new MPAs nearby (Stoner, Hixon, and Dahlgren 1999; Stoffle et al. 2010; Stoffle and Minnis 2008, 2007). I visited these communities to interview fishers about their spatial practices and territories, building upon my prior relationship with those settlements. The qualitative interview instruments I used can be found in Appendices A and B.

Prior to conducting research in the Bahamas, I needed approval from the Ministry of Foreign Affairs and the Ministry of Agriculture, Department of Marine Resources. This approval was obtained before travelling to the Bahamas, for both the 2009 and 2010 fieldwork, as was approval of the Social and Behavioral Institutional Review Board at the Ohio State University (IRB #2009B0223). As a requirement of the research permit from
the Department of Marine Resources (DMR), I was also required to develop an interim report summarizing activities and preliminary findings, which I submitted to the DMR during my fieldwork in 2010. This interim report is included in Appendix C, and will be discussed further below. The nature of these approvals is related to both the sensitivity of working with human subjects who may be engaging in poaching activities in the case of the IRB, and to counteract the practice of conducting research that has no benefit to the Commonwealth of the Bahamas.

Methodology

Methodologically, my research used a mixed methods approach to examine how these particular MPAs are constructed as representational spaces (Lefebvre 1991), how they overwrite existing territorial practices, and how local people are responding. These methods included archival research, private semi-structured interviews with the survey instrument found in Appendices A and B, participatory mapping, and participant observation that include GPS mapping. In addition, I used the preliminary report in 2010 as an interview tool, conducting group discussions and private conversations with local fishers and discussing whether they supported the report, and allowing them to suggest edits and changes. These methods were used to complete what I initially identified as two main tasks: *collection and analysis of fishers’ spatial understandings and practices; documenting dominant understandings of Bahamian ocean territory;* a third task, *data synthesis and examination of changing territorialization* has resulted in this dissertation.
Completing the first task involved the direct collection and analysis of data related to the spatiality of fishers, directed towards answering my first research question. In order to assess whether fishers have de facto territorial claims and to differentiate between resource extraction mobility and territoriality (Casimir 1992), I wanted to gather information as to where people habitually fish and what claims they make to control of those spaces. I primarily used semi-structured interviews, participant observation, and participatory mapping exercises to tease out the spatial extent of claims to territory, through direct questions such as: “Where do you (or people from your settlement) traditionally fish; Are these fishing areas shared with other settlements; Are there efforts to exclude others from fishing in your traditional fishing areas; Do you fish in areas that you feel no other fisherman can claim as a traditional fishing area; Do the proposed MPAs overlap with areas that you consider to be within your (or your settlement’s) fishing areas?” The questions were asked for both historical and present conditions.

The private semi-structured interviews were combined in some cases with participatory mapping exercises using nautical charts in order to try to spatially locate areas that are claimed as de facto territory. By combining interviews with mapping, I hoped to collect the spatiality of both fishing territories and local understandings of MPA boundaries. The interviews were to be private to ensure confidentiality and a high confidence level. These individual interviews and participatory mapping exercises were complimented with group mapping techniques with several individuals present as a way of measuring community norms and spatial practices (McCracken, Pretty, and Conway 1988). While there are a number of critiques of methods that use groups, this approach
has several benefits (Stoffle, Toupal, and Zedeño 2002). Group mapping allows for collection of individual understandings and collective agreements in order to assess whether the unit of community or the individual is more appropriate for analysis, while also providing an aggregate base to document wider spatial practices beyond individuals. Furthermore, in some contexts, such as interviewing members of the opposite sex, group interviews are more culturally appropriate than private conversations. Combined, individual and group spatial data were used to provide insight into how individuals and groups engage in the construction of the discourses of conservation, property, and identity in daily spatial practice.

I recruited participants by returning to the communities identified above, and used a snowball technique to broaden the range of informants. In addition to semi-structured interviews and participatory mapping, participant observation of marine use was also done to collect data on actual spatial practices. In some cases, this involved engaging with fishers who were cleaning their catch, and talking with them about their day of fishing. In a few cases this involved going out to sea with someone who was doing a fishing run, and in one case this was a trip with a fisheries officer and two fishermen who wanted to show the fisheries officer where and how they fished. Prior research in the area showed through interviews and observation in the ocean that fishers engage in a variety of techniques and extraction patterns that form a spatially diverse field of practice, and therefore impacts may be unevenly distributed (Stoffle and Stoffle 2007), and as noted above, proximity may not be an indicator of use. A combination of interviews, mapping, and participant observation were used to examine how the spaces of the fishery are
actually used and understood, and how this practice affects the formation of conservation discourse and resistance. In terms of understanding resistance, while there was solid data produced via the interviews of the trip in 2009, the discussion of the preliminary findings report in 2010 as described below in the adaptive methodology section, proved to be more fruitful.

Between the 2009 and 2010 field seasons I completed 23 semi-structured interviews with the survey instrument (Appendix A) with the fishers of Exuma. Semi-structured interviews were primarily conducted using the IRB approved Bahamian MPA and Territory Study instrument. The informal interviews asked questions along the same lines, but allowed the study participants to redirect into areas they thought relevant to the discussion of opposition to MPAs. By letting study partners redirect the interview, this technique allowed data collection to move outside of the preconceptions loaded into a survey instrument. I also completed six formal participatory mapping interviews using nautical charts with a total of 14 individuals. In terms of participant observation, which included informal conversations with people curious about the nature of my research who offered opinions in response, and meetings with policy actors without a formal interview structure, I enrolled a total of 95 study participants through the consent process.

To answer my second question regarding MPA policy actors’ spatial understandings and how they contribute to conflict, I conducted interviews with officials and marine scientists involved in the process of MPA creation. Semi-structured interviews were conducted with fisheries officers, NGO staff, and marine biologists working in the Bahamas to assess their spatial understandings of the ocean and territorial
claims. These interviews were conducted using a survey instrument that can be found in Appendix B. In addition, archival and written materials were used to provide insight into ways that Bahamian ocean spaces are conceived by policy makers, and the historical forces that help to construct this conception, including past statements on fishery management. These materials include official communiqués from the government, policy statements from scientists and government officers, the marine reserve proposal itself, and articles that appear in Bahamian media.

In addition to the residents of the Exumas, formal and informal interviews were conducted with representatives from the Bahamas National Trust (BNT), the Bahamian Department of Marine Resources (DMR), the Bahamas Reef Environmental Education Foundation (BREEF), and the Bahamas local office of The Nature Conservancy (TNC). One unexpected data source in Nassau was the free giving of opinion by people who had asked me why I was visiting the Bahamas. These informal conversations provided another source of information that expands the discussion of conservation in the Exumas. Interviews were explained through the consent process as anonymous, so people felt free to speak their mind.

By using both interviews and archival materials, I sought to build the effective history (Brown 1998) of policy actors’ spatial ideations. This form of historiography calls for attending to the accidents, conflicts, politics, and policies that result in contingent histories leading to the present state of things. This approach questions the linear, progressive conception of historical facts and social conditions that inform assumptions of how things ‘should’ be. This is not simply generating a counter history; instead,
writing an effective history is the act of asking what the effects of historical conditions have been, and how this leads to a unique set of conditions within a locale or set of parameters. In addition, it is expected that fishery officers may offer conflicting conceptions of ocean territory that reflects both their status as individual Bahamian citizens and government representatives. In terms of archival research, this was primarily conducted in late 2009 within the files of the Bahamian Biocomplexity Project housed at the Bureau of Applied Research in Anthropology at the University of Arizona, which holds the records of 572 interviews conducted with 193 individuals in the Exumas, including my personal field notes from that project. In addition, there is a large collection of newspaper clippings and official documents related to the establishment of MPAs in the Bahamas.

Adaptive Strategies

As is often the case, during the data collection process adjustments were needed in the study design different from the tasks I set out above. Between my fieldwork trips, I developed an adaptive approach to methodology that depended on presenting an analysis of what I thought I had learned so far as a way to engage conversation. In my analysis of the results of the 2009 fieldwork, I found little evidence of de facto territories being overwritten. Because I realized that people were talking about new territorial formations in response to threats, I adjusted the study design for the 2010 fieldwork to ask people about the sea within the context of imagining their being empowered to create policy. I framed this as a series of questions about how people thought the ocean should be
managed, and encouraged them to talk about their views of how the ocean should be controlled, and by whom.

The participatory mapping exercises and these group discussions prove problematic in terms of total accounting, as they were often done in public spaces that had participants come and go as the conversation progressed. At one point, there were at least a dozen people engaged in a wide discussion about the preliminary report (found in Appendix C) in the settlement of Mosstown, some of whom were passing through a conversation that originally began with four individuals, in a conversation that lasted for three hours. I printed a total of 150 copies of this document that were given to anyone who expressed an interest, as well as left in public gathering places. Some individuals who picked up these additional copies took the initiative to seek me out to engage in short conversations, or had people pass messages on to me.

Methodologically, the preliminary report document was used as a way to start conversations with individuals and groups and elicit further information, borrowing techniques used in Participatory Action Research. I used two different approaches when using the document as a research tool. In the first approach, I met with people whom I had interviewed at some point in the past. I provided them with the document, and then we went over it together, reading it to them line-by-line if they requested, or if it seemed they were hesitant to show their reading skills. These sessions were recorded so I could later use their commentary and suggestions for changes as data. In general, these sessions took from 45-90 minutes to complete. People were free to redirect and ask questions, and were asked what changes they felt were needed. In the second approach, I would join
groups of people in areas where people congregate, and distribute copies of the document to anyone who wanted one. I would start with an explanation of the purpose of my research, and then ask if anyone was interested in discussing the document with me. I would begin by introducing myself, and the document, using the verbal consent script. I would then proceed to work through the document page by page, reading it aloud as a tactic to overcome different literacy levels. As I read the report, people would stop me to comment and discuss the text, and I would write down their responses, making notes as to what they both agreed with and dissented on, in order to refine my findings and also make sure that there was a broad consensus that I was reflecting the views of the study participants and the wider community.

This second method proved productive, as it became part of a social gathering rather than an imposition on personal time. However, situations with large groups were also difficult to record, and I often stopped to repeat what I had written down. After presenting and refining my analysis using these approaches, I took the time to incorporate all comments from the people in Exuma into the document, prior to visiting Nassau for further meetings with policy actors in 2010. By using a preliminary findings document to guide conversations during this trip, I raised the confidence level in my findings by returning to the study areas and asking participants if I had accurately analyzed and represented their views. It also gave me the opportunity to incorporate dissenting views and multiple perspectives before I reported to the policy actors in Nassau, and expand the focus of this dissertation.
By using an adaptive strategy towards both data collection and research design, this dissertation has moved beyond my initial objectives and questioned outlined above. Rather than looking for an empirically identifiable network of de facto territories that care being overwritten by marine conservation, I instead found that the process of territorialization was a better research object. As I will show, the process of territorialization is informed by multiple spatial imaginaries, which then produce the ocean as a territorialized space in contradictory ways, with different political possibilities produced as well.
Chapter 3: What is a Marine Protected Area?

The title of this chapter asks the question ‘what is a Marine Protected Area,’ a question that seems to be deceptively easy to answer. This paper follows Agardy et al. (2003) in using the term Marine Protected Area (MPA) to describe a variety of spatial tactics and designations used for marine conservation, including but not limited to: No-take Areas, Marine Reserves, Marine Sanctuaries, and Marine Conservation Set-asides. The diversity of names and policies associated with marine conservation draws attention to the complexity of a spatial object that generates hundreds of scholarly articles a year, and indeed has journals that deal with little else. What follows is essentially a science studies approach to try to reveal the conflicts and complexities masked by this simplification of these diverse tactics into a single name. I will use a series of analyses to show that MPAs are not a neat object, but rather are entangled in multiple discourses that have different effects.

In order to do this, I wish to unpack these common-sense understandings and try to explain what it is that MPAs are thought to do, and how they are constructed. After a brief introduction as to the claims for the necessity of marine conservation strategies and the mainstream ecologically-based scientific literature on MPAs, my discussion turns to social science literature on marine conservation and the proposed strategies to achieve it,
and the ways that ‘nature’ and space are produced through these moves. In the final section of this chapter, I will question whether all proposals for ocean conservation, especially MPAs, are in fact ‘missing the boat.’

Each cut presents a different problematic. In the first cut, I posit MPAs as spaces needed for conservation of natural resources. This then produces a space that becomes a space that is withdrawn for science and ecological studies, territorializing the sea for scientific purposes and the protection of ‘nature’ while excluding resource users. In the second cut, I examine how social scientists argue for the preservation of lifeways using MPAs as a territorial right. This then also uses MPAs as a territorializing object that assigns the territory to non-state actors, and shifts the power dynamics of control over natural resources. In the final cut, I will look at how MPAs produce a space that is troped as being outside of capitalist social relations, but also forms an integral part of mediating the effects of over-exploitation. This creates an accumulation by dispossession that attempts to deal with the effects of a market system, in ways that also reinforce the problems of the market system. Yet through each cut, I will show that while the stated purposes and logics of MPA creation may be different, in the end, MPAs are about control of ocean spaces.

This chapter is therefore about how Marine Protected Areas figure into the problematic of ocean management while holding the idea of spatial conservation strategies as a constant. While there is extensive literature critiquing terrestrial conservation, scant critical attention has been paid in the geographic literature to MPAs and the ways in which they produce conservation spaces. In particular, I attend to the
ways in which MPAs are similar to terrestrial conservation efforts, but present unique challenges due to the ecological and political factors at play, specifically the ways in which creating bounded spaces in the sea are calling forth multiple territorializations at a variety of scales. While I cannot provide the breadth of approaches in full detail below, I trace out a few of the ways in which multiple conceptions of ecology and ecosystem health are used in the MPA literature. I am fully aware of the diversity of literature in marine ecology that have produced different levels of success in marine management around the world (c.f. Mora et al. 2009); my attention here is directed to the ways that marine conservation, and its associated protected spaces, is used in a general sense.

I want to suggest that perhaps we should be thinking about the process and politics of marine conservation that seek to protect benthic ecologies, rather than simply focusing on a tragic “deep” ecology that posits humans as the source of the destruction of ‘nature.’ Without too much violence to their good intentions, I would suggest the ways of thinking deep ecology operate in two modes. In the first, humans are a destructive force through their population growth (so their number should be limited), and a specific economic analysis that assumes constant growth and consumption. In the second mode, deep ecology posits a return to nature, in which humans learn from their mistakes, and will naturally seek to limit their numbers to avoid rampant consumption. Instead of these approaches that deploy MPAs as a way to limit humans destructive actions and conserve a non-human nature, I am arguing that MPAs produce contested spaces, implying that spatial conservation strategies are a social relation, rather than a biocentric innovation. I frame the problematic through a general uneasiness I have about the simplicity with
which the concept of MPA is deployed. Rather than simply a space for nature to flourish, my analysis will show that MPAs create contested human spaces, regardless of the non-human life within. By this I mean to ask about the ways that MPAs are conceived as a protector of nature, a regulator of human behavior, or perhaps both at once, signifying the need for a more robust ontology of conservation policy in the ocean within the wider debates about nature and society.

My analysis is derived from a decade of work related to a proposal to create a network of no-take marine reserves in the Commonwealth of the Bahamas. While that proposal is now more than 12 years old, little progress has been made towards implementation due to a number of factors, including local resistance. While the Bahamian proposal itself has a number of flaws that have been conceded by at least one of the authors (Dahlgren 2004) such as limited social science that was outweighed by ecosystem values, I wish to examine not only this particular proposal (Stoner, Hixon, and Dahlgren 1999) and its effects, but to consider the wider implications of deploying MPAs as a solution to environmental problems in the Global South. By using this particular proposal as the frame my analysis, I wish to bring to light a number of issues that need to be reckoned with if MPAs are to become a socio-ecological tool for solving the problem of declining stocks in the ocean (National Research Council 2001). By looking at how MPAs are constructed as socio-natural objects, we can begin to question the ways in which the logic behind applying control over spaces also limits the object, and in fact limits the potential effectiveness for conservation purposes. Indeed it seems that in many ways, neither the complexity of social relations nor a workable understanding of ecology
are fully deployed within the concept of an MPA, in order to more easily construct an object that can be deployed ‘out there.’

In the following cuts, I will examine several ways that conservation of ocean resources is approached through using spatialized solutions. These cuts illustrate that the logic of MPAs makes them more than simply spaces of conservation, as they are political objects, and there are often struggles over how these spaces should be controlled, and by whom. Far from simply being a strategy of the neoliberal state to control access to resources, these spaces are contested precisely because they impose a territory in an ocean space that has historically been constructed as being outside of territory (Steinberg 2001). By expanding state regulation of the ocean, MPAs expand state territory, and in turn can also be subject to counter-territorializations. By reading the construction of MPAs through different conceptual frames, I want to move beyond a common-sense understanding of MPAs, into one that is grounded in how power relations play out in a wider social field.

First Cut: Responses to the Problem of the Oceans

Recent models of fishery sustainability have predicted a turn for the worse, suggesting a potential worldwide collapse of 90% of the stocks by 2048 (Worm et al. 2006). These estimates are based on trends derived from declining biomass in the global

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4 There are debates about the veracity of these claims based on the notion that ecology is always in flux, and that catch may not reflect either biomass or biodiversity (Worm et al. 2009). It has been further argued that the loss of some species may be acceptable, and even desirable, as long as management regimes are actively engaged in producing fishery resources (Hilborn 2011).
fish catch, the shifting composition of targeted species, and changes to benthic conditions in near shore ecosystems. In light of such dire predictions, experts are renewing their calls for fishery management both in the US (Safina et al. 2005), and the rest of the world (Beddington, Agnew, and Clark 2007). Scholars propose numerous strategies to manage fisheries and improve health of the oceans, the most prominent of which all include “enclosing” oceans in some way (Mansfield 2007a, 2007b). One tactic is to privatize fisheries through the use of individual transferable quotas, which give fishers the right to target a specific stock, or the direct establishment of rights to exploit seabed; these tactics are seen primarily in the developed world (Hannesson 2004; Costello, Gaines, and Lynham 2008).

The other dominant strategy is creation of MPAs, which set aside spaces for conservation in the sea and exclude extractive activities. Recent scholarship has suggested that each strategy has prerequisites for success, and that a mismatch may occur when a conservation strategy is deployed without considering preexisting social structures that will affect the outcomes (Mora et al. 2009; Stoffle et al. 2010). MPAs often perform an erasure of social relations in the sea, and overlay them within a scientific matrix of expertise that determines which spaces should be set aside according to experts in the field of marine conservation. These can be read as spaces in which scientists, as designers of conservation, are withdrawing from public use a space for science to prove itself within the framework positivistic experimentation.

MPAs have become a particularly prominent conservation strategy in the developing world due to minimal start up cost, and many scholars consider networks of
MPAs the best approach to protect a dwindling resource (Roberts 2001; Roberts et al. 2001; National Research Council 2001; Nowlis and Friedlander 2004). Some scholars argue that there are limits to the effectiveness of spatial conservation for some species (Kaiser 2005), due to a scalar mismatch in the definition of ecosystem (Spieles 2010).

Yet, MPAs are a popular form of fishery conservation because it is claimed that they seek to replenish fish stocks by considering the ecosystem, rather than a maximum sustainable yield of targeted species approach that may not consider secondary effects. The thinking is that if you manage specific ecosystem *spaces* based on benthic conditions, instead of directly managing target species through the exclusion of fishers or certain fishing activities, a healthy ecosystem will result that increases targeted species (Stoner, Hixon, and Dahlgren 1999; Sobel and Dahlgren 2004). This seems to draw on the romantic view of nature that posits the removal of human activities as a mechanism to return to a wild state, which may not exist except as a powerful imaginary (Cronon 1995).

It has been argued that some ecological literature directed towards the management of sea ecology uses a hybrid of individualist and holist approaches to produce an idealized system that will maintain services. 5 Marine management therefore uses strategies that attempt to recreate a steady state ecology in order to maintain

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5 Spieles describes the difference between individualistic and holistic approaches to ecology in his book *Protected Land: Disturbance, Stress, and American Ecosystem Management* (2010). An individualistic ecosystem approach would be stochastic with variations in space and time, suggesting that it would be impossible to identify a “typical” ecosystem community, as changes affected species composition and density. In opposition to this would be a holistic approach in which ecology is moving towards a balanced, resilient community capable of responding to stress, with species variations in the niches provided by disturbance.
extractive value, leading to a tension between the value of preservation and disturbance as ecological models (Spieles 2010, 152-3). This is not to insinuate that ecologists are unaware that a ‘thin’ ecology is used in this form of marine management, but to note that the challenges of managing marine life as both an ecosystem and a resource requires hybridized means, to meet divergent ends. So for instance, if you have a reasonable starting population of a desired species, it is assumed under a thin ecology model that providing protected habitat will encourage growth in that species and enhance economic viability. Protecting this habitat should provide multiple niches and trophic levels for other species that will take advantage of the opportunity presented by creating a protected area. This in turn should increase overall biodiversity and biomass (Roberts 2001), and some cases it has, sometimes with nearly instant results (Howarth et al. 2011). However, some social scientists have argued that when scientists deploy a thin ecology, their arguments are in fact social rather than ecological in nature (Holm 1999), seeking to enhance fishery benefits, rather than ecosystems alone.

Spieles (2010) suggests that while this does indeed produce an area with improved ecosystem function, it is not necessarily the optimal ecosystem for broader ecological concerns. For instance, because the ocean is viewed in some cases as an open ecosystem, site protection is assumed to have equal effects. This provides for contradictory claims in the ecosystem management literature. For instance, in the “Ten Commandments for Ecosystem-Based Fishery Scientists” the claim is made that management should be holistic and recognizes that the environment is constantly under change in commandment one (Francis et al. 2007). However, in later commandments the
author argues for the preservation of old stocks, the maintenance of habitats and the spatial extent of stocks, and the maintenance of food webs, which implies a confusion as to which ecological models are deployed in their assessment of ecosystem management. These commandments fail to recognize the basic contradiction that either we can recognize the fluidity of change in the oceans, or seek to maintain specific habitats and species conservation. This is because ecosystem management as an approach has needed to subsume ecological function to the goals of management, notably to produce fish as a resource that can then enter the market. While this does not meet the explicit ecological goals of ecosystem management (Christensen et al. 1996), in many cases it appears that this is because MPAs are used to supplement management of a ‘fishery,’ in which stocks need to be maintained as what Polanyi (1944) would call a “fictitious commodity,” rather than an ‘ecosystem’ in which disturbance and change occur. Maintaining a diversity of habitats is of course important to the ability of organisms to survive, but arguably these organisms care not one whit for market forces and their viability as a commodity.

Because the ocean is generally thought to have a mosaic of ecosystems, similar to the terrestrial environment, marine scientists have stated that multiple habitat zones will need to be protected to capture the heterogeneity present in the ocean (Roberts et al. 2001; National Research Council 2001). Ecologists have also noted that while people have been known to develop a strong sense of place that leads to conservation on the land, this condition is lacking in the case of the oceans. This has led to the argument that future conservation work should be directed to highlighting diverse ecology in order to
create a sense of place (Norse et al. 2005). This then draws on an individualistic notion of ecology, that should then help conservation goals within the wider holistic ecosystem.

However, if the goals of management are a direct result of a resource use/ecosystem services model, based on notions of consumption by animals with limited agency that humans should use for the best purpose (Glacken 1976), the ecological considerations could suffer. MPAs are therefore broadly conceived as creating a space that puts ecological function in the forefront, with spillover benefits accruing outside of the zone of protection (National Research Council 2001). Some scholars have noted that the science behind MPA size and location makes assumptions about the behavior of animals that may work better in some contexts than others, and in fact may not protect some target species at all (Kaiser 2005; Agardy et al. 2003). Further complicating matters, a number of ecologists have recognized that the “Tragedy of the Commons” (Hardin 1968) is not as universal a descriptor of fishing activity as previously assumed (Agardy et al. 2003; Blyth et al. 2002), and that in actual practice fishers recognize that “extinction is suboptimal” (Costello, Gaines, and Lynham 2008). More attention is now being given in the ecological science community to the need for robust social science (Nowlis and Friedlander 2004) and management of fishery actors when developing fishery policy (Steele and Beet 2003). The creation of a protective space in the ocean through MPAs appears to be the bare minimum to reach conservation goals.

Much conservation literature suggests that in order for conservation projects to succeed, negotiating the support of local people is essential (Pretty and Ward 2001; McCay and Jentoft 1998; Castro and Nielson 2001; National Research Council 2001;
Elliott et al. 2001; Christie et al. 2003). While policy makers have started to try to include people in conservation decisions, the previously raised criticism of these approaches is that they put ecosystem variables first, and then add a limited number of social variables still seems to apply (Nietschmann 1997; Mehta and Kellert 1998). This means that significant social factors that contribute to conservation decision-making and responses may be overlooked (Stoffle et al. 2010).

This logic of marine management is in many cases dictated by ways of thinking that emphasize fish as a resource for exchange in markets, rather than as a resource that people utilize. Further, this is compounded by using a thin conception of ‘community’ (Agrawal and Gibson 1999; Agrawal 2000) that overlooks the complex social relations within and between communities and the larger socio-political world; these multi-scalar relations make it difficult to solve conservation problems on a strictly localized scale. While the incorporation of social variables appears to be a response in some ways to these earlier critiques, they fall short precisely because of the ways they then continue to incorporate as a limited number of variables (Stoffle et al. 2010). This lack of complexity in the social factors of MPA creation compounds the question raised above, of how much sound ecology actually fits into the models of ecosystem variability, suggesting that present approaches are limited in their responses to both a changing ecology, and changing social variables.

For example, in the proposed network of MPAs in the Bahamas, Stoner, Hixon, and Dahlgren (1999) use benthic habitat conditions as the determinate variable for MPA site location. While it is perhaps questionable whether the existence of habitat will
promote the existence of desirable species, the stated assumption was that representative habitat would protect a representative ecology. After appropriate sites were determined using ecological categories of habitat, the sites were weighted with a number of social variables. The variables considered weighed the presence of an established community, the loss of cash economic activity from fishing, and a rather thin analysis of support for conservation (requiring a sample of one person). However, because the determinate variable was the ecology, the social science in this case seems to be included as an add-on, a further metric the marine biologist authors of the report hoped would contribute to the success of creating a network of ‘nature’ reserves. Further, the assumption was made that the fishers utilized the ocean as a source of resources for exchange on the market, without consideration of other exploitive uses, such as subsistence. It also appears that none of these variables were fully ground-truthed, and they were instead used to add to the strength of the ecological variables of benthic types through statistical weighting.

It is worthy of noting that in addition to the above named social variables, a score of three could be achieved in the category of “Community Benefits” if, regardless of other factors, the proposed site had “sociopolitical uniqueness.” This score was weighted based on whether a proposed site was near “existing parks, research laboratories, or educational facilities” (Stoner, Hixon, and Dahlgren 1999, 8). This factor provides a benefit accrued from science that cannot be accounted for in the metric of fish extraction. It transforms the community in question from a locally situated subsistence fishery, into the wider notion of mankind, and assumes that science when given a research space will accrue benefits for local people. This assumption is interesting precisely because it
assumes that by making a space amenable to scientific research by creating an MPA, benefits will be available to local people based on the knowledge that scientists can gain from an undisturbed workspace.

This last variable created problems in the Exumas, where the Caribbean Marine Research Center (CMRC) was based on Lee Stocking Island. The proposed MPA for the western end of Great Exuma encompassed both Lee Stocking Island, and the large inhabited Cay of Barratarre. If this MPA were to go into effect, it would provide a nearby research testing ground for visiting scientists, but it would also have excluded all fishing activities by the people of Barratarre. Interviews with interns working at the CMRC in 2002 provided evidence that they were enforcing the proposed MPA preemptively, as they were pulling fish traps out of the water within the boundaries of the proposed MPA. While it is unclear if this was official policy of the CMRC, the result was to effectively create a space for the exclusive use of scientists. This created tensions with the owners of the fish traps, and led to accusations that the scientists were stealing fish for personal consumption. However, this particular case illustrates that MPAs are not only about conservation. By designating an ocean space as a research area, the scientists transformed MPAs from a no-take zone that allows entry by nobody into a space that is exclusively for the use of scientists. Rather than a set-aside for the health of fish stocks, the space becomes a space in which only scientists operate, giving them a territory from which they can exclude other people. Whether their research activities involves extraction is beside the point, as the MPAs restrict the entry of all other people, and thus provides the appearance that scientists are trying to claim the sea as their own.
The problems created by this particular MPA failed to fully reckon with the social issues in play. It has resulted in a long series of debates and negotiations, with little progress on the arguably important goal of protecting fishery resources for an archipelagic nation. By failing to account for subsistence activities in economic valuations, the authors designated entire communities as non-fishing, when it is in fact the primary means of obtaining household protein for many people. Further, the variable that identified “support for conservation” failed to ask what form that conservation should take. In trying to create a quantifiable analysis, this proposal by Stoner, Hixon, and Dahlgren oversimplified the social relations at play in many small communities in the Bahamas, and in fact introduced scientists as competitors for fishery resources who can assert a territorial control over MPAs. It is important to ask however, if the conservation-oriented scientists can be said to use a thin conception of the social relations at play in a fishery (let alone the ecology), is social science much better off?

**Second Cut: The Political Ecology of Fishery Management**

Social scientists have critiqued conservation using a diverse assemblage of theoretical standpoints to argue that conservation is in fact a series of social relations. Drawing on the work of Donna Haraway (1991), it has been argued that marine conservation efforts form a techno-scientific network of relations and connections (Johnsen et al. 2004). Other scholars have argued that conservation efforts produce spaces of exclusion, and that these are therefore political spaces. While the work of Lefebvre (1991, 2009a) is not explicitly stated in these critiques, it is useful to think
about the ways that spaces, and as I will argue in later chapters counter-territorialization, is produced by conservation efforts. Political ecologists have argued for years that conservation is entangled in social relations, capitalist accumulation, and the disempowerment of people. In essence, by trying to advocate for people ‘on the ground’ political ecologists turn the idea of conservation areas from a space in which scientific practice is writ large, into a localized territory for the use of people who depend on the resources. I now turn to some of the arguments raised in this literature that critique strategies such as MPAs for the ways in which they transform these social relations.

As a spatialized strategy, MPAs are subject to the same critiques as their terrestrial conservation counterparts. Ecological reserves are a common and contested practice on land as governance is transformed from customary to state control (Neumann 1998; Igoe 2004; Brockington, Duffy, and Igoe 2008). The effects of marine conservation as territorialization have been addressed to some degree within the MPA literature, which notes that reserves have been contested due to a “fencing of the sea” (National Research Council 2001; Steinberg 2001; Mansfield 2004). By attempting conservation through a territorial tactic, reserves adopt a spatially fixed preservationist stance, while arguing towards a general environmental concern (Rome 2001), within a techno-scientific network of relations and connections (Johnsen et al. 2004). Johnsen et al. describe the results of fishery management as a “…heterogeneous network linking together nature, society, technology, science, markets, and policy in new ways.” To this list I would add the territorialization of the ocean, a process that produces new spatial practices, and following Lefebvre (1991), representations of space. MPAs differ from historical marine
management strategies by changing the spatial configuration of the sea. It moves from what some people perceive as an “open access regime” that is vulnerable to a tragedy of the commons (Hardin 1968; Gordon 1954), into a territorialized network of spaces with different levels of access (Ribot and Peluso 2003), which then expands state power into new domains (Vandergeest and Peluso 1995). Like land based conservation areas, MPAs are territories deployed as total exclusionary spaces, rather than as a property right that can be described as primitive accumulation. Instead the exclusion is withdrawn from use by the state, suggesting an accumulation by dispossession that changes the livelihood strategies of stakeholders (Harvey 2003).

One reason that creating MPAs is a problematic project is in part because the ocean has long been viewed as vast non-territorial space (Steinberg 2001), especially before the adoption of the UN Convention on Law of the Sea in 1982 (Glassner 1990). This conception of the sea as an open access “commons” has led to a strategy that calls for the creation of oceanic property and the state-sponsored partitioning of the oceans to maintain viability of the resources within (Gordon 1954). While marine reserves are not property per se, they perform in similar ways by denying access to a wide group of people who previously used the area in common. Critical geographic scholarship on marine management suggests that the first step in managing the oceans as a national resource works by enclosing the space of the oceans, and transferring territorial control of the ocean to the state (Mansfield 2001, 2004a). State control of the oceans then works in ways that transform the access rights of users of what previously was a common pool resource, often with little consideration of how fishers themselves spatially may practice
extraction of marine resources (St. Martin 2001, 2006). Further, it overlooks whether they may make a prior claims to territorial control of extraction spaces (Nietschmann 1997). Thus, it is important to ask to what ends and whose benefit are these reserves created, and what responses will this new territorialization evoke from non-state stakeholders and actors.

The pioneering work of Nietschmann (1973; 1997) with the people of the Miskito Coast of Nicaragua suggests that the people in question may have claims to resources and territorial spaces prior to the creation of the state-owned fishery resource. This is not the only example of this kind of claim (c. f. Stoffle 1986, 2001; McCay and Acheson 1987; McCay 1987). Nietschmann (1997) documents the historical claims to Customary Marine Tenure (CMT) along the Miskito Coast and the ways in which the coastal peoples have tried to secure that tenure over time. Early in the chapter, Nietschmann claims that conservation, as practiced by International NGOs is a colonial practice. The people of the Miskito Coast are therefore contesting conservationist efforts as resistance to threats to their sovereignty (territory) and their livelihoods related to reefs that they ‘own,’ (tenure). Further, the people have maintained the reefs in question as healthy ecosystems through a conservation ethic. The operations of conservationist organizations in the area are treated by the people who hold CMT as the latest in a series of threats after wars and foreign

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6 I find it interesting that Nietschmann conceptually deploys both territory and tenure as spatial imaginaries. Each invokes a different series of rights and responsibilities under modern juridical regimes. Tenure would suggest a property relation involving title, whereas territory suggests a jurisdictional institution, without necessarily clear property rights.
exploitation of the fishery, and Nietschmann clearly supports the right of the people to fight off these threats.

In fact, the purpose of his 1997 paper is explicitly a political project. The reason that Nietschmann is weaving together the stories of fishing practice, wars, and resource exploitation is to argue for the rights of indigenous people to establish a *de jure* territory in the ocean for their explicit use. Further, he argues that the people are the historic stewards of the area and therefore deserve to continue their relations with the ocean. The dynamic that he reveals is that conservation policy, as designed by outside actors such as the World Wildlife Fund, Conservation International, and The Nature Conservancy, is colonial in the ways it seeks “sustainability” by producing conservation areas that exclude local people, while also providing room for economic development of the ocean by creating a commercial fishery. He is arguing that the conservation projects will be resisted because of the failure to recognize existing claims to the conservation areas. MPAs are political projects in Nietschmann’s analysis, for whoever controls the space of the MPA has an established right to the organisms within, and this right can be used to integrate with, or reject, the capitalist system.

While I am quite convinced of the merits of Nietschmann’s argument, I wish to point out that the way in which he makes his case is itself available for critique. Nietschmann’s presentation suggests that the issues of conservation areas on the Miskito Coast are in many ways similar to the arguments against park creation on the land (Neumann 1997, 1998; Robbins 2004). Nietschmann’s case is included in a volume that argues for indigenous homelands as “…often the last remaining places of rich wildness
and biological diversity” (Stevens 1997, 1, emphasis mine). This human ecology model that puts the people ‘back into’ a wild nature (Cronon 1995) arguably simplifies socio-natural interactions and is in danger of reifying the “ecological native” myth (Krech 1999). It is therefore sharing one of the identified weaknesses of the ‘deep ecology’ movement, the inability to conceive of an ecosystem run through with social relations and fragmented state control (Brockington, Duffy, and Igoe 2008; Luke 1997).

This critique that cites indigenous people as stewards has been deployed within the bounds of cultural ecology to argue that humans are a part of the nature that we see, and therefore they must be accounted for. Indeed, certain ecologists have noted that humans are themselves part of ecosystems and in some cases are important capstone predators (Castilla 1993; Berkes 1999) or should actively work to make the nature they want to see (Sapp 1999). There is also evidence that people can be produced as environmental subjects when they are thrust into the role of being the wise stewards who possess ‘traditional ecological knowledge’ as this knowledge is incorporated into hegemonic discourses (Sletto 2005; Agrawal 2005). This ‘environmentality’ can then be deployed to reassert power relations that had been weakened by environmentalist discourses which trope humans as negative ecological forces. So while I am cautious that is possible to read the case of the Miskito as a story that reinforces the myth of the ecological native, I am also aware that local and traditional ecological knowledge can and does have positive effects in many cases of marine conservation (Mora et al. 2009).
However, Nietschmann glosses over a factor that makes marine conservation debates different, and that is the history of territory in the sea as a power relation in the sea. As noted above, the sea has historically been weakly territorialized. Steinberg’s
(2001) history of “The Social Construction of the Oceans” traces the ways in which the oceans have gradually been enfolded into state territory (see also Mansfield 2004a) with large portions still remaining Mare Liberum under international law. While Nietschmann argues for a move towards a territory on behalf of an indigenous people, he fails to address the obstacle of the imaginary of the sea as empty space, exemplified by “The Bellman’s Map” from Lewis Carroll’s “Hunting of the Snark” (see Figure 3).

Within his long playful poem, Carroll describes a map that is a rectangle marked with terms that one would expect to see on a map. However, what is missing, and this is precisely the point, is anything within the map frame (Carroll 1898). The sea is presented as an emptied space, devoid of features, human activity, or even the resources to be extracted. Even in the present, the oceans on the map are almost always, in their entirety, represented as empty space filled by blue pigment. However due to the modern political process, lines are now being drawn on the map that fill the space through claims such as Exclusive Economic Zones that represent the power of the state, but even then, the map still only has a new borderline, and often no features within the new border save shorelines. It is a proposition on the map, a claim to power over a space that has not yet been filled (Wood 1992b).

Returning to the Miskito example, the fishers for whom Nietschmann advocates have never been on the map, they are Homo nullius (Pannell 1996). Their territories, while a spatial practice, have been rendered invisible. Arguing for their appearance in an empty spatial imaginary is easier said than done, as ocean territory is now a result of treaties between sovereign nation-states. Arguably, the fish and turtles that fall within the
boundaries of the reserve that Nietschmann supports are not fully present either, because they are fugitive resources that may not even be present. Following Lefebvre (1991), I am arguing the ocean is conceived as representationally opaque to us, and our ecological understandings of it tend to be oriented towards the extraction of useful species, rather than a robust understanding of an ecology (Wolf 2003). When the argument of rightful control due to a CMT is deployed, we are presented with a political ecology that is full of politics, but thin on ecology (Walker 2005; Zimmerer 1994). Further, spatial reconfigurations like MPAs or customary marine tenure posit a nature that can be contained by negatively bounding human behavior within a produced space. This however is a false conception because unlike on the land, “nature” cannot be contained under the sea by erecting barbed-wire fences. Rather than containing fish, MPAs, even ones that seek CMT rights, work to keep out people.

What Nietschmann offers is instead a productive movement of the debate from conservation of ‘resources’ to a discussion of politics and power relations as the necessary frame to understand conservation debates, because resources are part of the political economy. Further, he exposed the rhetoric of community-based conservation as put forth by NGOs for what it was, a way to govern associated communities within a system that seeks to colonize space. While he makes a good case for conservation based on the actually existing communities of the Miskito Coast, there are two further problems. The first has to do with the possibility that his ‘wise stewards’ may shift their extraction patterns. If the ecological sustainability of the reefs is actually important, how
then to control internal actors who have customary rights (Stoffle 2001). While I suspect Nietschmann is addressing the problem from an entitlement framework (Johnson 2004), this is a political ecology that fails to address ecology in a robust fashion. Is the goal to create territory, or to create rights to some kind of nature that is expected to continue to produce itself through self-regulating behavior? If the nature that is invoked within this framework is biodiversity, it has been suggested the problem may become one dimensional (Zimmerer 2000) requiring only a large number of species, rather than functional dynamic ecosystem. This is a funhouse mirror of the marine scientists who focus too little on social variables while proposing MPAs, which I raised above. The complete ecology of oceans is difficult to capture, because any spatial solution encounters only space, with ocean life that cannot be enclosed by fences and about which little is known (Acheson 2006), leaving only humans and social variables to put into the formula.

The second problem with Nietschmann’s approach is a conception of customary tenure as a proxy for community property. The empirics of the case on the Miskito Coast show well defined reef territories that are tied to indigenous communities as community

7 I imagine that the answer might be, this is not the point; these are internal problems within autonomous territories that must be recognized as such. While conservation is the vehicle, as a political project it is not actually about maintaining ecology, which is held aside as a problematic concept to begin with.

8 I am aware that the same could be said for my own work. While there is a large body of ecological literature suggesting that scientists are aware of the limitations of one-size-fits-all approaches, my concern is directed towards MPAs as an object. Indeed, the breadth of the ecological literature regarding the need for diverse strategies for managing diverse ecosystems makes my uneasiness with the umbrella term MPA justified.
property (Nietschmann 1997). However, the category of Indigenous itself presents a problem in that it homogenizes both the questions of who is local and what other categories exist to describe community composition (age, gender, class, ethnicity, etc.) in a problematic fashion (Neumann 1997; Agrawal 2000) that glosses over competing claims to resources. St. Martin (2001, 2006) explores this question in his studies of fishers in the northeastern US. The complexity that St. Martin finds in his case of trying to locate community suggests that the perhaps community property is a problematic concept that fails to account for the wide uses and extraction patterns in the ocean that could lead to broader use claims. Further, because control of the oceans is assigned to the state under the UN Convention on the Law of the Sea, it logically follows that the politics of the ocean then depends on accounting for the nation. Fishers from distant communities may claim a portion of the sea under changing political circumstances, as a community with customary rights accorded by citizenship in the nation-state. St. Martin’s case suggests that the idea of a ‘local’ fishery is an oversimplification that cannot account for the diversity of spatial practices of fishers. The sea, as an empty but simultaneously territorialized space, has a diversity of patterns and practices in extraction. This then means that any areal marine policy will have to account for this diversity, or risk social violence against a fisher who is thereby excluded. Indeed, it has been shown that spatial strategies can do just that when they effect rights to the exclusion of other actors (Mansfield 2007b).

In arguing for spatial strategies for marine conservation, both marine scientists who support MPAs and social scientists advocating for conservation management that
incorporates local people, are arguing that ocean spaces be transformed into either a form of community, or a parastatal territory. As noted in Chapter 1, ocean territorialization as a political practice has rarely been addressed in existing social science on MPAs. This is in no small part due to a tendency to focus narrowly on discrete social variables in order to create predictive models (Stoffle and Minnis 2007; National Research Council 2001; Stoffle et al. 2010; Broad and Sanchirico 2008), or address policy development on the global or national scale (Mansfield 2001; St. Martin 2006). Further, while the goal of these studies is for the purpose of accessing fish as a resource, fish are little more than a series of organisms to be fought over, and it has been argued that in some cases, the fish are not even necessarily part of the equation (Johnsen et al. 2004). In order to create an MPA, you need people to exclude, and an entity to have the right of exclusion; the ecology is secondary. There is limited social science in many biological arguments for conservation, yet as noted above, there is also limited ecology in much of this ‘political ecology’ (Walker 2005). However, there is yet another way to look at spatialized conservation strategy that remains to be examined, the notion of the ocean as property, both private and common. We shall see that it is once again space in the ocean that is contested, rather than the life within.

**Cut Three: Who Owns the Ocean?**

The property right is asserted as one of the prerequisites for neoliberal capitalism, and over the last several decades a number of scholars have asserted that the ocean requires the same treatment. In working through the problem of property in the oceans,
and how it relates to Marine Protected Areas, I want to briefly explore the literature on property rights in the oceans. While the notion of property would appear to be the opposite of a withdrawal by the state, such as an MPA, my interests here are in how the property form works in relation to conservation. In addition, while property is seen as a right granted to an individual or group by the state, withdrawals from the public domain work in similar ways to property by establishing a bounded space for the use of no one. If an entire community previously used the space in question, there would be little effective difference between assigning property rights to an individual, and withdrawing all access. Further, within the property literature we can see a diagnosis of the problem of resource management that suggests that enclosures are the only viable solution.

Both property and state territory, as enclosures of space with the right to legal force, are tied together in ways that produce similar exclusions. I would suggest that property is a form of human territoriality that is not accounted for fully in much of the literature on territory, and while it has different logics, it has similar exclusionary effects (Sack 1986). This is not to say that the property form is constitutive of territory (Miller 2011a), but that the modern neoliberal state, despite the contradictions, deploys territory and property in similar ways. Indeed, as Mansfield has noted repeatedly, fishery management tactics that produce “property” in fact produce contradictory social relations (Mansfield 2004b, 2004a, 2007a). While property is considered a prerequisite for the capitalist mode of production, it does so in a way that has ties to territorialization by the liberal state, through the exclusion of others for the benefit of some. It has also been argued that the ways in which conservation has been deployed in recent years is directly
related to the expansion of neoliberalism, in order to offset the effects of capitalist accumulation and resource destruction (Brockington, Duffy, and Igoe 2008).

The literature related to marine property is extensive and there are political commitments at stake within the arguments presented. Alternatively, I argue that MPAs produce a form of territorialization in the ocean that directly relates to the discussion of property in the oceans, as a space outside of, yet similar to private property rights in order to reduce the impacts of fishery activities. I am arguing that by attending to the claims made about how property is deployed as a right in the ocean, we can also begin to think about how claims to spaces and rights can have either negative or positive effects for people. In addition, MPAs are sometimes presented as a solution that falls outside of property right regimes in order to mitigate the effects of not having a well-developed neoliberal property system in the oceans, and as such are linked in an either-or fashion.

Arguably, all contemporary strategies for managing fisheries are based on a form that either establishes or limits property. Strategies such as quotas provide for the portion of total allowable catch for each vessel, designating a portion of the sea life as belonging to a permit holder. Other strategies, such as gear limits, are an attempt to reduce the amount that can be caught and effectively limit the total biomass that any individual can catch, as a portion of the available sea life, giving a limiting factor to how much of a resource an individual can possess. MPAs operate in a way that asserts either a territory qua property relation for the state, or as the common property belonging to a social group, such as the MPAs of the Miskito Coast. Yet, despite the fact that MPAs practice an exclusion that transforms marine life within their boundaries into state property, they
are not uniquely discussed as such. They are posited as the alternative to creating property, which might be even more politically unpopular, by limiting all activities rather than reassigning rights to title-holders.

The idea of property in fisheries as a solution to possible crisis is credited by some in the academic literature to H. Scott Gordon, who sought to avert what he saw as an impending crisis resulting from the lack of property rights (Gordon 1954). Gordon is quite clear that by property he means a spatialized strategy in which each fisher has private property, delineated as “legal title to a section of ocean bottom” (1954, 131). Because fishers are not limited in their extraction spaces, Gordon argues that there is a mad dash over wide spaces that results in the poverty of all fishers, unless a property right of some form is asserted (1954, 132). Reading Gordon in light of the debates from the last 30 years over the concept of property is difficult, because he preceded the attempts to specify different forms of property in natural resource management (Schlager and Ostrom 1992). Gordon accounts for what is now called ‘common property’ in certain literatures (Ostrom 1990; McCay and Acheson 1987; McCay 1987; Acheson 1988) under the umbrella of private ownership by groups. Gordon instead uses the word common property for what now could best be called common pool resources and/or open access resources, or as Schlager and Ostrom (1992) note, property that is owned by no one.\footnote{Arnason (2007) documents that Danish economist Jens Warming first put this argument forth in 1911.} \footnote{Gordon claims that property owned by everyone is owned by no one, suggesting he has a lack of clarity regarding group ownership, or at least the limits of how ‘everyone’ is deployed within some social groups.}
Gordon was building on discussions of fishery problems that he had been pursuing for some time with fellow economists A. D. Scott, J. Crutchfield, and R. Turvey in the previous decade, all of whom published shortly after Gordon (Arnason 2007). Unlike Scott (1955) who is arguing from a case of sole ownership of the seabed, Gordon is advocating a fishery policy that achieves economic rationality through the creation of a real estate market in the ocean, borrowed from the agricultural form on the land. Using examples from historic enclosures in both group form and individual, Gordon lays out an argument that ecological and economic stability can only exist under cases where a bounded property form has been developed, because an open access form results in failures. Due to the law of diminishing returns, and the claim that “Wealth that is free for all is valued by none” (Gordon 1954, 135), Gordon makes a case for managing fisheries not as a stock but as a bounded area to which an individual or group has a claim. Following the ideology of capitalism and the laws of supply and demand, Gordon argues this will then result in rational extraction of resources, instead of unlimited withdrawal.

Mansfield (2004a) notes that this argument is significant because it predated the argument of Hardin’s (1968) “tragedy of the commons” and it is an early attempt to think through an economic analysis of fisheries. By thinking through the concept of economic yield of fisheries, Gordon removes the discussions from a biological sustainable yield (a calculation still in use today in the property form of Individual Transferable Quotas) to one that puts fish into a matrix of capitalist social relations and market forces by trying to maximize value and thereby avoid crisis. The way to do this, according to Gordon, is to divide the oceans into property based on owning a bounded portion of the seabed.
Property in the oceans needs to become a territory in the broadest sense, clearly delineated with exclusions encoded in law.

Yet, the property form on the land produces inequalities for which Gordon has no answer. If we are to follow the analogy of property on the land, we would need to account for the effects of primitive accumulation described by Marx (1976), as well as the problem that natural resources cannot be considered commodities, as there is no labor involved in their production (Polanyi 1944). If we accept that MPAs create a territorial form that provides exclusion in the same ways as property, following Harvey, the development of MPAs would result in accumulation by dispossession (Harvey 2003). So while MPAs cannot be understood as property, they perform in similar ways by using exclusion as a tool to combat the effects of over-extraction driven by market forces, while at the same time limiting the availability of resources for those who cannot reach other areas. In contrast, because some forms of MPAs utilize community-based management to give local stakeholders access to conservation areas, we need to interrogate how this also creates a withdrawal as property.

The question of rules that govern territorialized spaces and property relations has been interrogated by a number of scholars with interests in fisheries as common property (e.g. Schlager and Ostrom 1992; Nietschmann 1997; McCay 1987). Schlager and Ostrom (1992) offer an analytical framework to distinguish multiple forms of property, and offer a critique of the term ‘common property,’ for which they identify three commonly used definitions in the literature: “1) Property owned by a government; 2) Property owned by no one; 3) Property owned and defended by a community of resource users” (Schlager
In their framework, they suggest that an analysis of property rights requires examination of rules and rights, with rights as a product of rules that limit collective choices. These rights and rules are collectively agreed upon *norms* (my term) or constituted in a formal fashion through written agreements, or recognition by an authority. The rights associated with the rules can grant different levels of access to a resource, ranging from the right to fully alienate a resource as the owner, to rights of access to the resource that allow the entry of a wider range of actors.

The framework of Schlager and Ostrom further examines the relation between *de facto* and *de jure* rights. De jure rights are delivered from the state with enforcement powers. However, Schlager and Ostrom also note that de facto rights such as ownership or proprietorship can be conferred through collective agreements among resource users, which can also become de jure if a government agrees to recognize them. Adding further complexity to the concept of property rights is the fact that de jure and de facto systems may overlap, and even conflict as in the case presented by Nietschmann (1997). The literature is in fact full of cases that cases in which common pool resources are managed as community property (Berkes 1999; McCay and Acheson 1987; McCay 1987; McCay and Jentoft 1998; Stoffle 1991; National Research Council 2001; Stoffle 2001) without formal state recognition of these systems as juridical property. Arguably, the concern for

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11 While the first two definitions are certainly in agreement with Gordon’s definition, the final is within his concept of private property. However, Schlager and Ostrom are referencing the slippage of the term a wider body of literature that includes Gordon. There also seems to be some slippage between the concepts of common property and common pool resources. A fourth identifiable form of property is that of corporate private property, but this wasn’t the focus of Schlager and Ostrom’s article.
these scholars is that the state should recognize common property as a legitimate form of property. This would then allow the establishment of MPAs that use community-based management to give protection to organisms through traditional practices, utilizing the institution of community property, transforming a de facto marine claim into a de jure property (National Research Council 2001).

Schlager and Ostrom argue that the recognition of de facto property rights have a number of implications. First, the resource economics literature after Gordon calling for property rights in fisheries tends to ignore the ways in which common property systems as identified in their paper can contribute to understandings of fishery change. Second, self-organized common property regimes are developed in situ and therefore incorporate local knowledge that can provide better ecological baselines. Third, the findings of an actually existing common property qua property, counters the argument that sweeping reforms are needed to manage the fishery. To this I would add a fourth, that existing common property regimes, as property, can more easily be incorporated into the capitalist system with specific alienation rights being given to more powerful actors (Johnson 2004; Mansfield 2004a).

However, to their credit Schlager and Ostrom conclude with a statement against blind faith in any single solution to fishery management problems. While the case they use of Maine Lobstermen presents strong evidence that common property institutions can produce efficient (read profitable but non-destructive capitalist, a possible contradiction in terms) fishery management, they caution against any single solution. Common property is but one possible property relation, and the context in which it is deployed is
important. Further, they suggest that any approach cannot be one-size-fits-all due to a diversity of environments and institutional arrangements. However, my familiarity with Ostrom’s work in general is its use by a variety of scholars to make a case for community-based management as the solution to fishery management problems. This can be problematic because it has a ‘poverty of history’ (Johnson 2004) that ignores both the socio-natural conditions of the marine environment in the material and ideological senses. Positing common property as a solution also ignores the fact that it is a reformulation of Gordon’s (1954) solution, that enrolls people and resources into the capitalist mode of production.

In contrast, St. Martin’s (2001, 2005, 2006) examination of community property within the nearby groundfish fishery does not simply to argue for community property as a way to achieve ecosystem sustainability (Acheson 2006; Schlager and Ostrom 1992). Rather, he argues that community property can be counter to the hegemonic project of the privatization of the oceans and capitalist development of fishery resources. This however raises for me the question of how this works. In establishing community property rights, one can afford some protection for the fishery from the capitalist system and the ways that the privatization of everything is part of the neoliberal project. But by rationalizing the fishery and making fishery management into a matter of controlling access to natural capital, can it not then lead to uneven development as it touches down differently in different places and exposes people to market discipline (Mansfield 2007b)? In order to answer this lingering question, I need to turn very briefly to another way that property is conceived in fishery management.
The progressive construction of the oceans as a national space with resources to be extracted for the wealth of the nation leads to the first moment of the creation of property rights within law of the sea (Mansfield 2004a). Theoretically, this enclosure gives the states the right to limit access and thereby devolve property rights to individuals. As noted above, the form of state property in the ocean also allows for the creation of MPAs. However, limiting access in many cases has resulted instead in an overcapitalization of the fishery, due to the creation of fishery licensing within an open access regime outside of protected areas, rather than property rights per se (Crutchfield 1986; Mansfield 2004a).

In his argument for the “Death Rattle of Open Access” Christy (1996) argues that property rights as historically conceived have failed to provide for the inevitable goal of fishery management, that of wealth redistribution (1996, 291). While he is sympathetic to the concerns over the effects of privatization as an impoverishing institution, he argues that there must always be “losers.” The impediment to a strong system of property rights in fisheries, Christy argues, is that managers have sought to placate potential losers in all previous attempts to create property rights, whether through Territorial Use Rights (TURFs), licenses, or Stock Use Rights (SURFs) based on the right to harvest specific

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12 TURFs as described by Christy are the recognition of common property rights. He argues that the recognition of common property has been fraught with the problems of defining community and the lack of stability within communities due to labor mobility, a problem also recognized by political ecologists in favor of community based management (see Agrawal 2000, 2001; Stoffle 2001). However, it is important to note that for Christy (like Gordon) community property is only viable if it is managed as if it is managed as private property engaged in market relations. Other forms are not rational, and will therefore lead to tragedy.
organisms. Further, he argues that consideration of fish ecologies has crippled the process of rationalizing fisheries by prioritizing the health of the fishery through sustainable yield calculations. According to Christy (1996, 294), this effect is negative because it prioritizes nature over economics, the only solution to resource management. The state has been ineffective because it seeks to manage a resource rather than fulfill its function of assigning property rights. Christy then goes on to assert that nearly all of the ocean must be enclosed as property, rendering the question of conservation moot, except as correctly valued property. The question of how to designate property rights depends on the targeted species, whether a relatively sedentary species such as oysters, or a mobile species such as tuna (Christy 1996, 295).

        Christy is willing to concede that the privatization of the ocean carries with it critiques, such as the concentration of rights to large corporations as monopolies (Christy 1996; see also Mansfield 2004a). For Christy, this is not a problem because it is simply a matter of pricing rents correctly to ensure a profit, and notes that monopolies are mostly illegal, so not a concern. For Christy, the fishery as a property has no fish or people, but only rents and economics. This effectively displaces small-scale fishers, who are engaged in artisanal or subsistence fisheries, precisely because they are not engaged in capitalist social relations. Alternatively, an approach that attends to political ecology would note that this serves as a form of violence against fishers, which disenfranchises people in the Global South by alienating them from the means of production, and forces them to become enrolled in the capitalist system of production to meet their subsistence needs.
Further, I suspect that Christy’s arguments fail because while he asserts property rights are necessary, he fails to interrogate whether they are sufficient.

In part, this has to do with the difference between a product and an organism. While fish are resources that self reproduce, the question for Christy is the efficient use of capital to bring them to market, not the fish themselves (Christy 1996, 297-8). Further, the problem of bycatch (catching and killing non-targeted species) is reduced to the taking of another’s property, for which a compensation mechanism would need to be devised. Ecosystems fall out of the picture completely, fish are rendered invisible except as commodities, and the solution to any uncertainty is to create a futures market to offset the possibility of collapse. As noted above, the problem with the commoditization of fish is that as a ‘fugitive’ self-reproducing organism they are a fictitious commodity (Polanyi 1944). They carry no surplus value because fish are a means of production, and it is only the labor expended in their extraction that adds value; therefore, they cannot be accounted for, even as fixed capital. This is why depletion is not a problem, because the fish themselves are removed from the equation.

People also disappear in Christy’s analysis. This is perhaps an oversimplification, because he is indeed concerned with people, but only as actors in economic relations. He reduces the complexity of social relations to the motivations of “enhancement, efficiency, and equity” (Christy 1996, 299). This appears to be an analysis that fails to take seriously the issue of class, in that the first two motivations are restricted to capitalists, and he dismisses entirely the needs of the working class, except for the claim of equity. Instead, 13 Except through the expression of rent, hence the desire to privatize fisheries.

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property is foundational for Christy; by creating a series of private property regimes, fisheries can finally be incorporated fully into capitalism and avoid the problems of market fluctuation and stock degradation caused by over-capitalization or scarcity. The goal is to create market subjects in the image of Locke’s theory of property (Mansfield 2007a). The management of fisheries through property relations becomes a techno-social network (Johnsen et al. 2004) with uneven power effects, and natural resources rather than living organisms. This in turn creates the winners and losers that Christy maintains are necessary, effecting a politics that renders small scale and subsistence fishers subaltern in the debates about management, while partitioning of fisheries into protected areas and places of access. Similarly, MPAs may be thought of as embedded in these networks of power and capital. MPAs, like all protected areas under a neoliberal regime, can be deployed to offset the effects of market failure in resource management (Brockington, Duffy, and Igoe 2008). While MPAs, as a state property, may be more politically feasible in some cases than creating Christy’s “winners and losers,” they are still a response to market failures that use the tactic of enclosure.

In essence, I am arguing that MPAs suffer from the same problems as the establishment of property rights in a fishery. By seeking to create a conservation space within state territory that is removed from the market, and declaring a portion of the seabed as state property, MPAs displace fishers in similar ways to assigning private property rights. This both strengthens the territorial claim of the state to the ocean and seeks to discipline citizens in their economic participation. But this also performs in a similar fashion to a property right because MPAs are in fact a response to an economic
failure that seeks to replenish the stocks for exploitation. MPAs seek to increase biomass in general through a local spatial strategy that excludes humans (Mumby et al. 2006), and this is in effect an accumulation by dispossession that uses a spatial fix to solve a problem of over-consumption (Brockington, Duffy, and Igoe 2008). Yet as noted above, scientists concede that this approach overlooks the complex ecology of the ocean (c.f. Norse et al. 2005; Mumby 1999). The MPA itself becomes a property of the state, a public good that may not be used, in order to replenish resources elsewhere. It is transformed into a property of no one except the state (and as we saw above, perhaps also scientists), for the enhancement of resources for fishery extraction under neoliberal production regimes. It is important to remember that an MPA established on the basis of habitat consideration may not contain any of the desired species; it is a negative space that only removes humans by designating a state territory.

In order to conserve ecology about which little is known, MPAs are a political solution proposed to restrict human activities that are both necessary for economic gain, and potentially harmful. Fish cannot necessarily be accounted for, but excluding people from a potential space of production then possibly offsets the impacts of fisheries extraction. The fact that this strategy is deployed more often in the Global South is no accident. It is accumulation by dispossession that takes advantage of, and in fact redeploy, uneven development as sustainable development (Butcher 2007; Smith 1990). Managers and experts cross out the ecology of the ocean as an uncontrollable variable, and instead fishery management becomes a power relation between the state and possessors of rights, who perhaps contest conservation policy, but who are all excluded
equally by withdrawing ocean spaces. They are reduced to economic actors, and the oceans are reduced to a means of production. In economic ways of thinking about the governance of fisheries, the rule of experts prevails (Mitchell 2002b), and people are enrolled as extractors of fish for global markets through the production of both private property and conservation areas (Brockington, Duffy, and Igoe 2008), with MPAs as a strategy to reduce the effects.

*From Conservation to Territorialization*

The solutions that have been offered to declines in biotic life in the oceans have been stuck in discourses of conservation, preservation of lifeways, and management towards capitalist production. These are not ecological modes of thinking; instead they hail a nature that is separated from us by a gap that cannot be bridged, as something to be protected from, or for, human activity. It is a fundamental aporia caused by the human-nature divide that is not easily overcome. This in itself is perhaps a strong critique of conservation practice, one that allows us to critically examine the preconditions for each view presented above of MPAs as a conservation strategy.

Yet, examination of these assumptions about the non-human world gives us a partial understanding of the ‘nature’ of MPAs. For while MPAs have a goal of changing human activity, as we have seen above, they invoke certain social relations about the control of space. In other words, they call forth territories: a territory for scientific practice; a territory for local people; a territory of the state deployed by managers and experts to both offset and promote the effects of capitalist overconsumption. While some
theorists have argued that territory is the exclusive province of the state in the modern juridical framework (Elden 2009), MPAs, and perhaps all conservation areas, question this assumption through the ways in which they create bounded defensible areas for diverse purposes. The social groups that seek to use these spaces perform in a territorial fashion, arguing for exclusive use of the space. The question then remains, if MPAs produce effects that cause them to appear to be a territory that can exist in beyond the level of the state (although within the jurisdiction of the state), does the notion of territory need to be reworked? Specifically, I turn in the next chapter to the relationship of territory to territoriality, and the ways that these intersect to give us hybrid territorializations, such as MPAs.
Chapter 4: The Significance of Territorialization

As we saw in the previous chapter, Marine Protected Areas as a conservation tactic always seem to be entangled with producing a territorial exclusion. Whether this territorialization produces spaces for scientists, local people, or state resources to offset economic exploitation, the result is still an enclosure that is for someone, and excludes others. These territorializations are neither explicit nor theorized in the MPA literature, and this chapter uses the tools of political geography to analyze how territory operates in order to more fully explain how MPAs function as territorializing objects. While my interests are in MPAs and their territorial effects, in this chapter I wish to explicitly examine the terms territory, territoriality, and territorialization. This is necessary in order to properly frame the discussion of MPAs as territorializations, and to shed light on how MPAs transform the ocean from an open field into contested water, a subject to which I shall return at the end of the chapter. Further, while much has been written about the nature of territory and territoriality, little has in fact been said about the intersection of these two key geographic concepts. The general analytical formation creates a tautology, that territoriality leads to territory, which then leads to more territoriality. Yet this cannot possibly be true, because not all territoriality leads to an established territory.

However, in this chapter I will direct attention to the practice of territorialization, and explain the ways in which it exemplifies a distinct form of political practice, and the
ways that knowledge/power configurations work to produce territories, including territories with no formal recognition. Specifically, I will question the ways that holding territory and territoriality as analytically distinct but related terms, does not direct enough attention to territorialization as the linking term, and as a political practice that can operate on multiple scales. By directing our attention to how territory and territoriality work, we can also say something useful about the ways that MPAs invoke these spatial imaginaries. In short, as we shall see later in this dissertation, when MPAs are contested as territorializing objects, the tactics of resistance include re-territorializations to counter their exclusionary effects.

In specific, I want to ask if the significance of territory or territoriality as a frame of analysis allows us to overlook moments of political potential, specifically the possibility of territorialization as both a technique of oppression and liberation, operating simultaneously within state power and against it. Further, we can ask whether these moments should in fact become the object of analysis regarding the social control of spaces. Is territory now the exclusive province of the modern state; or is it instead something that has emerged (or is constantly emerging) through a series of historical accidents in such a way that while it appears to be of the state, can also offer opportunities for liberation, through invoking territorial claims that operate in a permeable multi-scalar fashion? In thinking through the nature of conservation practices that seek to bound spaces and limit access, I am also intrigued by the ways in which people who have historical ties to the spaces in question seek to invoke a territorial claim that counters their removal, and indeed seek to territorialize the spaces themselves (c.f.

86
Nietschmann 1973; Sletto 2005; Neumann 1998). These territorial tactics, while seeking engagement with the state, also disrupt the model of state territory by producing territorializations from below.

While my interest is tied directly to debates over conservation and its attendant attempts to control spaces, I am also interested in the more general notion of territorialization as political engagement, and the ways in which it should therefore differ from territory and territoriality conceptually. To do this I will need to examine both territory and territoriality in their general form, before I can address territorialization as political engagement. In order to see if there might be fertile ground in thinking about territorialization and its political potentials, I will examine the theoretical underpinnings of the concepts of territory, territoriality, and territorialization in order to get any purchase and therefore make an argument as to why any or all of them are important as a frame of analysis.

As a concept, territory requires the deployment of power across space to create a primary place with regulations and rules, rather than a simple spatial partitioning, which Sack (2000) designates as a secondary place. Yet, what is it that allows one space to be referred to as territorialized by a controlling entity, while another is simply bounded space that may be within a territory, but not a territory in and of itself? Below, I will examine this issue further, but first I wish to make it clear exactly what distinctions I am drawing here, and why. While territory has been shown to be concept that is not trans-historical, nor evenly distributed in its effects and deployments (Elden 2007, 2010), it is nonetheless frequently used conceptually as a category of state power, while human
territoriality is seen as a more diffuse expression of power (Sack 1986). It is important to ask however, whether territory is a product of the historical circumstances that led to the rise of the modern nation state, or whether something can be said about human territorialities, in the plural sense, that engage state territory with uneven effects. I am arguing that when territoriality, as a tactic of resistance, engages with territory, transformative politics can occur precisely because new re-territorializations can occur by changing the power relations enmeshed in the spaces in question.

Sletto (2005) provides an illustrative example in the case of environmental conservation. Writing about a conservation area established in Trinidad, he deploys Foucault’s concept of power/knowledge in a positive sense. By drawing on “…Foucault’s notions of subjectification, surveillance, and subjugated knowledge to analyze the liberatory potential of local knowledge through its embodiment in spatially situated subjects,” Sletto outlines the ways that control over a space provides people with new political possibilities (2005, 1). Specifically, the incorporation of “local knowledge” into conservation discourses offered a site of resistance for local fishers in the Nariva Swamp. This in turn led to use of this incorporation into the discourse by local fishers, in order to frame themselves as protectors of the environment. This then empowered them to control the spaces of their extractive activities.

While Sletto makes it clear that the fishers in question were not necessarily the “good” actors that the conservation discourses initially made them out to be, their subjectivity and resistance produced by adopting these discourses changed their behavior as they assumed control of both the space and the discourse. In essence, their use of the
power/knowledge configuration that had also invited the use of their “subjugated knowledge,” allowed them to territorialize the area and assume degrees of control that had either been contested, or else the province of the state. This created an effective territory, one that is both under the auspices of state power, yet devolved from it as well. While the protected area has been transformed into a devolved territory, it is only possible within the discourses of power and environmental stewardship that allow the people of the Nariva Swamp to deploy their territoriality. In essence, their territoriality in this case is a general tactic, but the end result is a specific bounded territory.

When Elden (2010) writes that he is studying territory, rather than territoriality, he is making an important distinction. However, by rendering the concepts analytically distinct as abstracts, there is a gap that remains that can be filled by attending to territorialization as the mechanism through which territory and territoriality intersect. This gap exists in the specific politics deployed as knowledge/power that allow territoriality to become a specific territory, using territoriality as a positive force from below. I am arguing that territory is both more and less than an apparatus (dispositif) of state power, as territory can be deployed as resistance against the state. While the “older sense of ‘territoriality’ as a condition or status of territory” (Elden 2010, 801) has fallen out of favor, I wish to explore the possibility that political struggles over control and access to spaces are attempts by people to reassert territoriality outside the state apparatus of territory, through the process of territorialization as political activity. This differs from other concepts such as a sense of place, in that it directly seeks control over a bounded space, rather than an attachment or historical claim through usufruct. While the
The literature tends to be curiously silent on the term territorialization. While some have argued that the concept of territory has been largely unexamined (Elden 2010; Badie 2000; Gottmann 1973), there is in fact a surprising amount of work that attempts to deal with just this problem. There is also a related body of work that examines territoriality as a human behavior that is more complex than that found in the animal kingdom (c.f. Sack 1986). While it is not possible to summarize the entire scope of the project to examine the importance of territory, territoriality, and territorialization in the literature, I will first discuss what I consider to be dominant themes. After this brief analysis, I will expand my argument to say that of the possible fields of study, I believe that territorialization, rather than territoriality or territory, offers fertile, but largely unexplored ground to cover, specifically for the potential of liberatory politics in recognizing the process, rather than the final form of territory. Drawing from Lefebvre’s (2009b) concept of *autogestion*, which is literally translated as ‘self-management,’ I want to suggest that struggles to territorialize and counter-territorialize a space are a form of political practice that needs further attention.
Why direct attention to the difference in terms? Firstly, I wish to avoid a potential confusion between the concepts of *territory* and *territoriality*. While these two concepts are held to be analytically distinct within much of the geographic literature, I sense some slippage in the ways that the concepts are used, a concern that has been echoed by others (Delaney 2005; Sack 2000; Elden 2009, 2010). Secondly, in the literature it seems to me that the concept of territorialization, the transitive verb form, is given short shrift as either the result of territoriality, or as the moment of creating a territory. Because the emphasis is on the state as the possessor and user of territory, even while conceding that territory operates on multiple scales, many authors seem to end with the state as the final unit of analysis. This blind spot renders territory as a multi-scalar object that is only observed or described at a single scale. Yet, as we saw in the case of the Nariva Swamp, there are examples of territory that fall outside of the auspices of a dominant state (Sletto 2005). Moreover, if our commitments are to attend to this process in ways that expand the concept beyond the ‘violence of the state,’ I am suggesting it is unwise to cede the concept of territorialization to the state alone. Territories may not always be the exclusive province of the modern nation-state, and therefore we should attend to how this is so. Many acts of resistance are re-territorializations that seek to limit the effects of state claims to the bounded space of territory, and therefore it is in our interest to consider territorialization as a practice of resistance to territory that is adjudicated by the state.

While this may seem like hair-splitting, I think it important to attend to these concepts and the ways that they are deployed. I am not alone in this concern, as Delaney (2005) has made a similar argument. I am claiming that thinking about territorialization is
important because this is the active form of producing political spaces, and transforming these spaces into a means of production and social reproduction (Lefebvre 2009a, 174). Rather than a Cartesian container, human spaces are social relations that are caught in the dialectical tension between practice, representation, and spatial imaginaries (Lefebvre 1991), working simultaneously as performance, signifier, and sign. Therefore, the act of claiming a space as a territory, a territorialization, is a political act that both people and states perform, both for and against competing representations of space.

Towards a grammar of spatial control

The first problem that must be addressed is whether territory is exclusively the domain of a state, or whether it also must be reckoned with in a more general form. This is a tricky problematic, and while I think it matters, it is also not one easily reckoned with. Territory is often posited in common parlance as a classic Kantian thing-in-itself, a neumemon that has an existence independent of the senses. It is a line on the map (without specifying exactly what constitutes a map) that represents an inside and an outside. One definition describes it as, “a bounded social space that inscribes a certain sort of meaning onto defined segments of the material world” (Delaney 2005). While this definition moves towards the more general form, it also leaves open to interpretation which forces should be analyzed that seek to define the boundaries. The common usage of territory as an object also results in a certain imprecision in literature related to International Relations, leading to what Agnew (1994) calls the “territorial trap.” This trap assumes that territories are an unchanging entity that either exists or is wiped away by a new
territorial formation, with internal relations that can be held separate from external relations. This leaves the idea of territory embedded in modernist notions of a Westphalian sovereign in which, “Conventional thinking relies on three geographical assumptions- states as fixed units of sovereign space, the domestic/foreign polarity, and states as containers of societies” (Agnew 1994). Control of territory in this case is further conceived as the thing that gives rise to sovereignty in international law (Gottmann 1973), but also the space in which a state reserves exclusive control (Agnew 2000c).

While arguably territory is instead a phenomenon, or perhaps an apparition produced by human agency (to borrow term from Deleuze), it is not often treated as such, as we shall see. For example, immigration debates center on people entering a territory with objective borders against the wishes of people within the territory. This is not because territory actually exists outside of social relations, but because it can be proposed as an object to be objectively observed through the production of space (Lefebvre 1991), on a map that reifies the spaces in question (Pickles 2004; Wood 1992a, 1992b). The Dictionary of Human Geography also notes that territory can be used metaphorically, and also sometimes interchangeably with place and space, or even a region (Agnew 2009b, 2000c). While these metaphorical uses are helpful in thinking our way out of territory as a stable, juridically bounded object, territory is too often assumed to be the province of a state, which as noted above, has ramifications for people outside of the state power mechanism. Even in explanations that suggest that power across space in the era of globalization no longer fits into the model of a state as a container, power is usually seen to reside in the state. While other groups may indeed have territories, such as
corporations, territory is often described as a power over space exerted from above (Agnew 2009b). This can be seen in the way that the term territory is deployed.

For example, the failure to have a robust modern state form and clearly delineated territorial boundaries has had impacts on indigenous people in their efforts to maintain control of their historic homelands (Chmara-Huff 2006). This is precisely because uneven power relations have allowed the term to become embedded in the western state-based notion of territory, rather than simply being the result of human territoriality and efforts at spatial control. Because the indigenous people lacked both the technical capacity to control and measure space, and the political necessity until the 20th century quieting of titles actions (c.f. Indian Claims Commission 1974), they are not part of the modernist regime that allows them to claim a territory (Elden 2009, xxvii). This is not to say they did not exhibit territoriality, but that their claims to territory do not fit into the present juridical notions of state territory.

Territoriality is social relation and a way of thinking about spaces that is undertaken by individuals or groups to control spaces, to the exclusion of other groups or individuals. As a social relation it allows us to unfix territory from the province of the state and make it a mobile aspect of social life (Delaney 2005). Sack (1986) specifically defines territoriality as “the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by asserting and delimiting control over a geographic area.” While this definition could be read to leave territoriality as a somewhat open question, as I in fact do, it has been suggested that territoriality is mediated by “normative orders” that restrict behavior within groups (Herbert 1997). Sack further
suggests that territoriality always operates on a specific scale, which Agnew questions in light of complex territorial organizations that operate on multiple scales (Agnew 2000b), showing a tendency to scale up in thinking examples of territoriality. When practiced, territoriality appears to produce territory, making it difficult to capture except through the territory as an inscribed object in a spatial field.

I would suggest that territoriality is perhaps better conceived as a representational space, tied up in a complex cultural and individual histories that are fluid but can also be dominated by their own representations (Lefebvre 1991; Chmara-Huff 2006). Elden (2009, xxvi) however argues that territoriality “…lacks specificity and analytic purchase in targeting the specific relation between place and power that is the modern state’s sovereignty over its territory.” This formulation does not say that territoriality doesn’t exist beyond the scale of the nation-state, but that Elden’s examination is only interested in how territory operates at a specific scale, as specific historical category (Elden 2010). However, Steinberg (2009) notes that this requires an inward looking view of the state, that overlooks the fact that territories cannot exist with internal coherence without the recognition of a sovereign state from the outside, a position that requires analysis beyond the closed nation-state, in order to escape Agnew’s (1994) territorial trap. This view of an outside and an inside echoes post-colonial literature that suggests the production of the West is only accomplished by the production of the other (c.f. Said 1978). As Sack (1986) has made quite clear, territoriality as a behavior operates at multiple scales with different effects in different social formations, and this suggests that territoriality from the outside is constitutive of territory on the inside as well.
This is in part because expansion of geographic technologies, beginning with the cadastral surveys of Westphalian states and culminating more recently in Geographic Information Systems, has led to a state driven view of the world in which space and territory can be made intelligible to the modernist project (Wood 1992b; Pickles 2004) with an inside and an outside. While a number of studies that try to capture things such as territoriality as practiced (e.g. St. Martin 2001; Stoffle and Halmo 1988) have produced alternate representations of territoriality within the nation-state, transgressing the normative view of nation-state territory, they are territories without legal standing unless granted by the nation-state. In the end, it appears they can only inscribe a territory that is sub-altern, produced by the act of counter-mapping (Pickles 2004, 146), with varying degrees of power.

Regardless of scale, territoriality is a however spatial conception that is enforced by multiple social groups or individuals. The appearance and disappearance of these phenomena suggests there perhaps should be a temporal element in the recognition that boundaries always may be permeable and fluid, subject to at the very least a time-space geometry (Massey 1993), which needs to account for changing power relations as well. As enforcement capacity and territorial acquisition as an apparatus of the state changes over time, so should territoriality. As we shall see below, the shifting terrain of territory and territoriality over time becomes important in a variety of ways. For instance, the varied recognition of indigenous people’s territoriality through treaty making has a different character than negotiations for quieting of titles with a colonized people, who may have suffered displacement over time. These boundaries have a history, permeated
with power relations through which territorially is used for different purposes. These spaces are what Lefebvre (1991) calls representational spaces, built up over time that then become subject to representation as territory.

_Territorialization_, in contrast to territory and territoriality is an active spatial practice. Linguistically, it is a noun based on a verb that suggests action is needed to make the noun (Delaney 2005). However, territorialization can also be classified as a transitive verb, suggesting that it directly affects an object, namely space, and has a subject in those people who are trying to exert control. Territorialization is the attempt to realize territoriality, through the enforcement of the idealized boundaries of territory. In short, territorialization is the process of territoriality touching down. Territory can become manifest on the landscape through the creation of physical barriers such as fences, checkpoints, and jurisprudence to legislate the location of boundaries in a variety of forms, all enacted as territorializations. While much of the present literature on territorialization focuses on the negative instance of outside forces causing deterritorialization in a global system, or the affirmative case of re-territorialization, they are both territorialization. Whether a state is devolving power, or a new nation is formed as a result of said devolution, the process at play is still the act of changing power relations and control over a space (Agnew 2009a).

While the examples of fences and checkpoints are concrete in their materiality, there is also the case of territoriality that is not successful. If the capacity to enforce a territory does not exist, resulting in a competing (and victorious) territorialization, the territoriality of the people who hold the original claim to space does not necessarily
whither away. People may resist competing territorializations through a variety of practices, engaging in criminalized uses of the territorialized spaces, performing a re-territorialization through entry and use in ways that the regulators of a recognized territorial claim prohibit. While it is unwise to claim that all transgressions of the territorialized space are in fact active attempts at re-territorialization, they do however contribute to a deterritorialization and provide the fertile ground for alternate claims through spatial practice (Deleuze and Guattari 1987).

If territory is not fixed and can be transgressed, this suggests that while any territorial control can be viewed as temporally fixed category, it is also perpetually subject to new territorializations that can transform territory from an object into a subject. This is the result of the interplay between territoriality and the representation of spaces as territory; it is in fact territorialization in action. Further, when territorialization is deployed over any area, it has implication for things on both sides of the boundary of the territory. Those outside are deprived of access to the resources and social relations within the territory, and counter-territorializations can arise in response.

It is well recognized that the idea of a closed territory is absurd; for example, states can and do act beyond their territories (Gottmann 1973). To think otherwise is to fall into the territorial trap (Agnew 1994). However, if territoriality is accepted as a general and diffuse human behavior performed by individuals and groups (Sack 1986; Delaney 2005; Elden 2009), then the state is not the only agent of territorialization. Boundaries are transgressed on multiple scales, from the individual who crosses a border without permission from the state, to the negotiation of new boundaries through treaty
making. For example, the militarization of the USA-Mexico border has not negated the historical labor migration patterns in the region; it has only made these economic relations more complex. Similarly, while United Nations Convention on the Law if the Sea (UNCLOS) had established both territorial waters and exclusive economic zones in the ocean, it has also mandated a renegotiation of the definition of coastline into a closed polygon, rather than following the patterns of erosion and expansion of landmass, changing the shape of the territory. This treaty also cannot eliminate historical labor patterns, as neighboring countries negotiate new oceanic boundaries that must account for historical resource extraction brought to the table by sub-national groups. While the boundaries are posited to be of the state, the patterns of practice are maintained by groups and individuals beyond the state, and maintained as part of a historical territoriality that is performing a territorialization of the ocean, which can also be deployed to support or negate state claims.

While it is tempting to follow Deleuze and Guattari (1987) and suggest that deterritorialization is taking place in the new global order, it is important to note that their discussion claims that all deterritorializations are accompanied by re-territorializations (see also Elden 2009). For while some deterritorializations can be viewed as removal of the state, it can also be said that a new “apparatus of capture” is also deployed that leads to a new territorialization through capital, NGOs, public-private partnerships, etc. (Ogden 2011). While these re-territorializations are an assertion of a different power relation, they are still usually within the bounds of state power. While power can be devolved, it is rarely granted outright. That is not to say that re-territorialization cannot be a form of
resistance, but that it is usually resistance within limits that can provide what Deleuze and Guattari call a ‘line of flight.’ A territorialization is never perfect, precisely because that which is enclosed can take advantage of lines of flight and seek a re-territorialization that changes power dynamics.

When a territory exists, those things enclosed are managed by the controlling entity, whether those things are animal, vegetable or mineral. This includes the management of people as territorialized populations. Much of the geographic literature I have read regarding territory and territoriality is in fact responding rather to the effects of territorialization, as active process rather than reading spatialized objects on a map. Rather than a territory, the historical approach identifies territorializations over time. While this is what Agnew (2000b) appears to be referring to when he speaks of putting territoriality into practice, I think it important to distinguish territorialization (or in Deleuzian terms, re-territorialization) as the active form. I am arguing that territorialization as practice takes place on multiple scales, and therefore may offer distinct political possibilities that cannot be deployed if the notion of territory is ceded only in its modernist, nation-state form. Rather than argue for territoriality as a functional mode of operation, or territory as an object, I want to rethink the capturing of space in terms of a politics entangled on multiple scales. While the state will always appear, I am insistent that resistance can take form through re-territorializations from below, that can then seek legitimization.
While none of the authors in the review below have used the specific analytical distinctions I have drawn out above, both Gottmann and Sack made an effort to distinguish conceptually the beast about which they were writing. As mentioned above, Robert Sack (1986) in his book “Human Territoriality” took pains to parse out the distinctions between territoriality in general and human territoriality in specific in order to provide a more robust theoretical concept. Similarly, Jean Gottmann (1973) in his book, “The Significance of Territory” took pains to analyze what he saw as an under investigated concept, namely territory itself.

When Gottman published The Significance of Territory (1973), he was drawing attention to a perceived theoretical deficiency in geographic thought. He argued for a conception of space that provided friction beyond the simple metrics used by spatial scientists, such as distance decay and topographic features between given spaces filled with things. He conceived of territory as a largely unexamined phenomenon worth of serious consideration in terms of its character, history, and effects. In both his introduction and concluding chapter, Gottmann refers to the “psychosomatic phenomenon” within a community that produces territory, and this choice of words offers a certain analytical power. While Gottmann refers to the psychology of groups when he makes this claim, it is possible to also read psychosomatic as a metaphorical parallel to its medical meaning, meaning territory is a symptom of a false belief that then results in a physical manifestation. We think it exists both as individuals and collectives, and therefore it does, and territory therefore must be respected.
Through this simple claim of the psychosomatic character of territory, only repeated 3 times in his book (and left largely unexplained), I am claiming that Gottman was pulling the rug out from under the concept of territory. He demonstrates that the concept has a history, and while it is treated as stable in law today, he shows that this hasn’t been true over time. Territory and how it was respected and codified has depended on local circumstance and societal needs, with considerable variation across time and space, until fairly recent history. Gottmann’s insight has been repeated (often without direct citation) within the geographic literature by a number of authors who wish to contest the idea of territorial problems as being between territories (cf. Agnew 1994, 1999; Cox 1997; Taylor 2003; Elden 2009, 2010).

Gottmann’s history of territory explores the history of the idea, and shows that the form we use in law today is a relatively recent development with roots in the 16th Century, and finally codified in the 17th through the Treaty of Westphalia (1973, 44-50). It is on the basis of this treaty that the ideas of sovereignty and territory have become intertwined so that each speaks of the other conceptually. Territory, as Gottmann sees its existence in the legal realm, is one aspect of the tripartite modern state of territory, people, and economy. It is the site of the other two aspects hitting the ground, as it were. This is a claim that Foucault was echoing in his lectures shortly afterwards through his examination of the history of governance and biopolitics in his lectures between 1975 and 1978 (e.g. Foucault 2007, 2003). People are managed within territories, through biopolitics and technologies of governance within sovereign bounds. While Foucault seemed to suggest that with the advent of modern governance, territory became a less
important dispositif, Elden (2007) notes that the technologies of governance that make it possible to manage populations are also technologies that allow for the calculation of territories.

 Territory is in fact a technique of governance in the modern era, rather than a bounded space with an independent existence (Elden 2010). Governmentalities to direct the “conduct of conduct” are deployed within nation states, and defense of territory from threats both external and internal are part of this mode of governance. While I would suggest that the relationship between territoriality and governmentality could in fact be a positive force in some ways as the example of the Nariva Swamp illustrates above, for now I wish to merely mention that Foucault was in his own way addressing this problematic. The important thing that can be drawn from both the work of Gottmann and Foucault is that territory and the things within, as we conceptually use and map it today, has a history, and this is not as neat as the popular usage would lead us to believe. Modern states appear to have deployed the concept of territory as an apparatus of control, rather than territory being the fertile ground on which the modern nation-state arose. So while the current conception of territory refers to something of the state, it is not necessarily so. Other territorial forms have and do exist, despite the modern juridical notion of territorial control.

 In his penultimate chapter, Gottmann questions how, in light of this history, geographers can treat territory as a closed political unit, a container that then interacts with other containers. While Elden (2010) suggests that Gottmann has produced a sense of territory in an “undifferentiated historical sense,” there is some question as to whether
this is too bold an assertion. Territory is instead, Gottmann claims, a relation between people and their space that has a history. This relation changes over time as accessibility to resources and people change, always with the idea of the territory in question as a base for the “good life” (Gottmann 1973, 123). Through this relation people and governments seek to achieve security within their borders. But the modern concept of territory, and the ways that people think about it, is entangled within the modernist project of the governance of people. State territory is not fully transhistorical, but its history has led to a modern juridical form that has not been interrogated as a historical artifact. Granted, Gottmann is writing about the construction of the modern state form, rather than territory in general as an extension of human territoriality, but in some ways so is Elden with his interest in how it came to be exclusively the province of the state in law.

Gottmann was writing at a curious time, because the control of space was changing in character due to the threat of mutually assured destruction, the proliferation of satellites in space, and exploration for resources on continental shelves due to the oil crisis. While space is indeed partitioned as territory, he sees the stability of the concept of territory as being in question, in light of these technologies and policy arenas that change accessibility and limit the assurance of security. Territory is now played out at multiple jurisdictional levels, making for a chaotic and plural object that escapes a simplistic state as container territorial model (Gottmann 1973, 154-5; see also Johnston 2001). As Elden (2009, xxii) notes later, the changes of the 20th century mean that territory is no longer an area, but a volume.
As an illustration, Gottman turns to the territorialization of the sea, and the debates about landlocked states arguing for a right to portions of the ocean through the “international social function” (pp. 155-6). This example again points to the psychosomatic character of territory, in that states as sovereigns, are arguing for a portion of that which has not yet been territorialized. States seek to claim access to non-contiguous spaces, as a claim to space for exclusive use and control. This however also points to the idea of the permeability and pluralism of territory, and the ways in which territorialization comes into focus. The question of why a state with no coastline be able to secure a territorial claim in the oceans, as raised by Gottmann, is also later addressed by Steinberg (2001). The history of who legitimately can make claims to the oceans also resonates within the current debates about rights to the atmosphere that surround the issue of CO₂ emissions, and the rights to the sovereign to pollute within their own territories, perhaps to the detriment of the rest of the world. In order to understand these debates, territory must be more than a container, and the extra-territorial world must also be considered (Steinberg 2009).

_Sack’s Contribution_

However, if territory is not as stable as it has been treated, how then can we conceptualize the control of space, if not through discrete sovereign entities? The answer appeared (for some) to lie in the theory of human territoriality. As noted above, Sack (1986, 19) defines human territoriality as “the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by asserting and delimiting
control over a geographic area.” This definition allows for a certain amount of fuzziness, which Sack willingly concedes, but he notes that the definition he offers is broad enough to account for most cases. He is also concerned with what territoriality allows people to do based on this definition through three independent relationships. Territoriality means that people can classify by area, it calls for a form of communication, and some attempt at enforcing control. He then goes on to work through territoriality as a concept by elaborating the ways in which it can appear, always as an area, but usually also as a type following a classification scheme adopted from Piaget (Sack 1986, 21).

In conceptualizing human territoriality this way, Sack is explicitly addressing what he sees as deficiencies in past research. He distinguishes human territoriality as different from the instinctual territorial behavior of animals. This distinction points to a socio-natural divide that echoes Heidegger’s (2010) assertion that while other organisms may be said to experience the world in a limited fashion, only humans are capable of making and thinking the world. Human territoriality is different precisely because it is inherently political in nature, calling for interaction among and between social groups. While I think this is technically correct, I question his reinforcement of the human-animal divide that has dominated Western Philosophy and socio-natural relations (see also Elden 2010). For if territoriality exists in a general form, through the enforcement and creation of boundaries, can it be said to truly differ from animal behavior? The notion that human territoriality differs seems to arise from the conclusion that the modern territorial form, which is intricately bound to the state, is in fact different from making a claim to space through animal behavior. Sack appears to be making a claim that suggests that the
modern form could not have arisen if humans did not have something essential about the way they approach territoriality, suggesting that the state form is not the historical precedent, but just the current hegemonic form.

Sack claims that there have been three errors in the history of theorizing territoriality. First, he notes that prior research has confused the term territoriality with spatial as equivalents (also a concern raised by Gottmann, but Sack does not cite him). Sack notes that many actions in space described in much of the literature are in fact territorial, and therefore geographers miss an opportunity to explore what is really happening, or else misconstrue spatiality as territoriality and “cognitive territories” (1986, 23). Second, a number of studies of human territoriality do not recognize them as such, such as those that relate to zoning, property, and political sovereignty. By classifying these phenomena as objects without considering them as territory, Sack argues that analytical rigor is lost. Finally, Sack is also concerned about studies of territory that are too narrow in scope, focusing on individual behavior rather than thinking about the wider forms of territoriality that interact with individual behaviors (1986, 24). This has the effect of reducing territory to an instinct and feeds his first critique, or else results in broad generalities that say little about territoriality beyond its existence.

Sack sought to overcome these deficiencies by moving beyond the marked space of territory as an object, towards the intent of control of spaces as the defining moment of territoriality. Simply put, while all territory is spatial, not all spatiality is territorial. At the time of writing, Sack maintained that geography had historically overlooked territoriality in favor of space. Space was filled with things, and ordered patterns were sought, but
spatial analysis did not explore relations between space, power, and behavior that form territoriality. Instead it posited an order of things in space with little explanatory power, a thankfully short-lived trend in political geography (Johnston 2001). The logics of territorial control had not really been explored, according to Sack. Later work by geographers which deployed post-structural and Marxist frameworks through concepts such as governmentality, biopolitics, Lefebvre’s production of space, and even the Deleuzian rhizome appear to be attempts to overcome this failure, in response to Sack’s critique. For Sack recognized that territoriality (like economy), is embedded in social relations and socially constructed. “Territoriality, then forms the backcloth to human spatial relations and conceptions of space… Human spatial relations are the results of influence and power” (1986, 26). Because of this, Sack argues that a historical perspective is needed to explore the changing relations of power as it plays out of space, noting that different contexts provide for different effects of territoriality. My reading of Sack suggests territoriality is different from marking space with boundaries, or a sense of place, precisely because it is enmeshed in power relations and efforts to control things on both sides of the border. It is a social relation of power that plays out in a spatial field.

Because the social context may change the effects of territoriality, Sack posited that territoriality has tendencies and configurations, but not in the predictive sense. Effects occur, but they are not simple relationships, because people respond to territorialization, instead of just reacting like chemicals. Sack expands his definition of

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14 Smith’s (1984) notable quote resonates here: “How can we take it all so seriously, when it contributes so little to the improvement of the human condition? Most geography is inconsequential claptrap, and never more so than during the quantitative revolution.”
territoriality by noting that the three facets of classification, communication and enforcement of access can then combine with seven effects (reification, displacement, impersonal relations, natural space clearing, molding, conceptually empty place, multiplication of territories) to form 24 configurations of territory. While his framework appears somewhat rigid (Agnew 2000a), what Sack illustrates is that the social context is key to understanding territoriality and its practice and manifestations. Sack claims that territory cannot exist without people and a social context, unlike other geographic concepts such as distance.15 Social contexts are where territorial relationships are constituted, and this makes for easier abstraction into tendencies and effects, rather than absolute laws. However, territoriality can have normative effects, people will attach value judgments and treat its effects as real (with shades of Gottman’s psychosomatic character). By recognizing the potential normative effects within his theory of territoriality, Sack is seeking to avoid having to create a procedure for judgment as to which territorial forms are ‘more’ valid.

In light of the changing theorization of international politics and the theorization of territory and territoriality, Sack’s contribution was revisited as a “classic” in 2000. While Agnew (2000a) has high praise for Sack’s contribution, he suggests that it may be time to move beyond his framework because it is “insufficiently historical” (p. 92). As an example, Agnew critiques the stability and importance of territory. Further, he points to

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15 Sack’s claim in this case is notably Cartesian, assuming that distance exists without someone to measure it using a socially constructed system. This is a problematic assertion, in that arguably all geographic concepts are constructed. Things may be relatively less close together, but distance is a measurement by people.
the lack of the question of scale within Sack’s work, and following Cox (1998) suggests that nested hierarchies of territories are inappropriate for analysis. However, I think that Agnew is too intently focused on the examples Sack used to illustrate territoriality and the territories they produced. Indeed, Paasi (2000) suggests that the usefulness of Sack’s contribution comes from the openness of his theory to providing research agendas (p. 94). By definition, territoriality is part of an active process, suggesting attempts to close space may always be in process. That is not to say that Sack himself respected that openness in his book, as he uses a spatial analytic that results in typologies that do seem to close space, and Paasi further suggests the world is more complex than Sack’s matrix of territoriality allows for.

Sack’s response (2000) to Agnew and Paasi is that he has already expanded upon what he was trying to describe in his studies of *Homo geographicus*. For the most part, he concurs with Paasi and Agnew in their critiques, from the limits of his examples, to the ways in which territoriality seems to close space. He does this by distinguishing between primary and secondary places. Primary places are those areas which people try to bound and control through rules, while secondary places are simply locations. Sack asserts, “primary places are territories, but more broadly conceived” (Sack 2000, 96). Primary places account for not only territory, but also the intersection of “nature, social relations, and meaning” (ibid). Territoriality is then only one spatialized component of a wider network of relations that are constantly transforming a primary place. Territoriality is effective of territory, but only in relation to interests and intentions, as well as our positionality within social relations and the meanings within (p. 98).
I wish to offer one final point of clarification about Sack’s theorization of human territoriality. While territoriality can be conceived as an intellectual ‘space’ outside of theories of power or ethics, territoriality will tend to have normative implications. For example, competing claims of territoriality within specific social contexts may be judged as good territory and bad territory, depending on the social ends in mind and structures of power. A territoriality conceptualized without consideration of power relations still presents an inside and an outside, and relations across the boundary will eventually evolve into a power relation (Steinberg 2009). Further, the normative effects of territoriality will always lead to a search for the “best” kind of territoriality for those on the inside.

Re-linking Territory and Territoriality

While the analyses above drawn from Gottmann and Sack are useful in thinking through the stability of concepts such as territory and territoriality by questioning the nature of the concepts, they are still somewhat rooted in a scalar politics. Even within more recent accounts, there is a tendency to focus on a specific scale. Territory has become through historical circumstance attached to the scale of the nation-state, and territoriality appears to be a more diffuse analytical framework. Yet, this diffuse nature can also be directly read as part of the apparatus of government. Territoriality, as practice, can be seen in the discourses of sovereignty and nationhood. In contrast, it can also be seen in the discourses of property rights. Territoriality breaks loose of the scale of the nation-state and allows us to see claims to territories at multiple scales in a variety of
forms. Many of these forms are certainly at the whim of the modern territorial nation-state and the way it devolves management of its territory. According to Sack (1986), this devolutionary practice is linked to the practices of the state that designate areas they control, without designating what is contained in the territorial area. This is advantageous to the state because by claiming jurisdiction the state can avoid specific limiting claims to what it is that is possessed within territorial bounds. Control of a space means that everything within the container of a territory falls under the jurisdiction of the state and therefore no listing of chattel is required. Population and economy are folded into a space, and governance is simplified. The power of capital in its fixed or mobile forms, states, global networks that touch down in fixed areas, these concepts offer a politics that interrogates territory and territoriality, but it can be argued they still serve to reify territory and its effects, albeit in a more complex and less stable form.

This however opens a path into thinking about the ways that certain scales of territoriality are deployed from a position of power, and the instability of their spatiality. That is not to say that there does not still exist the residual of a politics that cannot leave behind certain hegemonic power relations. Yet, the ways that states operate as territorial powers allows for other territorializations, within limits. This is the argument put forth in the critique of the usefulness of hierarchical scale (Marston, Jones III, and Woodward 2005). Marston, Jones and Woodward are concerned “…that hierarchical scale comes with a number of foundational weaknesses that cannot be overcome simply by adding on

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16 These hegemonic power relations are perhaps best described (following Gramsci) in the sense of ideology that is cast as common sense, known by everyone; perhaps even psychosomatic, as Gottmann might say.
to, or interrogating with network theorizing” (2005, 417). They call for a flat ontology to
resituate the thinking of spatial politics beyond the closed spaces offered by thinking
hierarchical scales that then play out on the ground, and by extension do away with
territory as a useful frame of analysis. Instead of attention to a “local” situated within
networks of hierarchical power and forces that work to close spaces and possibilities,
Marston et al. suggest that we should instead turn our attention to a “site ontology” of
sites caught within a contextual milieux with varying degrees of organization (p. 425).
Drawing on the works of Schatzki and Deleuze, Marston et al. want geographers to attend
to events and the ways that things congeal to form sites in order to avoid
predetermination through our use of concepts such as territory (p. 426). This is a political
project, a call to undo the dominant way of thinking about spaces and their social
orderings in order to effect a new politics of space.

*Territorialization in Practice*

I wish to now attempt to re-ground my analysis and turn attention away from the
literature on territoriality and territoriality. While I have only highlighted some of the
relevant literature, I think I have illustrated some of the complexity in engaging these
subjects, through distinct attempts to theorize it. I think it important to theorize territory
and territoriality precisely in order to grasp the third moment, that of territorialization as
the significant object of study. The politics of territory and territoriality are actually about
the constant process of *territorialization*. This is an unstable project because, as we have
seen, territory and territoriality are in fact contingent. In my introduction, I suggested that
perhaps there was the possibility of a liberatory politics in thinking about territorialization as practice. Territorialization offers political possibility in those moments when territoriality from below counter-territorializes and asserts a different power relation than the statist mode of thinking territory offers. While in some cases, these re-territorializations may be driven by unrecognized territorial claims held by people or groups, it is also possible that an attempt by a state to territorialize an area may result in re-territorialization where no prior claims exist. In this second example, territorialization is a response to a taking by the state, territoriality as a response to territorialization where no claims to the control of space were made before.

In essence, territory is a where, territoriality is a what, and territorialization is the how, the object of analysis that I think we as geographers should be keeping in our sights. For rather than competing territorial claims, I think there is a third possibility, that the act of territorializing will call forth other territorializations. Dependent on the power relations of the claimants, these territorializations will have different levels of success. If geographers were to treat territory as something that is always in process, we might begin to see the politics of spatial control in a different light. We also need to take care in our activities because as geographers our discipline is complicit in colonization through the production of space as practitioners of science (Wainwright and Robertson 2003). There is a danger of making a claim that territory is bound too closely to the nation-state, as it precludes looking at territorialization by non-state actors as anything more than furthering the interests of the state, or capital, or any other powerful entity. The ways that we think about spatial enclosure as scientists are tied to colonial histories, and I am
suggesting that we need not be trapped in that mode of thinking, one that explains the mechanisms and tools, rather than interrogating political possibilities.

While I have a political inclination to agree with Marston et al., I am also concerned that a flat ontology of scale, while striking me as an appropriate as a way of thinking through some problems, forgets about the factor that Gottmann identified, the psychosomatic character of territory. As I said above, people think territory exists, and therefore is treated as if it does, and must be reckoned with; it is still a useful place on which to hang our hats. Imagine trying to convince a state agency, let alone a single actor within the state institution, that territory is only a powerful imaginary. Even if agreement could be obtained, it would immediately be followed by a “Yes, but…” States use territorial claims in order to maintain security for both the populations within, but also the interests of capital, and further the interest of perpetuating the state. These territorializations do not go unchallenged however, and it should be productive to think about this use of a territorial spatial imaginary calling forth further territorializations.

The continual reification of territory is something that cannot be theorized away, and we therefore should attend to the ways in which territorialization is played out as a spatial strategy, and people’s tactics of resistance. Our discipline is enmeshed within the power relations of state centered knowledge production (Häkli 2001), and some branches of it such as spatial science take that role as a core function. Yet those on the critical side can attend to the production of space as territories in ways that make use of it as an important analytic, one that then considers the ways that territorialization creates spaces that operate on specific scales in relation to others. In her critique of the descaling of the
state and the alleged process of “glocalization,” Mansfield discovers that territory and the state have changed form. Through reregulation, and therefore re-territorialization, the territorial state has not disappeared, but only modified the sites of its power relations (Mansfield 2005). While some have argued that the national state is fading away as a scale of analysis, it is important to remember that states can be both conservative and transformative, and are therefore adaptable. Rather than disappearing, they are changing their use of territorialization to capture both moments, and there is evidence to suggest that they always have been depending on whether they are faced with stability or crisis in the social order (Clark and Dear 1984; Gottmann 1973).

I want to suggest that if we are to take the notion of territorialization and its political potential, we should perhaps return with Sletto (2005) to the Nariva Swamp. By thinking about how local power/knowledge configurations are both incorporated by the state in seeking to control a conservation area, and in turn provide new political possibilities for control by local inhabitants, Sletto has outlined the ways that the discourses of rightful control over a space provides people with new political possibilities. The process of becoming the historically constituted managers of a conservation area, and its resultant territorialization, has become a site of resistance to state power. The subjectivity of local people to the discourse of conservation as good stewards, and resistance through adopting these discourses both changed their behavior and gave them power to control both the space and the discourse. Rather than an imposition of state power, the Narriva Swamp has become a site of re-territorialization.
What can we learn from this example? I am claiming that a territorialization such as this one leads to liberatory moments that can be rethought through the analytic lens of territorialization as political movement. Too often in the literature, territory is surrendered to state power, with attention paid to the juridical nature of territory. However, the premise that territoriality is a behavior that exists in both groups and individuals, suggests to me that perhaps territory is never exclusively the domain of the state. The debates about the opposition between property rights and eminent domain exemplify the tension between state territory and individual territories, similarly struggles over control of natural resources on “public” lands complicate the relation between territory of the state and society. I wish to suggest that these moments of tension between the state and society offer a moment best described as territorialization driven by political struggle. While territory is always permeated by power relations (Elden 2010), we would do well to remember, following Foucault, that while force is nearly always the province of the state, power can be more diffuse.

While Sletto makes no use of Lefebvre’s (2009b) term autogestion, I would suggest that perhaps it is useful to think about how it applies to this case. Autogestion can be described as antithesis to state control, with the loose translation as democratic self-management. In contrast to Foucault’s notion of governmentality, a term used to describe the tactics of governing a population or the self, autogestion inverts the power relationship by suggesting that self-governance comes from the self and collectives,

17 It is worth noting that Sletto (2005) and Rose (1999) both conceive governmentality in the way outlined by Foucault himself in his lectures (Foucault 2007) as a technology of governance that can be used in both positive and negative senses.
rather than any set of social norms. Lefebvre makes the claim that rather than reformist (socialist) or revolutionary (dictatorship of the proletariat) politics, we should be seeking a politics of autogestion that is liberatory and democratic. When this is run through the claim that space is political, control of space through territorialization becomes a form of action that can open opportunities for democratic self-governance, and therefore is worthy of further analysis. In this formulation, territorialization becomes an iterative aspect of resistance that takes the form of claims to self-governance, while also resisting other territorializations. The result is an incomplete ‘territory of resistance’ that is a space of active territorialization.

A brief history of ocean territorialization

The story of the territorialization of the oceans is one marked by a gradual increase of state control over its adjacent waters, with uneven developments over time. As Steinberg (2001) notes, for much of human history, the ocean has only been weakly territorialized. Largely, it was conceived as an area of open access, a surface on which trade occurred, and resource extraction was practiced with little regulation. However, over the last few centuries, innovations in governance such as territorial waters and exclusive economic zones have risen within international law to create a surface that is at the very least, claimed as territory by a nation state. This process was gradual in a large part because in order to make a territorial claim, there must be the ability to defend that claim. At one point, due to the size of its empire, Great Britain had the largest territorial waters of any state (Steinberg 1981). This was largely due to the size of the British navy
and the coastal fortifications throughout the empire. Other militarized states and colonial powers also enforced a territorial limit in the coastal waters, but states without this capacity or treaty agreements did not have territorial waters per se. However, in the 20th century a process started that increased the territorialization of the oceans for all nation-states.

While states could claim as defensible various distances from the coastline for much of the 17th, 18th, and 19th Centuries, in the late 20th century a standard of 12 nautical miles was generally agreed upon. Beginning with the unilateral declaration by the United States in 1945 of the rights to all resources on the continental shelf, the modern era saw a series of negotiations for control of the sea culminating in the most recent United Nations Convention of the Law of the Sea (UNCLOS III), which went into effect in 1994. While the legal force of this convention has not been fully tested, with only a few exceptions territorial waters are accepted as 12 nautical miles from the baseline, which is determined by either the low tide coastline, or in the case of a highly variable coastline, a straight line between geographic outcrops. Within territorial waters, states may pass regulations and restrict activities, with the exception of “innocent passage” in effect managing the sea as if it were part of the contiguous landmass of the nation-state.\(^{18}\) In addition, there is a second boundary, known as the Exclusive Economic Zone (EEZ), in which a state claims the exclusive right to grant extraction rights to fishery and mineral resources that extends 200 nautical miles from the baseline. While this grants the exclusive right of extraction to

\(^{18}\) UNCLOS III defines innocent passage thusly: “Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with this Convention and with other rules of international law.”
a nation-state, the ability to regulate non-extractive activities ends at the limit of a state's territorial waters.

The ability to regulate the use of territorial waters, and extraction of resources within the EEZ has uneven effects. While a nation-state can fully police its territorial waters, and may grant usufruct of waters within the EEZ, the ability to police the EEZ is limited. While navigation is completely unrestricted within EEZs, UNCLOS III (Part V, Article 56) gives sovereign rights to a coastal state for exploitation of resources as well as the right to engage in “the protection and preservation of the marine environment” within the EEZ. So while a nation-state may only engage in policies regarding importation and criminal codes within its territorial waters, there is a right granted by UNCLOS III to effect policy to protect the marine environment, which would allow the creation of a Marine Protected Area up to 200 miles from the coastline. If the regulations governing such a protected area include no-take provisions, this would effectively allow a nation-state to create a heavily territorialized environment up to 200 miles from its coastline. This would however require enforcement capacity, and such policies have been more effective in nation-states with a large military-industrial complex, such as the United States (Mora et al. 2009). Many smaller states have found that creating MPAs within the territorial waters are easier to enforce.

As can be seen from the above, Marine Protected Areas are of course embedded within the relation of the nation-state to its territorial waters. They are however part of a broad historical process of territorializing the ocean that occurred unevenly over time. While the modern history of the notion of territory is based on the notion of a sovereign’s
control of its holdings, there is presently a debate around the role that conservation plays in asserting the right of the sovereign. Brockington, Duffy, and Igoe (2008) have pointed to the multiple ways in which conservation policy is currently enacted to offset the ways in which capitalist social relations have degraded the environment, and posited that territorial assertions in the form of conservation spaces have increased with increased expansion of neoliberal markets. Viewed this way, conservation areas in the ocean can be seen as both an assertion of territorial control, and a way to offset the second contradiction of capitalism (O'Connor 1996) which externalizes environmental costs. Yet these externalities are not evenly distributed, nor are the effects of imposed conservation regimes. People who lose access to resources can and do try to reassert rights to control of those resources, as well as the spaces where said resources are found. While these counter-claims cannot be said to be a sovereign territory, the can however be framed as an attempt at territorialization. This then begs the question, what is the relationship between conservation discourses and territorialization?

**MPAs as a Territorializing Process**

What then can all this rumination about territory, territoriality, and territorialization say about Marine Protected Areas, the spatial enclosure that animates this dissertation? In the case of the oceans, because they are weakly territorialized, or perhaps subject to multiple territorialities, this process of conservation territorialization faces strong resistance in many contexts. Yet, MPAs are created with the logic of spatial enclosure that is borrowed from conservation efforts on the land, and necessarily so
because they seek ecosystem sustainability, rather than targeting species for conservation. As we have seen in the preceding chapter, MPAs work in a way that produces a territory in the ocean that can be read as having divergent interests. If the concern is biodiversity, while the subject is marine life, the space is nonetheless produced as a space reserved for science as a test for the precautionary principle. We also saw that in the case of the Miskito Coast, the creation of MPAs disturbed a pre-existing territorial regime, and transformed an indigenously owned space into a state territory. Finally, we also saw that the state can respond to the perceived failures of economic rationality to create a territory that allows the continuation of over-extraction. In all these cases, the ocean is transformed into a territorialized object. Yet, it is not enough to simply pronounce MPAs as a territory and observe that they work as an expression of state power in the oceans, because MPAs perform in multiple ways.

Firstly, it is worth noting that MPAs allow the state to further police waters that are technically already under territorial control. In this scenario, only the territoriality of the state is acknowledged. Discursively, the ocean is held to be a state space reserved for use by citizens of the nation-state, but the state is acknowledged as having regulatory power. The ocean is a blank field in which only the state may territorialize. If for example, the MPA is structured as a no-take zone, rules can be adopted for the protected space that prohibits all entry (BEST 2002). This transforms a territorialized, but relatively open access portion of the sea into a space that only the state may enter, and this prohibition against entry creates what I call a ‘territory of exclusion’. The rights of “innocent passage” encoded into UNCLOS are disrupted when an area is completely
closed, leading to a need for higher profile enforcement. In the most extreme case, a no-take MPA changes navigational routes and creates a sovereign space that is similar to withdrawn protected areas on land. Even MPAs that permit activities such as snorkeling or limited fishing activity can be viewed as an extension of state power into the ocean, as these rules will still be policed (Figure 4). In this case, the MPA produces a more robust territorial formation for the state that restricts access in places that were previously more weakly territorialized. This is not unexpected precisely because as part of state territory, the sovereign right to police is understood within the discourses of conservation practice. This particular form of MPAs as a territorializing construct has been found to be more successful in contexts where the state has a well developed military-industrial complex (Mora et al. 2009). However, in less developed contexts, MPAs are more successful in cases where the conservation area intersects with other territorialities.

![Diagram](image)

**Figure 4: MPAs as Policed Territory**

The case of a sub-altern territory provides the second example of possible ways that MPAs territorialize, and it has two possible ways that state power can be reconfigured through creating an MPA. In some cases, such as the Miskito Coast or the Seri Indians in northwestern Mexico, the ecosystems were targeted for protection using
an MPA by the state due to ecosystem quality (Nietschmann 1997; Sanchirico et al. 2003). However, in these cases the ecosystem health is a product of historic indigenous management strategies, and an indigenous territory existed that the MPA would replace and overwrite. In these particular cases, the MPA works as a re-territorialization to inscribe the waters as the territory of the nation-state, rather than the territory of a colonized people. However, in the two cases above, the resistance to an exclusionary territory created by an MPA produced a different territorial formation. Because it was shown that the management techniques of the indigenous people were responsible for ecosystem health, this traditional ecological knowledge was eventually put into the management plans for the MPAs, along with recognition of indigenous claims to territory in the ocean. This then results in a territorialization, that through the recognition of the rights of people who make counter-claims to the territory of the state, creates a ‘territory of inclusion’ that affirms the rights of people who could have been displaced.

The territorial displacement that could have occurred, instead resulted instead in an affirmation of territorial claims by indigenous people, and the space was re-territorialized by the state as a grant that recognized territorial claims beyond the state, yet within the legal framework of state territory. The MPA worked against the power of the state in terms of exclusive control over its territorial waters, yet still produced a territory that meets the needs of the state in terms of environmental protection. In the case of the Miskito Coast and the Seri Indians, the MPA worked to simultaneously deterritorialize and re-territorialize in an affirmation of indigenous territory, and power has been devolved to a colonized people with territorial claims in the ocean. However,
while these cases provide example of a successful defense of territory, there is a second possible outcome. If the state created an MPA overlaying indigenous territory, but ignored the prior claims, this would result in a loss of the indigenous territory leaving only the state territorial formation of the first case (Figure 5). This does however lead me to the third model I wish to present in the ways that MPAs territorialize the oceans, and that is as a driver of re-territorialization.

Figure 5: MPA as an Overwriting Territorialization

The third case of the ways in which MPAs territorialize the ocean will be explored further in Chapter 6, but it is important to draw out the theoretical implications here. In this case, there is little-to-no historical territorialization of the waters in question outside of the notion of state territory. It functions as a space that is open access for the citizens of the nation, and the existing territoriality is that of a nation-state patrolling its waters for violations of international treaty or violations of national law. Because the ocean is an open access space of the state, MPAs can be proposed that partition the ocean as a part of the sovereign right to control resources. Thus far, it appears that the first case should apply. However, in this case, a portion of the population who previously had no
territorial claims to the sea contests the withdrawal. While it is tempting to describe this as a case of NIMBYism, or perhaps an economic claim, in this instance, the process of trying to establish a protected area calls forth a territorial claim where none existed before. While livelihood is definitely a part of this resistance, the discourse that is constructed in this instance operates on multiple scales to re-territorialize the ocean as “our sea” in response to an MPA proposal. While the dominant scale deployed by local people is always focused on local context, this territorialization also engages the issue of conservation on a national scale by arguing for local practices in consideration of national policy. Local people make claims to the right to use and control local waters, but may also scale up to claim that conservation policy should reflect local practices that led to the ecosystem health that is to be protected. This instance of territorialization is interesting precisely because while it resembles the claims cited in the second case, there is no previously existing territory to be overwritten by an MPA (Figure 6).

![Figure 6: MPA as Agent of Re-territorialization](image)

The potential politics that arise from this third case of territorialization and re-territorialization are interesting, and there are a number of possible results. The first possibility is that the state follows the first scenario of MPA territorialization, and ignores
the counter-claims to the spaces in question and implements an MPA as an extension of state power. In this scenario, the state may target the MPA for heavy enforcement in order to prevent local people from acting on their territorializing claims and effect a police zone. However, in the case of decreased enforcement capacity, such as that found in much of the Global South, there is a high likelihood that the re-territorializing claims of the local people will result in outlaw behavior as they seek to sustain their historic livelihood strategies (Ogden 2011). A second possibility is that ongoing resistance will cause conservation to fail due to organized activity against the MPA. People may petition the government to relocate the MPA, and politicians may try to gain political capital by adopting the petition of the local people. This would then either move the problem to a new community, or in the worst case become the end of protective strategies that use territorial enclosures.

There is however a third possibility that could result from this re-territorialization that could have positive outcomes. In this scenario, the state takes advantage of the territorial claims made by local people to create an MPA that incorporates these claims. This is a similar result to the case of overwriting territorialization, with the exception that there is no territory to be overwritten. Instead, there is a territorialization that only comes into existence when the state attempts to withdraw an area for conservation purposes. Within all these possibilities, the active struggle of territorialization plays out in a ‘territory of resistance,’ whether the outcome recognizes that territory or not.

This new territorialization as political practice hails the concepts of both autogestion and governmentality. By making territorial claims to the ocean as a tactic of
resistance to MPAs, people are seeking to deploy power across space in ways that result in self-management. Should the state decide to recognize said territorializations, this could lead to an MPA as a territorial formation that goes beyond the notion of community-based management. While community-based management seeks to design conservation in consultation with local people, the logic of the first scenario tends to prevail. The state consults, but ultimately territorializes the ocean through the creation of an MPA, and has the option to end consultation, should the people fail to govern their conduct within the rules of the state. However, should the state decide to recognize the territorialization and cede both management and territorial control to a local community, it is possible that people will not only seek to enforce their territorialization, but also develop rules of governance that empower them to become environmental stewards. As the case provided by Sletto above shows, by inserting into the discourses of control over protected areas the idea that local knowledge is a tool for conservation, this in turn can empower people to become the stewards that the discourse they deploy tells them to be. This is a positive instance of governmentality in which the people create their own conservation discourse in order to manage their own resources.

This is a possible liberatory moment. People who have conservation imposed upon their livelihoods often suffer in ways that disrupts their economic well being because conservation practices are responding to over-development in ways that serve to further disempower local people (Smith 1990; Butcher 2007; Brockington, Duffy, and Igoe 2008). Before I can turn to these potentials and the territorializing claims made by the fishers of the Exumas, and the ways I see this process playing out in the debates about
Marine Reserves in the Commonwealth of the Bahamas, I first use the following chapter to examine the ways that people involved in marine conservation policy in the Bahamas deploy their understandings of space and territory in the oceans. I will then use Chapter 6 to examine fisher’s responses to the threat of MPAs, and show how part of the response is a new territorialization brought forth by the threat of losing access to the sea (Figure 6).
Chapter 5: Policy Actors in the Bahamian Context

Environmental conservation practices have long taken the stance that humans are destructive actors, and therefore limiting their activities will improve the environment. This view has a long history, from the writings of Marsh (1965) in the mid-19th Century, who presented humans as a destructive force, to much of the present literature in deep ecology that imagines a wilderness that would function if we could just eliminate human activities (Morton 2007). This tendency to adopt a preservationist stance can be described as one of the aspects of the shorthand term, the ‘habits of conservation.’ I use this term to describe the uncritical way that much of conservation practice within certain technoscientific communities (Haraway 1991; Johnsen et al. 2004) fails to engage their assumptions about the politics of conservation, and the ways those politics serve to disempower local people and enroll them in capitalist social relations under the umbrella of sustainable development (Smith 1990; Butcher 2007). While the tendency to engage in these preservationist habits of conservation seems to be losing traction in some cases, my interest here is the ways in which these habits have certain assumptions contained within that form the basis for MPA policy in the Bahamian context. I wish to draw attention to the ways in which the discourses of the state and policy actors, through their habits of
conservation, contribute to a view of the world that seek to impose certain spatial orders, and assume that the state is the best agent of territorialization in the ocean.

While these orders do not evenly produce spaces across the wider world, as a specific context can be disruptive to their logics, there are nonetheless ideological starting places that could be said to produce habitual tendencies. These habits include not only the assumption that the removal of human activity is a prerequisite, but also assumptions about the nature of governance as being derived from the state, and a tendency to aggregate disparate people and practices under the term “community” (Agrawal 2000).

The state is always assumed within these habits to be the best starting place for conservation activities as the territorial agent, and the nation-state becomes the scale of analysis. While attempting to decipher the multiple entanglements\textsuperscript{19} that lead to these habits is too large a project to undertake below, I wish to directly address one aspect, and that is the way that territorialization, as part of conservation practice, is one aspect of adding legibility and is in fact tied to ‘seeing like a state’ (Scott 1999). I wish to do this by looking at the discursive practices of specific policy actors working to create marine conservation policy in the Commonwealth of the Bahamas.

While the term policy actors can be deployed generally to a broad spectrum of activisms, political commitments, and governance roles, I am interested in the specific formations that are working to legislate conservation through the parliamentary process

\textsuperscript{19} I am drawing on the work of Deleuze and Guattari, and specifically their use of the word \textit{agencement} (layout) and the concept of the rhizome to suggest that any single way of ordering the world is always entangled with others, and therefore any attempt at legibility can only be partial (see Deleuze and Guattari 1987). See also Ogden (2011) for a reading of how environmental policy is entangled within a complex of territorialization and re-territorialization that renders the legibility of policy decisions incomplete.
in the Bahamas, or else influence that legislation. I use the term ‘policy actor’ here precisely because they are all active in trying to effect environmental policy, that is, the policing of the environment. The primary policy mechanism that has been discussed for the last 13 years in the Bahamas has been the creation of Marine Protected Areas that serve to territorialize the ocean, by creating zones of control and exclusion in places where an open access regime had historically prevailed.

When I first began studying the creation of Marine Protected Areas (MPAs) in the Exuma Cays, Bahamas I directed my attention to studying the responses of the inhabitants of the Exumas. In part this was a result of the design of the study for which I had been hired to collect data, and also tied to my questionable preconception that, “Of course governments had to protect environments from the users of the resources within.” Between my growth as a critical scholar and long term experiences in the Commonwealth of the Bahamas, over time I also turned my investigations towards the ways in which people involved in the creation of conservation policy address their roles and reasoning. My interactions with the people involved in the policy process in the Bahamas, despite some differences in the ways they approach the issue of environmental governance, suggest they tend to start from the strong assumption that policing requires the state to act in specific ways to offset threats to health of the environment. It is for this reason that I

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20 I was there as part of an NSF funded biocomplexity project to model the ecosystem of the Bahamas with a number of interdisciplinary teams. The University of Arizona and College of the Bahamas (UA/COB) team, of which I was part, was focused on evaluating what factors are most influential in people’s decisions to accept or reject a series of proposed Marine Protected Areas within the Commonwealth of the Bahamas. The Bahamas Biocomplexity Project was overseen by Dan Brumbaugh at the American Museum of Natural History.
choose to address the many entanglements that surround environmental governance by separating out local people from policy actors as distinct fields for this specific analysis. While I could also develop the story by looking at the ways in which the responses of the governed then can lead to new kinds of governance as an iterative process, my interest in this chapter is precisely in the ways in which the right of the sovereign to govern its territory is a strain that runs through policy discussions in the Bahamas. While environmental science is argued within the policy documents as the driver behind many decisions about the management of the ocean, when the state enacts marine policy within territorial waters, it is nonetheless enforcing a new territorialization based on specific logics.

So the point of focusing on people involved at the policy level is to try to answer the question “What exactly do policy makers think they are doing when they partition the ocean, and what are the roots of these tactics?” I will show that this partitioning is a result of a mode of thinking that insists that someone must “own” the ocean in order to offset over-consumption, rather than responding instead to the problem of unsustainable withdrawals. This then limits the spatial imaginaries that can be deployed, and looks to expertise and the habits of conservation as a way of determining and deploying that ownership, as a territorialization that is tied to the power of the state. The conversations with policy actors showed they were often less interested in the views of the fishers of the Exumas, and were always redirected towards how these subsistence communities could be enrolled to accept conservation areas, and the associated loss of access.
'Spatialized Conservation’ or Territorialization?

This attempt at transforming access regimes into conservation enclosures also begs the question of whether the ocean can be governed in the same ways that states can place restrictions on use of land. As previously noted, the ocean cannot easily be fenced, nor is there a legal mechanism in place to grant exclusive usufruct right to the sea as private property for individuals or group in the Bahamas, with one exception discussed below. These limitations are driving policy actors towards seeking policy instruments that will be effective over time by enrolling people in their own governance (Stoner, Hixon, and Dahlgren 1999), effecting what Foucault has referred to as governmentality (Foucault 2007) in which people respect the policy and effect their own policing. However, because power relations are diffuse in this democratic society without a strong police state, people are resisting these efforts in ways that seem to subvert the state-territorial view held by some policy actors. While the question of how people on the ground view the spaces of the ocean is addressed elsewhere (Chapter 6), the question at hand in this section is whether the efforts to police the ocean are deployed as an extension of the jurisdictional governance of the territory of the nation-state (as the ultimate owners of natural resources), and by extension, whether the diverse set of actors involved in policy creation are using territorialization as a tactic. This question requires a fair amount of unpacking before I can proceed, but it informs much of the discussion to come.

In part, this complexity comes from the diversity of actors involved in the regular planning meetings who are attempting to create a uniform set of goals and actions, drawing on their roles as government officials, scientists, and conservation activists.
While it is tempting to defer only to the logic of a territorial state to explain the ways in which conservation spaces reinforce that logic, there also instances of a competing logic at play proffered by some people in the process, who defer to the idea of local people as resource stewards and rightful ‘owners’ of the local sea. This second logic depends on devolutions of power that while connected to the right of a state to control its territory, also shift the actual control to sub-national groups. This devolution however still relies on the notion that conservation requires a spatial solution.

As I will show, while the state never fades away in the question of ocean governance in the Bahamas, some people who are working to create effective policy are seeking to deploy territories and territoriality that devolve control towards a more diffuse network of power as a ‘territory of inclusion,’ yet still rely on the tactic of bounding and closing space. This competing logic assumes the rights of local people are part of the solution, as long as there is an enclosure to meet the goals of conservation. The problem with this competing logic is this enclosure is not questioned, and it still assumes the ocean should be governed as bounded spaces to replace an open access regime. Inclusion is seen by some people involved in the policy process in the Bahamas as a viable policy, because of the success of this tactic in many areas (Mora et al. 2009), as well as responding to resistance from below, but fails to address why enclosure is preferred to deal with the problem of over-extraction.

Policy, which shares the same root as “police,” is the province of the state, as a mode of relating to things both inside and outside of its territorial bounds, including the ocean as a problematic ‘outside’ (Steinberg 2009). However, in order to police
something, you must address the question of what may be policed where, calling for a territorialization by the state that recognizes not only jurisdiction, but also what powers the police have within that territory. While policy is issued by the state, contemporary democratic institutions often mean that the state does this in consultation with a variety of stakeholders, with varying degrees of inclusion. While some conservation literature suggests that consultation with stakeholders works best when done before issuing rules (National Research Council 2001), there is also an approach to consultation that I have heard colloquially called by a number of people who engage the politics of the environment as, “Decide, announce, defend” (Burningham, Barnett, and Thrush 2006). Consultation in this latter approach is treated as something to be done in response to objections to policy announcements. This appears to be the historical pattern in conservation decisions in the Bahamas, and the failure to engage in proactive consultation prior to announcing the areas slated for protection has led to resistance on the local level against current plans for the expansion of both marine conservation areas.

Because either of these two different approaches to conservation planning involves the partitioning of the environment and an expression of power over an area, they may be called territorial in nature. They are so, whether deployed as a state withdrawal that excludes people (Figure 4), or property with rights of exclusion (Figure 5). In either configuration, the control over a bounded space creates what I have termed ‘territorialization’ which is the active process of trying to control spaces that can result in multiple claims. This is not to say that the notion of territory itself is used in the way that
gives the state control over space within a legal framework, but rather that the efforts to control the spaces in question are a territorialization with an effective politics.

Territorialization in the ocean is both more and less than the declaration of the intent to control a space. This is precisely because it is a process that involves claims and counter-claims that seek to argue for different kinds of control and exclusions. While some scholars have noted that territory is an unstable object, even in its more robust form of the juridically recognized nation-state (c.f. Gottmann 1973; Agnew 1994), this then leaves the problematic of what then is happening when competing claims to the control of space are made that question the extent of sovereignty. Just as it is possible to delink sovereignty from the territorial form (Agnew 2005), I am arguing that it is also possible to perform the operation in reverse, and attend to territorializations that are de-linked from the sovereign, depending on the nature of these claims and who is making them.

While the concept of ‘policy actor’ implies a relation to the state as the legitimate user of force, as we shall see below, there are multiple ways to seek territorialization that while dependent of state force, do not necessarily expand sovereignty. Yet even then, the default assumption is that the territorial state is the best field of engagement, and a logical partner for the development of policy.

*Expert Policy*

Because the dominant mode of operation in conservation efforts has historically failed to robustly question either whether state policies have led to the present health of the environment and should be directly targeted, or the ways that people are directly
dependent on the environment, scientific advisors and environmental lobbyists seem to often make the assumption that the state is proper the mechanism to protect resources from people. This assumption engages the ideology that control of resources is part of the mission of the state, as well as the right of the policy makers, and this assumption then deploys territorialization as the tactic of conservation. This assumption leaves resource users as a threat to the well being of things that should be under territorial control, positing humans as destroyers of nature, rather than considering that an examination of local conditions might paint a different picture. While there is growth in alternatives, such as the push from dissenting experts for community-based management as a possible solution, there is still a tendency to scale up and think about territorial states. This glosses over social complexity with the notion of community (St. Martin 2006), as well as overlooks the complexity in causes of environmental change.

Using the assumption that states should protect resources within their territories, at the end of the 20th century, there was a push led by influential scientists to create large networks of marine reserves around the world within territorial waters. This was a science-based effort to ward off what they perceived to be an impending crisis in the global oceans (Roberts et al. 2001; Roberts 2001; National Research Council 2001). Based on the local successes of past reserves, these networks were proposed on the basis that not only were they effective in accruing benefits to the wider ecosystem, but that they could also be designed with minimal data using the precautionary principle (Roberts and Polunin 1993; Stoner, Hixon, and Dahlgren 1999; Roberts and Polunin 1991; Russ and Alcala 1996). Thus when the Bahamas Reef Ecological Education Foundation
(BREEF) sponsored a workshop in 1998 to explain the potential benefits of a network of marine reserves in the Bahamas, the question was not whether this was the best strategy, but how and where it could best be implemented. According to an account of the meetings published later (Stoner, Hixon, and Dahlgren 1999), workshops were held to explain to policy makers the effectiveness of marine reserves, and then brainstorming was done to determine potential sites to create conservation areas. The purpose of the meeting was to create marine reserves, with lectures from Dr. Craig Dahlgren about the benefits of MPAs, followed by discussions of where to put them in order to mitigate wider threats to ecosystem health. Because the meeting was structured around creating MPAs, discussion was limited about the causes of the threats, instead positing marine set-asides as an easy to implement solution to the problem of over-extraction within the wider Caribbean.

Speaking later, Dahlgren called the response of the Bahamian government “forward thinking” and talked about how the Bahamas was possibly the last stand for the health of the oceans in the Caribbean (Dahlgren 2001). Within the marine reserve proposal there is a jumping of scale that occurs, situating the problem first in the global oceans, then the wider Caribbean, and finally the Bahamas. Yet, neither in my conversations with him nor in his later publications does Dahlgren seem to reflect on the assumption that the territorial state of the Bahamas is the best scale of operation for addressing a problem that he and his co-authors describe in writing as occurring on a wider regional scale (Stoner, Hixon, and Dahlgren 1999). This moves a general problem under the auspices of the nation-state and its territorial waters, and fails to question the
logic behind imposing conservation within oceans that are described as relatively healthy. By jumping scale in this way, marine conservation has been moved into a field of operation that can be assumed to be workable, that of the territorial state. This also precluded the consideration of territorial formations that may appear at other scales, such as the territoriality of fishing communities.

The health of the oceans was stated as a primary factor in deciding on the Bahamas as a field of operation. Ecosystem quality was one of the heavily weighted variables in the scientific analysis, and it provided the initial list of potential MPA sites (Stoner, Hixon, and Dahlgren 1999), deploying a view of a relatively undisturbed nature suitable for protection. The need for MPAs was positioned within the MPA proposal as a defense against potential over-extraction, based on the model of the wider Caribbean. Yet, while no-take marine reserves can be proffered as an effective fishery conservation tool, nowhere in the proposal is it noted that the success of any specific MPA is often context dependent, and there may be a scalar mismatch when deploying MPAs as a solution to fisheries over-extraction (Botsford, Micheli, and Hastings 2003). When Mora et al. (2009) evaluated a variety of fishery management policies, they discovered that while marine reserves can be effective, it is usually in the one of two contexts: either in a nation with a relatively high level of wealth and a robust enforcement complex; or in a context where power over the reserve is devolved to people with a long-standing claim and traditional non-intensive fishery in the area. However, in 1998 the literature largely suggested that marine reserves would be an ideal solution because they are cheap to establish, and have widespread results (Stoner, Hixon, and Dahlgren 1999), using
citations of research conducted largely in a context of high levels of capitalist development. The effectiveness of reserves in Australia, the US, and the UK all provided examples to suggest that setting aside a portion of the sea involved only the action of the nation-state, with near immediate benefits.

From the BREEF meeting in 1998, a list was developed of potential sites in the Bahamas that were thought to be suitable locations for creating marine reserves. Craig Dahlgren, the marine biologist who led the workshops on the benefits of MPAs was recruited along with two other scientists from the United States to conduct a review of the potential sites and evaluate whether the sites met specific design criteria:

- State explicit goals
- Make the reserve permanent
- Make the reserve large enough
- Include a mixture of habitats
- Include habitats critical for population conservation
- Avoid traditional high use areas
- Locate reserves close to fishing grounds
- Locate reserves where non-consumptive use is economically beneficial
- Locate reserves near monitoring and enforcement sites
- Avoid areas with non-fisheries environmental problems
- When possible, use conspicuous geographical features to define reserve boundaries.

(Stoner, Hixon, and Dahlgren 1999)

Of the 39 sites evaluated, a total of 13 were recommended for immediate designation as no-take marine reserves, and an additional 19 were recommended for designation after “education” was accomplished as to the benefits of marine reserves for a total of 20% of the total shelf edge of the Bahamas Banks. Of the sites that were deemed to be unsuitable for protection due to lower scores on the evaluation, ecological

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21 This percentage was reduced to 10% in later management plans (BEST 2002).
factors were cited as the major factor. No sites were rejected on social factors, suggesting that while the evaluation included social factors, ecological health took precedence. In the recommendations, they included a table of sites with their aggregate scores, as well as the statement that, “The Precautionary Principle … dictates that lack of detailed scientific data is not a valid excuse for delaying action crucial for effective conservation of valuable marine resources” (Stoner, Hixon, and Dahlgren 1999, 11; emphasis in original). Therefore a lack of robust information about the social context regarding the establishment of conservation areas, let alone biological data, was deemed to be less important than acting quickly. This forms another habit of conservation, the desire to act quickly to avoid future crisis based on past experience. In two short years, BREEF and three marine biologists had created a marine reserve plan to be adopted regardless of data quality or quantity, on the assumption that simply creating the network would accomplish conservation goals and prove to be a success. This success in part was dependent on re-education to ensure compliance with their vision (Stoner, Hixon, and Dahlgren 1999, 12) that would have people voluntarily agreeing to govern their conduct within the scientific vision of human removal from ocean spaces.

This claim of action based on the precautionary principle no longer seems to hold water, because of the failure to consider what a lack of data might mean for success. While detailed scientific data of ecosystem function may not be necessary to accrue some positive benefits (Lester et al. 2009), a lack of social science data that provides a more complete understanding of the social relations at play has led to resistance in the Bahamas. For one thing, when interviewed, policy actors in the DMR suggest there is a
need for better data, such as who takes what and how much in order to know the
dependence people have on the ecosystem before designating an MPA. The concept of
what makes a “high use area” is unknown, precisely because aside from a study of the
large northern fleets (Broad and Sanchirico 2008), fisheries officers report that little is
known about the fishing practices of smaller scale fishers, other than the total poundage
they send to market in Nassau. Without knowing exactly what the levels of extraction are,
and the areas in which species are targeted, it is not possible to state that any area is not
high use. Similarly, without data it is hard to designate whether an area is “near fishing
grounds” or is placed upon the fishing grounds themselves.

While the concept of stakeholder should include any person who might be
affected by a policy decision, there should be concern about how to weight impacts for
any single stakeholder group, from commercial fishers down to recreational fishers.
Because of their economic contributions to the nation, it appears that in this case, the
concern was to avoid confiscating commercial fishing grounds and cash economic losses.
According to the DMR, there are no historical data available for setting quotas as to what
the environment can sustain from any fishing activity, and household consumption in the
Family Islands is unknown and therefore cannot be considered in the evaluation of
economic loss. Before independence, reports on the agricultural and fishery resources of
the Bahamas identified estimates of harvestable timber, arable land, and included a
census of livestock. The fishery section was always summarized as being productive, and
as a potential sector ripe for expansion, a view that still seems common today. Bahamian
politicians have made statements prioritizing the expansion of the fishery as a potential
source of economic growth (Miller 2011b), since at least the 1980s in both major parties (Dames 2011). In contrast the DMR has been publicizing the need for conservation in light of declining catches and lower prices that drive up efforts (McSweeney 2002; Bonimy 2007). Arguably stock assessments in the ocean have been done recently in an ad hoc fashion, in an effort to address a perceived decline in abundance by a number of scientists (c.f. Stoner, Davis, and Booker 2009).

As a stakeholder impact metric, the initial marine reserve proposal used the presence of commercial fishery vessels to indicate whether creating a conservation area would affect the local extractive activities (Dahlgren 2001). Yet ethnographic data collected in the Exumas suggested that while there is little export activity, a large number of people depend on the sea for their daily meat (Stoffle and Minnis 2008). In my discussions with fisheries officers in 2009, fisheries officers identified a need for better data on the household consumption requirements of fishery products, but also noted that this is difficult data to generate. One researcher who worked in the Exumas with the Bahamas Biocomplexity Project attempted to identify targeted species and catch levels, but failed to complete a single full interview, as it was time consuming and sought to differentiate between fish caught for personal use, and fish caught for exchange (Stoffle 2006). My own experience working with the people of the Exumas suggests that this differentiation is highly variable dependent on stock, effort, and daily economic circumstance. However, it is possible to do a ‘back of the napkin’ calculation to see that if just half of the over 7000 residents were to consume just one fish per day, this would result in an annual consumption of nearly 1.3 million fish in the Exumas alone. By failing
to account for the importance of household consumption initially, the scientific advisory panel created a situation where a no-take marine reserve would result in significant non-cash economic impact. While the scientists used crude social science indicators in the proposal, these were indicators that were deployed to suggest that people might not resist the valuation of the ecosystem by scientists, rather than indicators of social benefits for local people. By creating these territories of exclusion in the form of a no-take reserves in a subsistence economy, the scientific advisory panel unintentionally provoked a territorialization of resistance, as I will show in Chapter Six, people are fighting to make a claim to their economic resources.

*Who Speaks for the Fish?*

While the bulk of my work in the Bahamas has been with the people of the Exumas who have historically not been directly involved in the policy creation process, the study design of this dissertation included talking with people associated with the government of the Bahamas and NGOs active in Bahamian conservation in order to examine their perceptions of the problems with the spaces in question. Institutionally, these actors fall into three broad categories: government officials, NGO staff, and scientific advisors. In some cases these roles overlap, but I will endeavor to compare them on the basis of these categories, as each institutional structure lends itself to the use of certain discursive practices and habits related to marine conservation, notably the state as the creator of conservation spaces, and the destructiveness of ‘fishers.’ Because the state is posited as the creator and curator of conservation spaces, the actors trap
themselves within the discourses of state territorialization and within the logics of established territorial formations, both in the exclusionary and inclusionary senses. Even when dissenting over the kind of territorialization that might be most effective for conservation practices, the habits of conservation are working towards the common end of partitioning the space in order to protect ‘nature’ from humans with solutions that enclose and exclude and effect a territorialization of the ocean.

Before I begin analysis of how these discourses inform each group’s approach to the enclosure of the ocean, I will provide background on the institutions that active in the MPA process, in order to frame the wider argument that despite differences, these actors are effecting a territorialization of the ocean that is reinforced by the habits of conservation. Much of my information comes directly from interviews with people who have worked at some point with the effort to establish MPAs in the Bahamas, however some information comes directly from the institutions’ public information in press releases or institutional histories. In summer of 2009 and 2010, I had meetings with representatives of the Bahamas National Trust (BNT), the Department of Marine Resources (DMR), The Nature Conservancy (TNC), the Bahamas Reef Environmental Education Foundation (BREEF), and a number of environmental scientists associated with either the College of the Bahamas, or US based research institutions, as well as several grassroots activists. In addition, I draw on conversations that I have had with marine scientists, activists, and fisheries officers active in the Bahamas between 2001 and 2006.
Just as it is unwise to refer to the network of social relations that make up a state as a monolithic entity, it is also perhaps unwise to consistently cast all organizations with unequal degrees of power involved in the creation of marine governance in the Bahamas through the shorthand of “policy actors.” However, this shorthand is useful to describe the collection of government agencies, parastatal organizations, scientists, and NGOs active in planning the management of resources in the ocean of the Bahamas, precisely because of the ways they engage with each other. There are some generalizations that can be made about this grouping, as interviewees stated that most of these various institutions do in fact meet regularly to plan and coordinate their efforts. These organizations and agencies are actively working together to try to create a governance regime that hopefully leads to a sustainable fishery. They are not however univocal in how they see eventual success in this endeavor, nor are they entirely optimistic based on failures in the past.

State Agents

There are two primary government approved agencies charged with effecting conservation areas in the Bahamas. Both are granted right of control of specific areas through acts of Parliament, but their institutional structure differs. The Department of Marine Resources (DMR) is a sub-division of the Ministry of Agriculture and their jurisdiction extends to all territorial waters for the establishment and monitoring of fishery policy. They are specifically charged with managing the fishery as a natural resource, including licensing, monitoring, and export certification. Fisheries officers are considered uniformed government employees (along with the police force, the military,
and customs agents) with police powers to enforce regulations that have been approved by Parliament. The laws of the Bahamas grant them arresting powers similar to other uniformed agencies, yet fisheries officers do not possess weapons, a duty reserved for the military and police force. Although they are not armed, one DMR officer confided that there had been talk about giving them sidearms and extending to all officers the official police power of force in cases of fisheries regulation violations. Another fisheries officer expressed a fear of trying to confront fishers he suspects are engaged in illegal activities, such as fishing out of season, because as he puts it, “They all have guns and I don’t! What am I supposed to do?”

According to agency personnel, the DMR is trying to work with Parliament to create a network of at least 20 no-take Marine Reserves proposed by a scientific advisory committee in 1999 (of the original 32), with the goal of self-enforcement due to a lack of manpower to police the reserves. These reserves are oriented towards the goal of managing the fishery, in specific the export fishery product, which is possibly the third largest sector in the Bahamian economy, after tourism and banking (Domroese et al. 2004). As such, the people at the DMR find themselves entangled in debates about the future of resources in opposition to present economic development needs. DMR is the only fully state-controlled entity involved in policy discussions, and they in effect represent the government of the Bahamas when discussing marine policy within the national territorial waters and to some degree the Exclusive Economic Zone (EEZ). In this context, they represent the extension of sovereignty into the sea, and their marine reserves are an extension of state territory.
Based on my interviews with employees at different levels of the agency hierarchy, within the DMR there is a diversity of opinion as to how MPAs are supposed to work, from the idea that local communities have historical territory and therefore defend the sea as Generation Sea,\textsuperscript{22} to the opinion voiced by one higher ranking person that the people will have to follow the letter of the law. Because the stated goal of establishing a network of marine reserves is to avoid ecological collapse following the advice of marine scientists (e.g. Stoner, Hixon, and Dahlgren 1999), there is concern among all the fisheries employees that conservation be effected in some form. There is however careful disagreement as to how that can be accomplished. Two fisheries officers spoke with me of the need for local communities to not only respect the rules, but to act as informants when the rules are violated, in effect governing themselves on behalf of the state. One DMR representative put it more forcefully stating, “The law is the law. People can either follow it, or go to prison.” Yet while this stance represents the right of the sovereign to govern its territory and penalize lawbreakers, other people who work within the DMR recognize that this stance will criminalize large sectors of the population of the Family Islands. Because of the vocal objections to marine reserves in the Exumas and other isolated areas that have been targeted for conservation, many fisheries officers who have been to these locations recognize that a significant number of ‘poachers’ would in fact be people who are fishing for their dinner. While one fishery officer in Nassau confided that he would like to see the MPAs in the Family Islands become areas that only

\textsuperscript{22} Generation Sea is a term used to describe the ways that claims to ownership of the sea mirrors the communal ownership form on the land. This term was used by several present and former fisheries officers to describe the how they saw the responses of local people to MPAs.
allowed local subsistence fishing, this does not appear to be a vision shared by his superiors.

While the higher levels of the DMR seem to be taking their charge to enforce law within the territory and manage it as Parliament empowers them as the best approach, there is also recognition among other fisheries officers that gazetting marine reserves as a no-take, no-entry zone may not be workable from an enforcement standpoint. As one person put it, “We don’t have the budget to put out boats in all these areas. And if people don’t call us to report their neighbors, we won’t know if someone is fishing in the reserve.” He went on to inquire if there might be suitable local people who could assume the role of wardens, or protect the sea as if it were property. So while there is some recognition that the right of the sovereign might not be respected from at least two fisheries officers, the default position within the agency is to assume that the state must find other ways to defend the rules within its territory. Even the idea that local people would serve as wardens still encloses the sea and restricts access, by using local people as police for the marine reserves proposed by the DMR. The people who live near the MPAs are supposed to take ownership of the withdrawal that simultaneously will exclude them.

Parastatal Control

The second agency recognized by Parliament is the parastatal organization, The Bahamas National Trust (BNT), charged with the creation and management of national parks. BNT is officially non-governmental, for while the government approves their charter, their internal governance is through a board of directors, and they can seek
private funds to supplement their budgetary grants from Parliament (Mascia 2000; The Bahamas National Trust 2009). As a parastatal organization, they are empowered to govern specific areas on behalf of the Commonwealth, as a private entity. The BNT came about through the efforts of conservationists from the UK and the US who wished to establish a protected area in the northern Exuma Cays, an area now called the Exuma Cays Land and Sea Park (ECLSP). First proposed in 1955, the park was granted establishment by British Parliament in 1959 under the Bahamas National Trust Act, which set aside 176 square miles for management by a private entity known now as the BNT Committee, an advisory group that was intended to obtain leases but not have regulatory power. While the act established the Trust, title to the ECLSP was not granted until 1964, and some regulatory authority was granted the BNT, such as the authority to establish bylaws and to hire up to 10 individuals to enforce these bylaws (Mascia 2000).

While the exact structure and authority of the BNT has evolved over time, they are now the private entity charged by the government of the Bahamas to manage 26 national parks containing over 700,000 acres of protected land and seabed (The Bahamas National Trust 2009). While they are chartered by Parliament to run parks for the good of the nation-state, their funding also comes from many transnational sources. The park system that they run is also touted as an enhancement to tourism, which is the largest economic sector in the Bahamas, and they actively pursue donations from this sector (BEST 2002; Bahamas National Trust 2008).

The circumstances around the creation of the BNT, as well as their continued funding by transnational sources, gives the trust an interesting role in the creation of
marine set-asides. While the rights to control sea and land areas are granted by Parliament as property, at present the Trust Council also has appointed members from the Smithsonian Institution, the American Museum of Natural History, The National Audubon Society of the US, the Wildlife Conservation Society (headquartered at the Bronx Zoo), and the Rosenstiel School of Marine and Atmospheric Science at the University of Miami (The Bahamas National Trust 2009). In essence, they are a transnational organization with the power to request set aside areas for conservation within the Bahamas using state power, while also not being directly governed by the Bahamian state. Further, their scientific advisors are primarily attached to US institutions. This structure makes parks a contentious space, as some Bahamians see this as a colonial taking (Bain 2009).

National Parks, rather than being withdrawn by Parliament as a government management area or territory, are instead assigned to the BNT as property to be managed as the Trust Committee sees fit. While native Bahamians oversee the day-to-day operations, the Trust is essentially a mechanism for transnational conservation and science organizations to withdraw parts of the Bahamian territory as private property (Mascia 2000). The devolution of territory to conservation property in various forms has a long history on land (c.f. Neumann 1998), with debates about the relationship between the two concepts in the Western canon. This creation of property in the sea presents an interesting re-territorialization. By requesting and being granted ownership of the seabed, the transnational BNT organization now has power over a historically weakly
territorialized space for the purposes of conservation, which in effect grants them powers that the state would usually reserve for itself in the ocean.

While my study was initially designed to examine the effects of the MPAs that DMR is attempting to establish, these efforts are simultaneously paralleled by the efforts of the BNT to establish and manage parks in the Exumas as well. Because these two groups empowered by Parliament are held to be separate (despite the fact that representatives of both note that they plan together), there is an artificial tendency to speak of Marine Reserves as being independent of Marine Parks. Thus the while BNT is concerned about poaching and management inside of the privatized park boundaries, the DMR is concerned with establishing Marine Reserves, without either institution seeming to fully acknowledge that in combination they have proposed a total of five Marine Protected Areas within 100 miles of each other following the narrow island chain of the Exumas (Figure 2).

When the DMR and BNT meet together to talk about planning for the future, they are also joined by a group of “outside experts” consisting of Marine and Environmental Scientists, representatives of two international NGOs and a local NGO with international support. It appears, based on interviews with the staff of the BNT and The Nature Conservancy, that this is an effort to informally coordinate efforts rather than to officially plan together under the auspices of state policy generation. Within the BNT’s strategic planning documents, it is stated that this incorporation of NGOs is part of their long term goals in order to secure outside funding (Bahamas National Trust 2008). The policy
actors I spoke with noted that in general, planning meetings are held with the DMR, the BNT and the NGOs I will describe below.

Non-Governmental Organizations

An interesting category of NGO is the inclusion of scientific advisors as both scientists, and as representatives of their NGO affiliations. One scientist, Dr. Kathleen Sullivan-Sealey, was repeatedly referenced in both government and NGO offices to be present at nearly all of the meetings as a scientific advisor for the government, sharing appointments at the College of the Bahamas Marine and Environmental Studies Institute, the University of Miami Department of Biology. In addition she leads teams in the Bahamas for the Earthwatch Institute. Because of her appointments and expertise, several policy actors directed me to speak with her in reference to the baseline knowledge of the health of the fishery, and indeed she has published extensively on the ecology of the Bahamas. The NGO that she represents, the Earthwatch Institute, is an interesting NGO because rather than trying to directly engage in environmental policy making, it seeks to help generate scientific knowledge to inform policy making, from a ‘neutral’ standpoint. Yet within her scientific reports, she notes that she also advocates to local people for creating protected areas and engages in using volunteers to modify habitat, while also conducting scientific experiments, in an effort to establish the ecology she thinks should be present (Sullivan Sealey 2011).

In addition to Dr. Sullivan-Sealey, Dr. Craig Dahlgren has served as a scientific advisor for many years in the Bahamas, as the former Director of the non-governmental
Caribbean Marine Research Center (CMRC), and appears in official government publications as a consulting scientist (e.g. BEST 2002). Because scientists such as these have served as consultants to Bahamian policy decisions and have advocated that some areas should be set aside for research purposes, they represent NGOs intertwined with scientific community, which as noted in Chapter Three is re-territorializing the ocean in the name of inquiry. In this case, they are arguing that control over part of the territorial waters should be devolved to scientists as a living laboratory with the ability to set and enforce their own rules that would differ from a straightforward withdrawal for conservation purposes in order to prioritize their experimental activities. Scientists find themselves as spokespeople for their affiliations, and as their own political commitments simultaneously.

Despite this argument for conservation areas to be used as living laboratories put forth under the mantle of NGO affiliations (e.g. Sullivan Sealey 2011), in general, most scientists do not see themselves as policy advocates. Rather than an environmentalist approach that assumes the advocacy mantle, science is supposed to be based on an objective standpoint. Yet by providing expertise to policy makers while representing their research funders, they are directly complicit based on the assumptions that inform their work, which often include capitalist overexploitation as a constant, and the assumption that people always degrade environments (c.f. BEST 2002; Stoner, Hixon, and Dahlgren 1999). When a scientist contributes to documents that advocate for specific policies, some of the assumptions they use are stated as facts due to the use of citations to support their arguments, such as the widely cited notion of the “Tragedy of the Commons”
Based on available data, and by seeking analogy in other similar contexts, scientists can then recommend the probable outcomes of failing to address trends or observed practices that degrade ecosystem health. However, whether addressing the possibility of economic crisis due to poor ecosystem health, or simply calling the health of the ecosystem into question, scientists are implicitly involved in a form of advocacy that is tied to their wider political engagements (Adams 2003; Haraway 1991) and the NGOs they list in their credentials. I will return to the question of scientists below, as they are also more than their institutional affiliations in the way they engage policy.

In contrast to the Earthwatch Institute and the CMRC, the other NGOs are decidedly not attempting to maintain a ‘neutral’ approach because they are advocacy organizations. The Nature Conservancy (TNC) is well known around the world for its efforts in pushing for direct conservation efforts and environmental education and advocacy. It is the reportedly the third largest non-profit in the US, and operates in more than 30 countries (The Nature Conservancy 2011). According to the people I interviewed in their Nassau offices, their presence in the Bahamas is a fairly recent effort, and the local office is staffed with people who have previously worked for both BNT and DMR. As an NGO, they do not have direct policy making ability (and I was told by the office director that in recent years the wider organization has deliberately scaled down efforts to create policy) and instead focuses on providing educational and capital support for

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23 Stoner, Hixon, and Dahlgren cite the overexploitation found in the wider Caribbean to be a driver for the need for conservation, in spite of also proclaiming the relative health of the Bahamian ecosystem.
conservation initiatives in the Bahamas. The staff in the Bahamas office of TNC is vocal that while they strongly support conservation, they are also aware that it will not work if it is seen as imposed from above. In essence, unlike the DMR and the BNT, they are advocating conservation areas as what I have termed a ‘territory of inclusion,’ one that incorporates the input and management of local people in the creation of MPAs as a territorializing object, following the recommendations of the scientific literature (National Research Council 2001).

This is an interesting stance, brought about by a long history of TNC engaging in marine conservation efforts with variable success. Their actions in Nicaragua have been roundly critiqued (Nietschmann 1997), and over time their tactics have changed. The people who work for TNC in the Bahamas are emphatic that any conservation effort that does not simultaneously support the needs of local people will fail. At one point, frustration was expressed by a TNC employee at the hard line approach taken by people within the DMR towards marine reserves. She went on to express concern that no-take reserves would not be respected, and therefore fail. Instead, she was interested in the possibility that the local people might have pre-existing fishing territories that they would be willing to defend as conservators of a protected area, and wanted to know if I had such information. This argument for local territoriality also hinges on the need to territorialize the ocean, but takes the tactic that local people should defend their resources against unsustainable fishing practices, creating a territory of inclusion for people who live next to an MPA. Yet this again seeks to enroll people in a conservation plan generated from
the outside, and seeks input to shore up the spatial imaginary of an MPA as an exclusionary tactic.

The final NGO that participates in planning meetings is the Bahamas Reef Environment Educational Foundation (BREEF). This NGO was founded in 1993 for the purpose of educating the people of the Bahamas about the state of their environment. Currently, their proposed objectives include protecting spawning aggregations and establishing a network of Marine Reserves in order to sustain a long-term fishery (breef.org 2001). They engage in activities like holding workshops for teachers and visiting schools to promote environmental awareness, as well as working with scientists to develop accurate information for dissemination.

Their engagement with the BNT marine reserve proposal promotes a territorial form of exclusion, in that they advocate for spaces that are for fish exclusively, through the creation of no-take reserves. My interactions with the people in the office of this small NGO were marked by expressions of dismay from the staff that people were resisting actions by the state, and they advocated fortress conservation in order to conserve the resources of “all mankind.” While their efforts are local in scope, they have international advisors and funding, and based on discussions about them on internet forums, they are also supported by the yachting community.

The idea that local people could manage an MPA was not vocally supported by the staff of BREEF, as there was an opinion stated by one staff member that people left to their own devices will lead to environmental destruction, calling to mind the example of George Perkins Marsh with whom I began this chapter. The input of local people was not
relevant, as the ideas expressed within the BREEF office were paternalistic in their desire to educate people as to why they should be excluded by MPAs. The interest expressed by the BREEF staff into my research results was in how it could help to bring people around to their way of thinking. While their publications and educational mission are indeed important, it is bound to the habits of conservation that seek to exclude people from the environment for their own good.

Grassroots NGOs

In addition to the centralized planning of conservation in Nassau by this diverse collection of policy actors, there are also smaller organizations active in the Exumas. One such group, known as Save the Exuma Park (STEP) has a history of lobbying both for changes in the management of the ECLSP and vocal opposition to the proposed Marine Reserves put forth in 1999 (e.g. Bain 2009). The other active institution is the Exuma Resource Centre (ERC). This multi-use center houses the Exuma Foundation as well as the Exuma branch of the College of the Bahamas. While I will predominantly discuss the ERC’s role in environmental policy action, it is important to note that the mission of the Exuma Foundation is holistic in its approach, being concerned with not only environmental education, but also general education, making sure that food and shelter needs are met for the local communities, and providing space for community activities. From personal observation as a residing researcher, the ERC serves as a hub for facilitating many parts of daily life on Exuma. Because their mission includes environmental education and research, they have served as a hosting site for both local
environmental activists to meet, and a number of visiting scientists who need a local base of support. While they are decidedly not neutral in their advocacy of Marine Reserves, their stance is informed by their positionality as both environmental advocates and members of the community who recognize the need for both local conservation and fisheries.

These local institutions and groups, while definitely under the umbrella term of “policy actors” in the Bahamas form a bridge between the local community and actors at the national level that works to set them apart from both fishers and policy actors. As local activists, they are advocating solutions that think would work locally, sometimes in ways that actors on the national level are unwilling to consider. On the other side of the coin, because they are working to effect conservation enclosures, some locals consider them to be “working with the enemy” to create policies that are unpopular. For example, one such locally led effort was the drive to designate the Moriah Harbour Cay National Park (MHCNP) as an area that prohibited certain kinds of fishing activities and create a nature reserve to serve the tourist industry.

In the design submitted by the local activists, spear fishing using Hawaiian slings and the use of small traps were to be allowed, as many local people provision their households and small restaurants from the area. The people I interviewed who had advocated for the MHCNP insist that it was never intended as a no-take zone, as they say the local people would never support or respect such a designation. However, when Parliament gazetted the park for the BNT, the BNT requested the same rule system that is used in the ECLSP, designating the entire area as a no-take zone. When interviewing the
staff at the BNT, they noted that they have not secured funds for a warden for MHCNP, so at the moment it is a ‘paper park’ in which all extractive activities are prohibited, but without enforcement. When I discussed these rules as they were gazetted with two of the activists who supported and promoted the park in the first place, they told me they are currently trying to get the rules changed, because they recognize that the park boundaries are part of the local fishing range. They hope that by restricting the kind of gear used to Hawaiian slings and traps, they can establish a protected area that can only be used by local people, creating a territory of inclusion in practice. Curiously while these grassroots activists are adopting a stance that encloses the ocean, unlike the policy actors in Nassau they are also concerned that local people need to be accounted for.

_Scientists as Policy Actors_

Because scientists are invited to participate in planning meetings when their input is desired, or even required to report on studies that have been commissioned, I include them as policy actors in addition to their representation of NGOs. For example, the scientists who wrote the proposal for the network of marine reserves (Stoner, Hixon, and Dahlgren 1999) have all taken part in these meetings over the years to report their findings and recommendations, as well as requested that areas be designated for their exclusive use, deploying their affiliations as credentials, but also sometimes representing themselves as experts. In the original marine reserve proposal, it was noted that the fishery extraction rates were likely unsustainable, yet when it came to site evaluation, many sites were chosen in part because of low extraction rates that left a relatively intact
ecosystem (Stoner, Hixon, and Dahlgren, 1999), that would therefore be of value to science and resource management. This is not an apolitical stance. When the discourse of sustainable development of resources is used (BEST 2002), scientists are engaging in a discourse that specifies that the effects of capitalism need to be offset by restricting extraction, often in resource rich but cash-poor regions (Brockington, Duffy, and Igoe 2008; Butcher 2007; Smith 1990). Alternatively, if their political commitments are to a ‘pure’ ecology that seeks to manage an ecosystem for its own sake, they risk engaging in a problematic deep ecology that engages the notion of people as actors to be restricted from the environment (Robbins 2004) through deploying a romantic imaginary of the degradation of a pristine ‘nature’ (Morton 2007; Cronon 1995). Both of these forms of engagement have contingent histories, and whether explicitly stated or not, contribute to the ways that scientists engage in the politics of nature without actually acknowledging their commitments.

In general, during the course of my interviews many of the policy actors in the Bahamas appeared to be aware of many of the problems created by after-the-fact consultation as a result of this scientific assessment. One person at DMR described the process as a “mess.” Another person at BNT joked the marine reserves wouldn’t be established until there weren’t any fish left. Yet these MPAs were designed by three marine scientists without consultation, because of the habitual modes that scientists use to think about conservation, and their assumptions about role of the state in withdrawing territory as a tactic to effect conservation. However, within the archival interview data that I used for this study, drawn from the Bahamas Biocomplexity Project, there is at
least one prominent scientist involved in the proposal who has noted that mistakes were made in the past and he has treated the MPA creation process in the Bahamas as a learning process (Dahlgren 2001; see also Dahlgren 2004). Scientists such as these present an interesting dilemma, precisely because while they are frequently part of policy discussions, as noted above they would not necessarily accept the mantle of policy actor. Yet as the following examples show, they do act in ways that suggest that this is an appropriate label.

For example, when discussing the advisory panel’s research methods prior to drafting the recommendations for marine reserve siting, Craig Dahlgren notes that their metric for determining a fishing community was flawed. As he described it, many communities were only flown over, and if there were no large fishing vessels observable at the dock, the community was determined to be minimally impacted by a potential MPA because they did not engage in commercial fishing. Yet within three years after his contributions to the proposal, Dr. Dahlgren spoke of the need to consider the role of subsistence fishing when making such a determination in order to successfully create an MPA (Dahlgren 2001). Further, Dahlgren (2004) notes, “The mixed reaction to marine reserves in the Bahamas suggests that acceptance of marine reserves requires consultation with local communities during planning stage of the designation process and ensuring that access remains to at least some traditional fishing grounds. Similarly, public support also depends on ensuring that certain user groups (e.g., foreign scientists and island owners) are not perceived as receiving preferential treatment. Thus all resource users must be treated openly and fairly in the designation process.” While this recognition of
the need for prior consultation is admirable, in some ways this is perhaps too little too late.

![Image of a Bahamian Fish Trap](image)

Figure 7: A Bahamian Fish Trap

During the field season of 2002, I observed a number of interns who were working at the CMRC holding a bonfire on the beach. As part of their fuel, they were using woven fish traps (Figure 7) that they had pulled out of the water near their research sites, in effect enforcing an MPA that had yet to be designated. The interns told me that
they were under the impression that this was part of their job, although it is unclear whether this was a result of overzealousness on their part, or a directive from their research supervisors. Regardless of why the interns were engaging in this behavior, they were effectively creating a territory for scientists by attempting to remove the human predators of their aquatic research subjects. This, among other factors, is why local people in the Exumas are wary at the mention of Dr. Dahlgren, and they say he is perceived to be a competitor for local resources, rather than an impartial scientist. A number of fishers in the Exumas claimed that the research tanks at the CMRC were filled with lobsters that they should have been allowed to catch, questioning the intent of scientists as competitors for ocean resources.

Dahlgren is widely known for his scientific publications, based on observation and testing (e.g. Dahlgren and Eggleston 2000, 2001; Mumby et al. 2006). Yet, as an individual he is passionate about the need for conservation policy. While his passion is derived from the trends he observe in his research, his advocacy for MPAs has transformed him into a political actor speaking on behalf of the environment, and the people who depend on it, appearing in local television specials about the Bahamian environment that air regularly on the ZNS network. Within these activities, because of the nature of his work, he also advocates for certain spaces to be set aside for science only, in order to get a better understanding of ecosystem function. The perceived need to have a space devoid of human activity works to transform these areas into a wild nature, to become the exclusive territory of scientists. While I doubt that Dahlgren would see it as such, his advocacy for MPAs as research sites has led to a territorialization that
excludes everyone except for Western scientists seeking to study a nature without people (Chapter 4). Yet this territorialization overlooks the interactions and roles that people have had in shaping the ecosystem, and the possible negative effects of disrupting predator-prey relations in a cultural ecology.

The boundary policing that differentiates scientists from activists becomes blurred, especially when talking to scientists whose work is immersed in the context of creating MPAs. Because of the status afforded to them as experts that inform policy, their work can hardly be called neutral, and the rule of experts prevails (Mitchell 2002a). While Dahlgren is exemplary of scientists who accept that local social and economic conditions need to be considered when engaging in work that will result in policy, other scientists present views that can be called paternalistic or colonial in their logic. One scientist complained over dinner at the CMRC in 2002 that his research was moving further afield from the research center because he was looking for areas with no fishing activity to study ecosystem function. He considered all fishing activity to be destructive, and argued for an ecosystem without people as necessary to manage the resources of the ocean. Another scientist that was interviewed several times in the past decade took a dim view of the Bahamian people, suggesting that they would only respond to strong disciplining from above because they were “retards,” who knew nothing about the local environment.

Statements such as this indicate that practitioners of ‘objective’ science are also bound up in perceptions of the right to make claims to the ocean, for specific purposes that serve the needs of scientists. These two scientists argued that their expertise, and
desire to build that expertise in spaces without humans, should be the voices heard most strongly in marine policy specifically to create zones that exclude other people. This is not a neutral standpoint, but one that advocates scientific knowledge as privileged over other knowledge systems, with claims to the environment influenced by their own social history of views about nature (Adams 2003; Neumann 1998; Haraway 1991). Not only does the rule of experts prevail, but the scientists position themselves as people who speak for “nature” in ways that are permeated with the politics of the environmental movement, without acknowledging their own political commitments (Latour 2004). This blind spot allows them to advocate for the exclusion of people from the environment, with a specific politics that seeks to use territorialized exclusions to protect natural resources.

Conservation and the Consideration of Territorialization

Since at least the beginning of the 20th century, conservation efforts have been tied to the notion of withdrawal of areas by the state, regardless of historical patterns of use and occupation. While much work has gone into addressing the ways in which this approach has failed in terrestrial environments to consider other territorial claims or management regimes that result in counter-territorializations and resistance (Robbins 2004; Brockington, Duffy, and Igoe 2008; Neumann 1998; Ogden 2011), in contrast the oceans have long been assumed to be devoid of such claims. In the case of the proposed MPAs in the Bahamas, one factor that cannot be underestimated in the formation of marine conservation policy in the role that expert advisors and lobbyists influence policy
decisions, and also the ways their habits are built upon their notions of the role of the state. These habits are important precisely because they influence the views of nature, society, and state power that are deployed in seeking a conservation strategy. MPAs are constructed by both scientific experts and environmentalists as conservation objects within a certain view of the world, and therefore are deployed in ways that reinforce that view. Within the MPA designation process, we can begin to see the habits of conservation come through, based on the ways that conservation spaces were imagined in the proposal to set aside large tracts of ocean in the Bahamas.

On the national scale of the Bahamas, a number of issues factor into the drive to create conservation spaces, not the least of which are the ways that different conceptions of territorialization and territoriality come into play. While the economic goals of resource management and tourist promotion are both used as the justification for pursuing conservation areas, little has been said about why conservation areas are the solution that is pursued to the exclusion of all other strategies. The national territory of the Bahamas is deployed as the site of the conservation discourses for MPAs, perhaps because of the inability to work on the ecosystem scale of the wider Caribbean, but it fails to consider the possibility of scaling down even further. However, the addition of The Nature Conservancy to the discussion of the future of conservation policy has changed the tenor of the conversation. Because TNC works globally in a variety of social contexts, the individuals in the Bahamian office are aware that different tactics work in different contexts. During interviews, these individuals expressed that they are interested in whether community-based management might be a reasonable approach in the Exumas,
and they claim that no conservation policy will work without extensive community buy-in. However, as one prominent scientist claimed in response to this idea, “The government is unable to grasp the idea of public-private partnerships.” The higher ranking officials in the DMR seems to be fixated on the idea that conservation can only occur through creating a uniform territory of exclusion that reaffirms the power of the nation-state in its territorial waters, even while lower level DMR Fisheries Officers affirmed the concept of “Generation Sea.”

The MPAs that have been proposed in the Bahamas are all located within the 12-mile territorial limit, with the hope that abundance will be increased within the wider exclusive economic zone due to spillover effects. Presently, the EEZ of the Bahamas is in flux due to changes mandated by UNCLOS that require negotiation of linear boundaries, rather than the older method of calculating 200 miles from the variable shoreline. Because the Caribbean has many nations close together, there is a need for negotiation of EEZs that are workable for all parties. While EEZ is not territorial waters in the full legal sense, these boundaries will have de jure force regarding the right to extract. However, once these boundaries are agreed on by the respective nations, there will also be a need for strong enforcement that deals with the inability to fence the ocean. The DMR officers acknowledged that there is widespread encroachment into Bahamian waters by fishers from other nations who are seeking to extract the dwindling fishery resources of the wider Caribbean. Therefore they state that any conservation plans will need to intentionally overshoot to compensate for non-Bahamian extraction in the wider fishery. While these catches are restricted by law as a territory of exclusion, they cannot be fully
factored into any management plan, although recently a plan was announced to expand the efforts to capture poachers (Miller 2011b), even while seeking to help economic recovery by eliminating tariffs on fishing gear leading to an expansion of the fishing industry in the Bahamas (Todd 2011).

This presents the DMR with a dilemma as to how to manage the fishery resources of the nation that is further constrained by two factors: budgets and jurisdiction. Because the mission of the DMR is the management of the fishery, it has historically had a budget constructed around managing fishers, rather than fish. When talking about their day-to-day work, they describe it as recording fish landings of marketable fish, issuing permits, and maintaining a staff of fishery officers to inspect landings. In seeking to conserve resources, the DMR cannot presently expand its operations to monitor the ecosystems, or to police fishing activities on the water, because that is not how it has historically been budgeted. Marine reserves are an appealing option precisely because rather than increasing manpower to actively police fishers, a reserve is intended to allow ecosystem recovery by removing a space from harvesting efforts, which then may accrue nursery and spillover effects. Using a spatial exclusion strategy that bars all entry by fishing vessels (BEST 2002) would mean there would be no need to police the activities of each fishing vessel and directly manage fishers, by governing a space instead. This gives an economy of scale that allows scarce capital to be deployed over a smaller territorialized zone, rather than the whole of the fishery. It is also dependent on the governmentality of the citizens of the nation-state, hinging on respect for the rule of law and governmentality. Rather than policing the people, marine reserves will be deployed with
the expectation that people will police themselves, for fear of being found in violation of the law.

Jurisdictionally, using the approach of regulating an exclusionary space within territorial waters further solves the problem of where the DMR has police powers. The DMR cannot legally enforce regulations in the whole of the EEZ, as its powers are constitutionally limited to the territorial waters of the Bahamas. Because the DMR cannot police foreign fishers, or act as police of Bahamian fishers until they are in the territorial waters, deploying MPAs creates an area of effective policing. A blanket policy of exclusion within the waters of the MPA means that any vessel may be sanctioned for entry, and the problem of policing becomes one of zero-tolerance with a clear jurisdiction, because the marine reserves will be a space fully controlled by the DMR. This tactic is within the purview of the recognized right of a state to control its territory, and legislate the way in which citizens may use the territory. However, people who work for the DMR note that while they have approval to create and gazette these areas, there is also no planned expansion of fisheries officers. Instead, the plan is to create an area where no entry is allowed, and then rely on reporting of entry and enforcement by either the Bahamanian police and defense forces as appropriate. These are then “paper parks” which seeks to uniformly exclude all people and create an area that may not be used for any purpose, using withdrawal of territory as a tactic of power deployed for the good of the nation-state.

While the rules governing national parks are established in a different fashion, being governed by a private entity, these too become territories of exclusion. When a
park is gazetted by Parliament, permission is granted to acquire landholdings and convert them into parks, as well as transferring control of Crown Land to the BNT. Further, because these parks are often a mixture of land and sea, Parliament grants to BNT the right to establish rules for the surrounding ocean, and hire wardens to enforce these rules. While it is not fully correct to say that the BNT acquires a property right to the ocean, rights are granted that give the trust de facto control over its waters as if it were property. This allows them to create parastatal rules that can then be enforced by a private staff of wardens within park boundaries, with full force of law and the power to turn violators over to the police or the defense force. While the ECLSP has a well-known boundary and system of rules, newer parks are not as well known. As referred to above, the BNT established the Moriah Harbour Cay National Park in 2002. Yet, this park has rules that prohibit fishing and anchoring, but no enforcement mechanism and little publicity of the rules. So while the park is officially a territorial exclusion (having been created by Parliament) its existence is also on paper only.

According to people working at the BNT, this puts their agency into an awkward position, because they have rules that are not being enforced. While interviewing fishers in the Exumas in 2010 about the existence of the park, several of these fishers noted that their main fishing grounds were within the park boundaries, and claimed they were unaware that such activities were now illegal. When I interviewed two of the activists who lobbied for the creation of the park, they stated that while they knew of the rules that had been gazetted, they had never been in favor of a complete ban on fishing activity, as they felt the community would reject such a policy. Further, talking to people who work
for BNT led to the discovery that rather than drafting rules for each park as they were gazetted, an internal decision had been made to simply use the existing rules for the ECLSP for all new parks as a template on which later rule making could be based. Current regulations state, “Spearing or taking marine animals by any means is prohibited within national sea parks.” I was informed that while the park had been in place around Moriah Harbour Cay since 2002, because of a lack of funds to hire a warden, the park was deliberately little publicized within the Bahamas. When I asked a BNT representative about the conflict between a complete ban on fishing in the area and regular use by the residents, I was informed that the plan as of 2010 was to gradually enforce the rules, so that people could get used to the idea that they cannot fish there anymore, rather than allow fishing to continue.

This leaves us sitting with the basic problem of using a territory of exclusion as conservation practice in the Bahamas. Without additional financial resources, the respective branches of government (DMR, BNT) cannot manage either parks or MPAs. Without the financial support from Parliament, the government agencies charged with protecting resources are ineffective, yet adamant as to the rules of their respective enclosures. If MPAs are created with no money for enforcement, the question remains how regulations can be enforced nonetheless. While a large NGO like The Nature Conservancy can tap into transnational sources of capital for awareness and promotion campaigns, these efforts can do little about the fact that these areas are used by large numbers of people in a variety of ways (see Chapter 6), and therefore likely subject to counter-territorializations as a form of resistance.
People I interviewed in both the BNT and DMR offices have identified a need for more interagency cooperation and coordination within the Bahamian state, hoping that the police and defense forces can be persuaded to engage in enforcement of fishing bans. However, both forces have limited capacity to devote to policing the fishery, and members of both the Royal Bahamian Defense Force and the Exuma Police Force have told me that enforcement is up to the DMR officers. If there is not the institutional capacity to enforce regulations in parks and reserves, the question remains of why the DMR and the BNT are still actively pursuing territorial exclusion as their dominant conservation tactic. I am arguing that it is tied to the habits of conservation and the notion of state territory, and the idea that states have the right to withdraw resources for the well being of the nation. This then precludes considering other ways that territorialization are taking place, whether the territorialization desired by the scientific community, by conservation NGOs, or the counter-territorializations of fishers that in themselves may be more productive in the long run. It is to those fishers that I now turn.
Chapter 6: Fishers and Their Responses to Conservation Policy

My very first interview in the Exumas, Bahamas in 2001 began with a question not from me, but from the fisherman I was interviewing. He asked, “Why do you want to come here and take our fish? Go home and worry about your own fish.” Aside from his misunderstanding about my research interests, his question eventually led me to consider something that was not originally in the study design I was working under, namely the ways that territorialization of the non-human world becomes part of the discourse of conservation issues. While this example posits an organism as property, it was embedded in the wider frame of discussing Marine Protected Areas (MPAs) that had been proposed in the Exumas by a team of marine biologists in order to offset fishing pressures in the wider Caribbean (Stoner, Hixon, and Dahlgren 1999). As noted before, MPAs are a form of ‘fencing the sea’ to create a territorialized exclusion to enhance both biodiversity, but through their enclosure produce territories that often contested (National Research Council 2001).

As such, the question that was asked of me was directed to why I was engaged in the discourse of territorial conservation strategies that seek to exclude resource users for multiple purposes, including ensuring the continued livelihood of fishers, within a contradictory framework. If the goals of an MPA include enhancing the fishery, why then
does the fisherman reject them? Further, because MPAs use the territorial strategy of withdrawal by the state, what does the term ‘our fish’ refer to? My research during my two most recent field seasons (2009 and 2010) in the Bahamas was directed towards discovering the dimensions of territoriality that might be at play in the Exumas and how this might affect people’s attitudes about conservation policies, especially Marine Reserves and Parks.

While the initial study design focused on the sibling concepts of territoriality and territory as objects my analysis, my findings suggest the answer to the question of what is at play should instead be directed conceptually towards the ways in which territorialization, in the active form, should be the true focus. This territorialization is manifested in a number of ways, notably through what I have termed spatial conflict claims, identity claims, and management claims. While I close this chapter with a discussion of these claims, they surface throughout the following pages. People in the Exumas make claims to both portions of the local sea, and have ideas about how marine resources should be managed and by whom. Within these claims and ideas, they also territorialize the entire Bahamian waters, not only the local sea. These territorial claims do not necessarily preexist as a firmly held notion of the right to control a portion of the sea, but instead arise as responses to a variety of threats.

While there are some pre-existing territorial claims made by fishers in the study area, there are also territorial claims that seem to only come into existence once conservation is proposed that will remove the areas in question from local use, suggesting new ways of looking at the spatial configuration of marine reserves as evocative of
territorialization. There is a contradiction that revolves around how competing claims to both the resources and their habitats, made by both the state and stakeholders, come into play when the ocean is transformed into a space of the state, rather than an open access regime. By withdrawing a portion of the ocean, the state limits the ability of citizens of the nation-state to engage in livelihood strategies that include continued access to the resources that an MPA contains; as such this creates new social relations that deploy counter-claims against the notion that the resources belong to the state (See Figure 6 above). What I will address below attends to the ways in which MPAs, as an assertion of territorial control made by the state, draw forth multiple re-territorializations through material and semiotic practices that can be read as both resistance to the state, as well as a productive form of politics that perhaps can be deployed as a different tactic in the search for a sustainable fishery.

This chapter is designed to summarize and analyze the results of my fieldwork with fishers in the Exuma Islands over the last decade. While the primary focus is the research conducted during fieldwork in 2009 and 2010, my field notes from prior research with different objectives also inform this chapter. In seeking to answer my research questions (Chapter 2) about territoriality in the ocean, I used multiple methods, including private semi-structured interviews, participant observation, and participatory action research activities. What follows is a summary of the ways in which territorialization, as a process rather than an objective territory, informs the ways in which fishers are thinking about conservation and MPAs. While my research activities included both fishers and people involved in making Bahamian fishing policy, the focus
of this chapter is the fishers of the Exumas. The findings related to policy actors have been included in Chapter 5.

Figure 8: Inter-Species Ecology in Action in the Exumas

The quote with which I began this chapter also reminds me to be acutely aware of the politics of representation. While I can neither speak for the people of the Bahamas nor the government of the Bahamas, I am basing my arguments below on the long relationships I have had with the people of the Exumas. Due to concerns that people have over specific statements being traced to them, quotes are not directly attributed. In
addition, where there is a wide-ranging consensus I have summarized and paraphrased, while also attending to dissenting voices. However, my own complicity in my analysis as an “expert” leads me to assert that my findings should not be ignored, despite my misgivings about speaking for a marginalized other. I cannot speak for the Bahamian people, but I have done my best to synthesize below the results of 10 years of research. An earlier version of these findings was presented to people in the Exumas in 2010 (Appendix C), and to the best of my ability I included the responses of the people to this analysis. This was used as a method of validating my early findings, as well as the basis for a new round of conversations with the fishers of the Exumas. By presenting what I thought I had learned, conversations were then held in groups and with individuals that both affirmed and corrected my initial conclusions. While the text of that report forms the preliminary basis for this chapter, the analysis here is much richer due to this iterative process.

Spatial Conflict Over Bonefish Habitat as a Force in Play

Spatial conflicts are an established part of the MPA literature (National Research Council 2001), and indeed all conservation literature as NIMBYism. However, my interests here are in the ways in which a use conflict becomes reasserted as territoriality. While the notion of Not In My Back Yard expresses a desire to locate a conservation project elsewhere derived from a sense of entitlement, territoriality comes into play when an assertion is made either for possession of the space in question, or through the assertion that traditional use patterns will continue on the basis of a sense of right. While
these conflicts are marked by similar use claims, they are often marked by discursive
turns that claim the space for somebody; or else claims assert that the area will continue
to be used by specific groups of people. These claims cite understandings of the world
that transform a conservation area from a state territory, into a taking of local rights. In
some cases, this territoriality may have its origins in pre-existing informal territorial
arrangements.

A notable case of pre-existing territory would be the bonefishermen of Great
Exuma. In interviews with three different bonefish guides (of the twelve reported to be
active on Great Exuma), I was told that they have specific exclusive areas in which they
guide tourists, and for the most part respect each other’s boundary claims. Bonefish
(Albula vulpes) are a sportfish that contribute to the tourist economy, specifically through
rental properties, and the hiring of professional guides to fishing spots by wealthy fly
fishermen. Bonefish are predominantly found in sandy flats, accessed either by walking,
or via a boat in order to avoid travelling through mangroves. Bonefish guides report that
they can earn several hundred dollars a day, and in the Exumas there are both
independent guides, and guides who work for a hunting lodge owned by the Peace and
Plenty Hotel. Each bonefish guide I interviewed reported that he has his own preferred
spots, and all three claimed that they defend these spots from other guides. This defense
includes tactics that range from yelling until the interloper leaves, up to physical violence
(a “public beat-down”). According to one of the bonefish guides, the managers of the
local bonefish lodge define some of these territories, as they partition work spaces for
their contracted employees. In contrast, an independent guide reported to me that he
simply chases others off the sandy flats that he has claimed, and that people know to stay away from him. This was confirmed by another guide, who also referred to the independent guide as a troublemaker due to his status and claims outside of the assigned fishing territories.

Figure 9: Proposed Mosstown MPA (Stoner, Hixon, and Dahlgren 1999) The solid curved line represents the proposed enclosure as a no-take marine reserve. The dashed line that runs through the MPA is the navigation route for Green Turtle Cut. The sandy flats used by the bonefish guides are on the south side of the cays that trend northwest from Great Exuma. The north side of these cays has a number of small shoals that are actively fished, as is Green Turtle Cut. The Mosstown dock is just north of the proposed northern boundary, on the west side of Great Exuma.
One issue that came up repeatedly when talking to the guides and the management of the Peace and Plenty Bonefish Lodge, was the introduction of foreign owned housing built adjacent to many of the bonefish flats on the south side of the Great Exuma mainland. All three local bonefish guides I interviewed claim this has led to tourists fishing without guides, and habitat degradation as tourists fail to abide by responsible fishing practices. As a result, they state that the local bonefish guide industry has needed to move into areas that are proposed to be included in the MPA proposed near Mosstown (Figure 9). The bonefish guides all claim that they are supportive of conservation efforts due to the fact that their industry is dependent on the environment continuing to be healthy. However, one of these fishermen voiced opposition to a ban on all activities within the proposed MPA, while the two others argued that bonefishing would always be a permissible activity because it is a “non-extractive” activity, and therefore not subject to regulation.

Yet, the initial proposal for the MPA on the south side of Great Exuma noted that there would be little loss to the economic well being of the local communities, because the only activities that would be excluded appeared to be bonefishing (Stoner, Hixon, and Dahlgren 1999). It is curious that the proposal considered the loss of an activity that pays several hundred dollars a day not to be a significant economic loss. While the guides claim their activities would not be excluded, the proposal states that these reserves are to be no-take, including sport fishing. A later document affirms this, as it notes that no one will be allowed to catch any fish within a reserve, or even enter the reserve with fish caught elsewhere (BEST 2002). This then leaves the bonefish guiding industry to deal
with a space that has been territorialized by the state for conservation purposes, overwriting their informal fishing territories.

Because of their commitment to the idea of sustainable recreational use of the local environment, many of the members of the bonefish guide community would seem to be valuable allies in the move to go forward with a marine reserve on the southern side. However, the original plan for the MPA in Mosstown calls for restriction of all activities, something that these guides oppose. Their territorial claims to specific bonefishing areas are an obstacle to successful implementation of MPAs because some bonefishers have expressed that they feel that the government is taking away a space they use for their exclusive livelihood activities. I would suggest that this is a case of actually existing de facto territory that is being overwritten, leading to one source of resistance to the implementation of MPAs in Exuma.

While the informal nature of the arrangements and defense of their specific areas would not fit into a definition of territory that is derived from the state, or a cohesive social group, it is in fact a localized network of territoriality (using Sack’s (1986) definition) that has resulted in a series of spatial arrangements that are defended against encroachment by the claimants to the spaces in question. While not common, fishing territories such as these have been identified elsewhere, the most prominent example being the lobster fishery in Maine (McCay and Acheson 1987; Acheson 1988). Bonefish guides describe their workspaces as territory, and expect others to respect their claims, as they respect the boundaries of other guide’s claims. The guides know each other, and part of their livelihood strategy has incorporated territorializing the space in ways that ensure
their individual economic opportunities, while also giving them alliances that will fight off encroachment on their respective fishing territories. In following up on how physical violence is used to enforce territory, guides told me that they will publicly ally themselves with a guide whose territory has been encroached, resulting in the social ostracization of violators of the arrangements, even to the point of physical violence.

Claims to the Sea through Spatial Practice

While bonefish guides present an interesting case of informal territory within the fishery of Exuma, most fishing activity takes place off the sandy flats, targeting fish for household consumption and sale. This fishing takes place in mangroves, docks, rocky outcrops, and boats. Because of the diversity of approaches to extraction, there is in general, a sense that the sea is open to all, which will usually be stated when you ask if local people have fishing territories. Yet the proposal to withdraw part of the sea for the creation of MPAs gives rise to several distinct forms of spatial conflict, which can then lead to territorializing claims. For instance, the proposed MPA extending from Mosstown to Jewfish Cay has at least four forms of conflict contributing to people’s objections to the loss of “their” sea. While these may be seen as variations on the theme of overall spatial conflict, I have broken them out in this way to illustrate that there are in fact distinct but overlapping claims to the sea that are being affected by the proposed MPAs in Exuma, each of which suggests a different way to examine the role that conflict over control of the ocean plays out. All of these examples are related to just a single proposed
MPA, located near Mosstown (Figure 9), because this particular MPA territorializes the ocean in ways that provoke specific conflicts and counter-territorializations.

**Reef Fishery Conflict**- The first conflict results from a number of near-shore shoals that are fished by local people on their way to and from fishing sites that are further away. The use of these shoals was documented through participant observation on a fishing run, and confirmed with follow-up interviews. The south side of the Exumas is also reported by many fishers to be a foul-weather fishery, and fishers say that it is exploited more heavily if there are high winds because it is the leeward side of the island. Some fishers objected to the proposed MPA (Figure 9) on the grounds that without the ability to exploit these more proximate resources, they may not be able to sustain the same level of income as their extraction effort is driven further away, and also pushing the impacts of their fishing activity elsewhere. The fishers who use the resources that would be enclosed by the Mosstown MPA tend to have smaller boats that limit the amount they can take (Figure 10), which in turn limits their ability to transform fish into cash that can buy fuel for their boats. A great number if these smaller scale fishers in Mosstown (as well as some individuals with larger boats northwest of Mosstown) claimed they would not be willing to give up these near shore fisheries without strong enforcement, but also noted that over time people would adjust. As they described it one afternoon, while they would likely initially ignore any regulations, they would eventually have to adapt to avoid fines or incarceration. One fisher told me that as long as any person can get away with fishing in a protected area, he sees no need for any person to give up fishing, as the risk is minimal.
These statements that they would continue to fish until caught makes the idea of a “paper-park” unfeasible, because of both the economics of the fishery, and historical use patterns. Near-shore fisheries are known to have lower entry costs, and therefore are more widely used than fishing spots that are further away. Because fishers in the area harvest in multiple spots in part of a fishing run, the increased fuel costs of being forced away from the near shore fishery will force some owners of boats to either leave fishing, or else risk engaging in fishing in within the MPA boundaries at the places they were taught to fish, in the traditional fishing grounds of the Exuma settlements. While these traditional fishing grounds cannot properly be called a territory, the statements that they intend to continue using the area until there is strong enforcement suggest that this is a re-territorialization in response to MPAs, through outlaw practices (Ogden 2011).

Figure 10: A Typical Fishing Boat in the Exumas
**Bonefish Promotion**- The second form of conflict derives from the bonefishing activity mentioned above. Yet while this conflict has local effects, it also appears to be in part derived from a lack of coordination between government agencies at the national level. In 2010, I visited the Exuma offices of the Bahamian Ministry of Tourism. At first the women in the office assumed I was a tourist, and in fact inquired if I intended to go bonefishing. After I explained the purpose of my time in Exuma, they asked me where the proposed MPAs were located, as they were unaware of the proposal. I showed them the initial proposal and the maps that it contained, including the sandy flats near Mosstown. I was told that the Ministry of Tourism has been active in promoting the bonefish industry in the Exumas, and they expressed dismay that it appeared the Department of Marine Resources was attempting to close the main area that bonefishing presently occurs. In talking with the staff of the Ministry of Tourism about how this situation came to be, it appears to be a case of local fishers lobbying for and receiving more support from one government agency (Ministry of Tourism), while the Department of Marine Resources is trying to secure a conservation area that hypothetically benefits the people of the Exumas in another way, although their discourses frame the benefit as accruing to the entire nation-state.

This is a spatial conflict located within a government that has conflicting designs the same space, one of which calls for a territorialized exclusion, the other of which calls for continued open access for a certain subsection of the local population in order to bring tourists to the island, and benefit the nation-state through the spending of money. In this case, it appears to me that the conflict is partially derived from a lack of coordination
between seemingly unrelated government ministries, one of which is seeking to withdraw a portion of the territorial waters in order to promote the health of one economic sector at the expense of another. While the proposed MPA territorializes the ocean in the interests of one branch of the state, it also conflicts with the plans of another branch of the state. While this would seem to be an internal problem for the two agencies to resolve, it further appears to me that some of the conflict is also derived from the way that local people interact with their government. One of the bonefish guides I had spoken with in 2009 told me in 2010 that he had talked with someone in the Ministry of Tourism office about whether MPAs would eliminate bonefishing. He did this assuming that contacting any government official would result in his concerns being heard, and claimed he had been reassured that bonefishing would continue, as it was a tourist activity. He also confirmed that he had not talked with the local fisheries officer about whether his activities would be allowed in the proposed MPA, citing a dislike of him. So while at least one bonefish guide states that he has been vocal in his interactions with the Ministry of Tourism, he also seems to expect tourism officials to communicate with the Department of Marine Resources, rather than bring his concerns to both of these disconnected agencies.

**Navigation** - A third source of spatial conflict relates to navigation right of way. Within the MPA boundaries shown in Figure 9, there is a dashed line that runs north to south, running between the mainland of Great Exuma and a number of Cays to the west. This line represents a sailing route known as Green Turtle Cut. As you can see, the series of cays between the Exuma mainland and Jewfish Cay have a number of cuts between
cays that can also be seen when observed via satellite imagery (Figure 2). These cuts are places where the water moves between cays as the tidal currents change, ranging in depth from a few inches to tens of feet. However, the people who regularly travel by boat in the area report that only Green Turtle Cut (see Figure 9) is navigable at all times and tidal cycles. It is therefore heavily trafficked by people travelling in both directions on the leeward side of the mainland.

If this cut were to become part of the proposed no-take MPA that prohibits possession of fish within its borders, people who live outside of the protected area could no longer access fishing areas beyond these cays without significant fuel costs to go around the MPA, a distance of approximately 20 miles if you follow the approximate boundary line. Further, the dock for the settlement of Mosstown is located in such a way that leaving Mosstown in a boat is only possible by entering the boundaries of the proposed MPA, effectively creating a ban on all fishing activities for the people of Mosstown and the nearby settlement of The Hermitage, unless they portage their vessel to another dock. The vast majority of fishers in all parts of the Exuma Cays from Barratarre in the northwest to Williamstown in the southeast who were interviewed about this potential MPA, insisted that they would continue to use the Green Turtle Cut. The predominant reason given by the fishers I spoke with for needing to use Green Turtle Cut, is that they cannot afford extra fuel. In addition, I talked with more than ten fishers in one afternoon in Mosstown who argued that the sea cannot be closed to passage if they aren’t actually fishing in the area, perhaps referencing the doctrine of ‘innocent passage.’ However, in terms of enforcement, there would be no way for fishers to prove that they
are using the cut for innocent passage, and possession of any fish would be deemed a crime within the MPA, as it would not be possible to prove they were caught outside of reserve boundaries (BEST 2002). This would result in a loss of sea that the fishers are expressing a continuing right to use, and they are arguing that they would not respect the rules of the MPA. These statements reflect an act of re-territorializing the MPA by continuing with historical practices in contravention to the rules that would exclude their entry.

**Relish**- The final spatial conflict I want to discuss derives from what is best described as a subsistence fishery, the main source of protein for many people in the Exumas (called ‘relish’ in the local dialect). There are many people in Mosstown and the nearby settlements who have told me over the years that they are dependent on Green Turtle Cut for a significant amount of their diet. Because it is a deeper cut with a relatively sheltered environment, people can access this area when inclement weather arises, and a number of residents of Mosstown stated that it provides a year round source of food. Many people in Mosstown who do not have powerboats told me they still row out to the cut from the local dock, in order to drop a line and catch a few fish. A number of these people are more advanced in age, or single mothers. When faced with the potential enclosure of an MPA, they protested that a loss of access to the marine resources of Green Turtle Cut would result in either a reduction of their diet, or the criminalization of their efforts to feed themselves and their families. This subsistence fishery differs from the reef fishery, because many of the people who fish within the bounds of the proposed MPA in Green Turtle Cut aren’t engaging in long trips for the
purpose of trading fish, and while some may venture further out to frequent the same reefs, they don’t necessarily consider themselves “fishermen.” While it is their livelihood, it is not their occupation. Viewed another way, this conflict over a subsistence fishery causes a new territorialization to come into being, as a closure of a part of the sea where people provision their households is seen as a taking of “our/my” fish.

Adding further complexity to the loss of resources and spatial conflicts was the creation of the new Moriah Harbour Cay National Park located around Stocking Island. While this park was not in my original study design, it was often talked about in the same context as the MPAs proposed by the DMR. Because the island of Great Exuma has one main road that is only about 40 miles from end to end, people often socialize and provision themselves from Georgetown, which is also the seat of government. While the established restaurants in Georgetown acquire much of their fish from fishers who have larger boats, the Fish Fry in just outside of Georgetown offers another problem. I observed in 2009 and 2010 a number of fishing boats that would pull up to the fish fry, so the fishers could sell fish to the establishments there.

While one fishing crew reported that their catch was line-caught out near the Tongue of the Ocean,24 two other boats of fishers reported when asked that they worked in the area between Stocking Island and Georgetown. When discussing their fishing activities, they stated they were unaware of any Marine Park in the Exumas beyond the Exuma Land and Sea Park, further up the Cays. In one interview, I asked a fisher who

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24 This boat was specifically targeting Black Grouper (*Mycteroperca bonaci*) and Red Grouper (*Epinephelus morio*), both of which are reported to be found in reef communities near the drop-off at the Tongue of the Ocean (also called the edge of the ocean by some local people), on the windward side of the Exumas.
supplied fish both to his own establishment and a few others in the Fish Fry to show me on nautical charts where he had his fish pots as a participatory mapping exercise. He and his son proceeded to trace out their fishing route, identifying specific fishing drops and the species targeted there. Every single one of their fish trap drops was within the boundary of the Moriah Harbour Cay National Park. His response when shown the boundary line was to say, “They are killing us. There is nowhere left to fish. I can’t go further because I can barely afford fuel now. Where am I supposed to fish?” In later interviews this gentleman expressed multiple times that the government had no right to take the sea away from the people of Exuma, as it was their sea, and that it was like generation land and nobody can take that.

Another fisher told me that he had built a number of crawfish condos25 within the boundaries of the park. One evening, he accused me of going out in a boat and dismantling his condos in an effort to save lobsters for the tourists who anchor there during yachting season. While his view of my activities was a minority in the overall interviews, he wanted it made known that he perceives marine conservation as a plot by “rich white people” to destroy the economy of small-scale fishermen, who are just trying to eat and make a little cash. In his berating of me, he accused myself and any other person interested in conservation to be restoring the colonial relationships of the past.

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25 A crawfish condo is a temporary structure built with cinderblocks and sheet metal on the sea bed that acts as an artificial reef to attract the Caribbean Spiny Lobster (*Panulius argus*). Because these structures are not mortared, they are technically not a permanent structure, and do not fall under the legislation against banning the creation of artificial reefs.
Regardless of whether these policies are a result of action by Parliament, he correctly diagnosed them as having a foreign influence.

A Failed MPA

These spatial conflicts are even more complex when there is the potential of a complete enclosure. Within the original marine reserve proposal (Stoner, Hixon, and Dahlgren 1999), there was an MPA proposed that was deemed to have high scientific utility that pre-empted all other social variables, as it would have served the Caribbean Marine Research Center (CMRC) on Lee Stocking Island (Figure 11). This particular MPA would have enclosed part of Steventon, and the entire settlement of Barratarre. This would have eliminated all fishing activity in Barratarre, as well as cutting off the docks used by fishers in Steventon, requiring a portage to fish at all. In this case, resistance was so strong from the community that the proposed MPA no longer appears to be on the table. Scientists at the CMRC reported to me that guns were brought to public meetings, and I myself have had threats made against me by individuals in Barratarre because of my involvement in researching the effects of this MPA.

The strong defensive actions against this particular MPA call to mind Sack’s (1986) statements about human territoriality. Yet, when I interviewed fishers who would have been enclosed by the MPA, there is no territory in particular that they claim. Instead, they organized resistance in defense against a state territorialization that would have reconfigured their spatial practices and livelihoods. In addition to their threats against the marine scientists at the CMRC, they also made claim to an area as “our sea,”
which they also contradictorily maintain is an open-access portion of the sea. Rather than defending their pre-existing territory, their territory instead came into being with the threat of withdrawal, and it appears that their resistance and re-territorialization has been successful in warding of the intentions of both scientists and the state.

Figure 11: Lee Stocking Island MPA (Stoner, Hixon, and Dahlgren 1999) This MPA is northwest of Great Exuma. While the proposed boundaries tend to use straight lines to form a rectangle, the curved area in the northeastern boundary encloses the docks in Steventon. The Cay and Settlement of Barratarre is just to the north of Steventon, and Lee Stocking Island, the home of the CMRC, is north of Barratarre.
None of the above conflicting claims to the use of the sea can be described as ‘pre-existing’ territorial claims. Yet, the ways several of these conflicts are playing out are through claims that re-territorialize the ocean in opposition to policy proposals. The fishers I interviewed are firm in their opposition to the MPAs as proposed. Further, when these fishers state that their traditional use will continue, in contravention to the state territorialization of the MPA, they are actively performing a re-territorialization by appropriating resources and areas that are being legally withdrawn. When I posed the question of who would police an MPA with no warden, fishers throughout the Exumas told me repeatedly that local people would not likely be reported, because they are neighbors and family. These same people however also noted that instead, they would report fishing vessels from other parts of the Bahamas because they would be taking ‘their’ fish. If the MPA remains a ‘paper park,’ a large number of fishers I interviewed implied that they would treat as a fishing area that only they could fish in, using the MPA boundaries to give them a territory. In a related fashion, a number of fishers in 2010 asked me if I thought they could be given the right to continue fishing in an MPA, in a way that also excluded the larger fishers from Nassau and Spanish Wells. This would essentially create an MPA territorialization for the people of Exuma, and not the nation-state, but this is a question that I could not answer, except to say that it had been tried with some success in other places.

Under any management regime, conflicts over the appropriate use of spaces will occur. In the case of the Exumas, MPAs are proposed for areas that have extensive use
value for local people. While the territorial state model of the law of the sea allows the state jurisdiction over its waters, the extent of this jurisdiction is also always limited by the willingness of citizens to follow the law. Because of historical and continued use of the areas slated for protection, the people of Exuma are resistant to a change in management. The concept of “not in my backyard” is well documented within conservation literature, and is anticipated with any change in management, as what could be called a weak form of territoriality. Yet, NIMBY is often used as a pejorative term that overlooks the social complexity and possibly sound reasons for local resistance to any planned project (Burningham, Barnett, and Thrush 2006). It assumes that a project must be located somewhere, and that it will be resisted, without considering alternative possibilities that might lead to a different sort of project. Within the Exuma Cays this resistance to conservation planning is compounded by a strong dependence on the environment for daily needs. The conflicts at play in the Exumas also extend to larger issues of disempowerment and livelihood, rather than an entitlement framework that simply wants conservation enacted elsewhere. Excluding people from the sea in order to create an MPA near Mosstown or Barratarre would affect the livelihoods of multiple stakeholder groups, from vulnerable subsistence fishers, to highly paid bonefish guides.

In the case of elderly fishers who live in the Mosstown area, part of the area proposed MPA enclosure is their provisioning ground, which provides much of the protein in their diet. Creation of an MPA would result in taking “their” fishing grounds. While they have the right of citizenship to fish in other areas, they lack the ability and the gear to simply relocate where they fish, which leads them to make a claim to the right to
fish in the areas they can access. In the case of younger fishers who dive the shoals and rocks within the proposed MPA, some do have the ability to move to other areas with larger boats. However, because it is an inclement weather fishing ground, and a key navigational area, removal of their activities will reduce the days they can actively work, and increase their economic burden through fuel costs. While these fishers are somewhat less resistant to the idea of an MPA, because they do have the ability to go elsewhere, they instead see setting aside this area as an economic hardship that will cut into their bottom line. While they make no prior claims to the ocean spaces in question as their territory, they instead make claims to continued use of the area as people who live in Exuma, and need the amenities that it offers.

Figure 12: The Caribbean Marine Research Center
In both of the above cases of Mosstown and Barratarre, there is no pre-existing *de facto* territorial claim. The fishers of those communities think of the sea as an open access regime, until a threat is made to restrict their access. Yet once an MPA is proposed that would severely infringe upon people’s ability to continue their livelihood strategies, they make a claim to the area as ‘their’ sea. This is territorialization in action, a push back against a perceived threat. Because people are enmeshed in social relations that are based on some form of territoriality, it makes sense that a spatial object such as a conservation area would call forth that territoriality, and a territorialization with no historical antecedent.

With the exception of the settlement of Barratarre, the bonefish guides who use the area near Mosstown are perhaps the most territorial when it comes to discussing the potential of an MPA to disrupt their livelihoods. As noted above, due to the loss of other bonefish flats caused by tourist encroachment, and the presence of a bonefish lodge that has long sought some form of organization among the guides, the sandy flats on the south side of Great Exuma have pre-existing *de facto* territories. Guides for the most part respect the territories of other guides, and seek to control access to these areas, sometimes resorting to violent means. When interviewing guides, they were insistent that they could not be displaced by an MPA, both because they consider their activities to be permissible, and because they would have nowhere else to go. The threat of an MPA is strengthening their territoriality, resulting in discussion in their social group of requesting the right to have their territories formally recognized. This is a form of territorialization in which seeking a protected status for an activity transforms an informal management system into
a legal system, resulting in a new management regime that gives stakeholders specific rights that they did not necessarily bear before.

This active territoriality only seems to come into existence with the presence of a threat to continued use of a resource that people are dependent on, and have long historical use patterns. Not all conflicts over the use of space can correctly be described as territoriality, as in the case of usufruct, when another’s territorial claim is acknowledged. In each case above, prior to the proposition of an MPA, the sea was held by the people of Exuma to be open access, for the use of all Bahamians in a usufruct scenario. When people were asked if they had areas that they considered reserved for the exclusive use of the local communities, the answer was always that “the sea is open to all Bahamians.” They will cite the Law of the Sea, and say that the fish are the property of whoever catches them first. However, once a proposal of conservation is put on the table in the form of MPAs or a Marine Park, a spatial conflict arises that starts a process of territorialization, in which counter claims are made for ownership, control, or at the very least, use rights for the spaces in question by local people. So while a pre-existing de facto, strongly defended territory cannot be said to exist, there is a territorialization at play here that can only appear once the right to use a space is diminished. Rather than defending a historical territory, local people shift the discourse towards areas that they should have a legal right to use exclusively, once they are threatened with a loss of access. In the discussion at the end of this chapter, I will explore this further, and examine the possible implications of this territorialization. However, first I want to examine a number of ways that these shifts in discursive and semiotic practices become
visible, and the ways that people in the Exumas move away from arguing for an open access regime to one of enclosure in a territorial fashion.

**Identity Issues**

While it is common to think of territory in a non-rigorous sense as something “out there” within a bounded space, current scholarship also suggests that how people in a place identify themselves and their belonging to that place is also a form of territorialization (Gupta and Ferguson 1997). In light of this, I wish to turn now to the ways that identity claims in the Bahamas are leading to a struggle over territorialization in the oceans. These distinctions illustrate more than conflicts over the partitioning of space in the ocean for its use value, and instead draw attention to the ways in which certain discourses about identity produce different claims to the right to use ocean resources and spaces. In particular, there is a distinction that must be recognized in how people in different parts of the Bahamas recognize the identity of “fisherman,” and this contributes to conflicts in claims to the resources in the Exumas.

In the Exumas, most people identify fishers as a person who has a small boat, who may or may not take a crew along, to go hunting for fish with a Hawaiian sling, line, or fish trap. In most cases men do this, but some women have also told me that they have also historically participated. These fishing methods are highly selective, allowing the people in question to take only what they think they need, either for their household, their community, their restaurant, or even for sale to Nassau. It is difficult work, and a person who is highly successful as a fisher is respected in the community. In contrast, there is
extensive line fishing in the Exumas, both hand and rod, practiced by people of both
genders and across age groups—but this is not “fishing”. To illustrate, when a group of
men were asked who among them were fishermen, one person responded that he was not.
However, when asked if he ever fished with a line off the dock, he responded,
“Everybody does that, but I’m not a fisherman like these guys.” This brief anecdote
illustrates that the identity of fisher in the Exumas has layers of complexity. People in the
Exumas specifically identify fishermen as people who work in boats, harvesting
quantities that allow them to trade some of their catch. However, nearly everybody I have
talked to in the Exumas catches fish, suggesting that the category of ‘fisherman’ is tied to
the purposes and methods of fishing.

When I talked to people in the Exumas about the additional effort they have to put
into making sure their extraction of fish meets their needs, one thing they consistently
bring up is other kinds of fishers as drivers of the problem of declining stocks of targeted
species. The introduction of lobstering techniques from the Dominican Republic is one
such method, and the large fishing vessels and nets used by fishers from the small
community of Spanish Wells north of the island of Eluthera is another method. In the
case of Dominican lobstering, this is a fishing method in which air compressors are used
to stay on the bottom for long periods of time. Spiny lobsters are hooked out from under a
shoal, and then the carapace is cut off, and only the tail is kept. The fishers from Spanish
Wells are spoken of with great disdain because the use large freezer boats and haul nets
to catch as much as possible. When the fishers of Exuma talk about either of these
methods, it is usually within the context of talking about things that you shouldn’t do in
the ocean, often in the case of fishers socializing in the afternoon. This is not simply the laying of blame on others, as when I questioned them, they were specific in what they think is appropriate behavior in the fishery, specifying acceptable gear restrictions. When I would ask if there were rules about fishing in the Exumas, I was treated to a litany of equipment that some fishers in the Bahamas use (nets, long-lines, compressors, bleach) that allow greater extraction of fishery resources. Most fishers in the Exumas will claim that use of this equipment disqualifies you as a fisherman, arguing it takes little training or understanding of the environment. One fisher stated, “Anyone can catch fish like that, you can even train a Haitian.”

The fishers of the Exumas cite the use of compressors as technique introduced by fishers from the Dominican Republic, making it a foreign technology. Rather than “fishermen,” most of the fishers of Exuma will call the people who use gear for greater extraction of fishery resources “rapists” who are destroying their future. “They are killing the sea. Its dumb, ‘cause one day there won’t be nothing left,” one fisher emphatically proclaimed. This appears to be more than a claim against kinds of gear, because it creates an identity of what would be called in the local idiom a “true-true Bahamian” fisher. This is a phrase that uses an English-speaking Caribbean pattern of doubling a word for emphasis, in this case specifying a double authenticity for Bahamian identity. Over half of the fishers in Williamstown, Mosstown, and Barratarre told me in interviews that they see large commercial fishing operations as an abandonment of Bahamian culture, to the detriment of the environment and the people who depend on it for subsistence.

26 Haitian nationality is a racialized discourse in the Bahamas, and this was a deliberate insult.
This is a marked contrast to the people I spoke with who live in and work out of Nassau. For instance, there was a woman visiting Exuma who told me at the airport when we were departing that she was looking forward to going home to a place where people fished. She reported that in her time on Exuma (just under a month), she hadn’t eaten any fish and was under the assumption that not only is fish not sold in Exuma, but that most people do not fish. This is markedly different from my experience in Exuma, because I have observed widespread fishing activity first-hand. In the course of my interviews most people described their fishing activities, and I have seen fish for sale to take home in Stuart Manor, Steventon, and several places in Georgetown (including the fish fry). During all six trips to the Exumas that I have made, I was able to eat fish on a daily basis. Many people tell me in interviews that they eat fish every day, and some people with whom I spoke in Mosstown, Barratarre, Williamstown, and Georgetown have stated they eat no meat that doesn’t come from the sea. However, without the local knowledge of when and where to obtain fish, due to the lack of a fish market, it appears to the aforementioned woman who had been there for a month, that fish are not caught and sold in Exuma outside of restaurants. This perhaps leads to a misperception, based on the lack of good data and local knowledge, that there is a minimal consumption of ocean resources by the people of Exuma.

My casual conversations with people in Nassau confirm that there appears to be a wide perception that the people of Exuma do not fish. In a conversation with a group of fishers at Arawak Cay, self-described fishermen told me repeatedly that people do not fish in Exuma. When I explained my experiences of fishing in Exuma and the methods
they use, I was essentially told by these fishermen in Nassau, “That isn’t fishing!” In Nassau, the people who claimed to me the identity of ‘fishermen’ associated large boats and scaled-up extractive gear to be fishing proper, while the painstaking work of the fishers in Exuma is viewed as a hobby. This conversation was repeated almost identically talking with people on the docks at Potter’s Cay, and with fishermen who talked to me at night at the fish fry on Arawak Cay, suggesting that in Nassau at the very least, and possibly Abaco and Spanish Wells, that “fishermen” are perceived as only those people involved in industrial scale fishery extraction.

This suggests that it would be appropriate to consider the identity of a “fisherman” a concept that produces a kind of territorialization of the ocean, based on who should have the rights to work in the sea. In the Exumas, industrial fishery operations are frowned upon, suggesting that the fishermen there hold tight to their place-based identity, based on the kind of gear used in the Exumas. They claim that their fishing methods are the only ones that should be allowed within all Bahamian waters. In establishing this claim about the acceptable forms of fishing activity, the fishermen of the Exumas are making a claim to the whole of the sea as true members of the Bahamian nation, and therefore the nation-state. This is important because part of the national identity of a “true-true Bahamian” includes fishing activity (Glinton-Meicholas 1994).

However, as these differing claims about who can claim that identity illustrates, there is a division between Nassau and the Exuma. This raises the question of who should be listened to in debates about proximate resources in the Exumas, and perhaps all the Family Islands of the Bahamas. The claim by people in the Exumas to a strong identity as
fishers based on the kinds of gear that they use, has led many local small-scale fishers to suggest that at the very least, kinds of gear that allow for greater extraction should be eliminated from the waters around Exuma, resulting in an exclusion of fishers from other islands where fishing gear such as compressors has been widely adopted. There is currently one fishing boat in the Exumas that uses compressors, but when I interviewed the captain he expressed ambivalence about his continued use of this technology. “I have a large boat and I run three compressors. But if they told me to stop tomorrow, I would. It’s not good for the sea. I plan on putting my kids through college and then I’m going to quit.”

The identity claims to the title of fisherman in the Exumas, which jumps scale from the local to that of the nation-state, suggests that via their identity, the fishers are engaging in a territorialization that seeks to claim the sea for their way of life over others. The commercial fishery in the Bahamas has developed rapidly over the last two decades, and the effects of this development have entered the waters surrounding Exuma in more recent years. Because most of the fishers in Exuma still fish using traditional gear, such as the Hawaiian sling, their participation in the wider economic process of fishery expansion has been limited. The development of the export fishery began in the north, and fishers in New Providence, Eleuthera, and Abaco exploited closer resources first, and the methods of large-scale fishery operation have not diffused to Exuma in any lasting way. At the present time, the fishers of Exuma are experiencing environmental degradation caused by the expansion of the northern fishing fleets to more distant grounds, and choose to (loudly) reject this as unacceptable. I cannot authoritatively say
this resistance to degradation will continue, as younger fishers in the Exumas seek work crewing on boats with compressors, and larger boats are purchased to compensate for the declining resources and the need to extend time at sea. However, at this time, many of the fishers of Exuma predominantly reject these methods as being un-Bahamian. This claim reverberates to the core of national identity, by suggesting that it is a matter of civic pride to refrain from specific activities.

Because the majority of the population of the Bahamas is situated along with the highly capitalized fishery of north, this identity claim to being true Bahamian fishers will likely not gain purchase outside of the Family Islands. However, by making this claim the fishers of Exuma are in effect claiming that their practices should be the norm for the nation. They are making a claim that the territorial waters of the nation-state should be exploited using their methods, and arguing that any true citizen will not engage in practices that degrade the ocean. While they are citizens of the nation-state and its territory, by claiming an identity of true Bahamian based on fishing methodology, they are by extension claiming the whole of the territory for their lifeways. This is a territorialization from the bottom-up that will probably be unsuccessful, but that creates a claim to local identity that the people wish to see enforced in their adjacent waters. While they wish to see the fishers of the nation of the Bahamas change their practices, in truth these practices are established for the last two decades and unlikely to change. Instead, the fishers are arguing that these practices should at a minimum be banned within the range of the boats of Exuma, in effect territorializing the waters around Exuma.
Reimagining Conservation Territory and Practice

Closely related to the identity claims discussed above are the claims made by the fishers of the Exumas as to how the fishery should be managed. When discussing the future of the fishery, conversation can get quite heated as what the exact cause of the decline in ocean quality could be. While blame is easily assigned to large vessels using methods deemed unsustainable by the fishers of the Exumas, some fishers also propose the reflexive question of whether their own daily needs have an impact. Many people are in fact supportive of the idea of closing a portion of the sea through the creation of an MPA. There is however little cognizance that these areas would ban all activities, as many people in the Exumas do not generally view their activities as the driver of the problem. When speaking about MPAs people discuss them as areas to protect local resources for local people. Those who are informed as to the no-take status of these proposed MPAs, view them as doomed to failure precisely because of the use value of the areas for local people. In conversation with people, they propose alternate strategies such as restricting areas for only certain kinds of fishing, or banning certain fishing activities within the Exumas altogether. While these suggestions are not univocal, they do suggest a different kind of territorialization.

While the claim to the identity of fisher suggests an attempt to overwrite citizenship with the Commonwealth of the Bahamas, the management suggestions operate at a more local scale. In making claims about how conservation should be effected in the waters around the Exumas, there is a territorialization of the ocean that claims that these waters should be managed for the people of the Exumas. If these
management suggestions are to be taken seriously, they will in effect create a fishing
ground with rules created by the people of the Exumas for their benefit. They are arguing
for regulation that benefits their household economy and sustains their traditional way of
fishing. This is not a rejection of conservation, but rather a rejection of the spatialized
strategy of MPAs as an effective way to sustain the fishery, as they see no future for the
fishery if their activities are restricted, yet other activities are allowed to continue.

Given the strong sentiments over the need for some form of conservation
expressed by the people of Exuma in the course of my interviews (see also Stoffle et al.
2008; Stoffle and Minnis 2008) I decided to ask the question of how the fishers of Exuma
would manage the oceans if they were put in charge, assuming they had control of a
territory over which they had input to regulatory control. This was in part an effort to see
if territorialization was taking place, through the idea that if fishers had ideas about the
control of their proximate ocean this would be an expression of control over space, which
following Sack (1986) would suggest territoriality. Many people were initially reluctant
to answer the question, deferring that they could never be in that situation, but once the
conversation started, overall they offered a number of positive suggestions about how
they want the ocean near the Exumas managed. What follows is a discussion of both what
fishers said directly about how they want to see the ocean managed near their
communities, and suggestions for ways to think differently about the waters near Exuma
based on discussions with the people who live there. Given the freedom to create their
own imaginaries, the people of the Exumas territorialize the ocean in interesting ways.
These ideas about management were checked in 2010 using the document found in Appendix C.

**Gear Restrictions** - As noted above, the fishers of Exuma base part of their identity on the kind of gear that they use. The people of Exuma are widely opposed to the use of compressors for harvesting because they say it allows for an over-harvest and the complete cleaning out of a shoal. A fishing captain I spoke with who used a compressor on his fishing boat said that he thought they were bad for the environment, and that he was only using them to compete against other fishers working the traditional fishing grounds of the people of the Exumas. Not surprisingly, many of the fishers of Exuma support a complete ban of compressors in fishing. When I asked if that was unrealistic given the large investment in equipment people have made, I was told repeatedly that the fishery was not capable of sustaining this kind of extraction over time, and the people of Exuma insist a total ban is the only solution. An interview with two fishers in the Exumas who stated they use compressors, showed that they are now exploiting depths of up to 130 feet (in violation of Bahamian law: Chapter 244 Fisheries Resources (Jurisdiction and Conservation)). Their reasoning was that they were not finding crawfish in shallower water up to the permissible depth of 100 feet, and therefore to preserve their income they needed to break the law.

Similar thoughts about gear bans were provided by many fishers in Exuma about haul nets and long-lines, as there have been a number of incidents over the years in which the by-catch of large fishing vessels resulting in large fish kills appearing on the shores of Exuma. The fishers of Exuma insist that large-scale fishing needs to be stopped to avoid
killing the sea, specifically in the areas they fish. While more than half of the fishers interviewed argue that these practices should be banned throughout the nation, the frame of reference always comes back to the local and the way these practices have impacted their lives.

In talking with groups of fishers about my initial research findings, all fishers agreed with this logic as stated in the report, which was based on private interviews. The reasons cited for needing to ban these practices come back to their experiences as an island community of fish kills, bleached reefs, and depletion of local resources. These conversations are sometimes marked by extreme contrasts. Within the same conversation, a fisher will begin by talking of the endless bounty of the sea, and then turn to the decline in local availability of fish due to new practices moving into the area that he feels are killing off their fish. Yet, when I began talking with people in 2001 about MPAs, many at the time stated that they were unnecessary in the Exumas due to the abundance of fish year after year. Once the effects of overfishing began to be felt locally and expressed in the course of my interviews in 2009 and 2010, the placed-based identity of fishers in the Exumas started to weigh into conversations about the need for conservation. In essence, it appears the fishers are responding to changes in the local ocean that has led them to call for a change in practice in the local sea, that if not banned outright, would at least be banned in the areas that the people of Exuma usually fish. This is a localized territorialization that makes a claim that only specific practices should be allowed in Exuma waters, namely their traditional extraction methods. Similarly, when fishers in Exuma talk about a nationwide ban, they are in effect transferring their ideas about what
activities are acceptable towards the nation, and performing a territorialization that claims the whole of the oceans to belong to only a specific kind of fisher. While they will claim the sea is open to all, when faced with declining resources, certain practices are loudly rejected in the local communities, in both their customary fishing areas and the wider ocean.

While they tend to scale up to the level of the nation when talking about banning such practices as part of a group, some will also concede in private that they think this is unlikely. However, these fishers then suggested to me that the notion of marine reserves could instead be used to designate areas in which only certain kinds of fishing are allowed, for only local people. Because these limitations would benefit the fishers of the Exumas while excluding larger operations, essentially they are asking for areas to be designated for their exclusive use as artisanal fishers, resulting in a territorial formation that would create a local fishing zone restricted to only local traditional fishing practices.

**Spawning** - Another suggestion that fishers in the Exumas brought up frequently was to put a ban on fishing grouper spawning aggregations (and this was indeed proposed in the initial scientific review by Stoner, Hixon, and Dahlgren). It is felt by many of the fishers I interviewed in Williamstown, Exuma that one of the proposed MPAs in the area between Little Exuma and Long Island was designed specifically to protect such aggregations as well of a number of shoals that fishers in now report to be bleached. While the Department of Marine Resources assures me this MPA is indeed being considered, I am unable to provide a map because it is always described as the “area near Black Rocks” without firm boundaries. This is a small set of rocky outcrops that can be
seen from the north side of Little Exuma, just east of the Exuma mainland. Fishers from both Exuma and Long Island report they have fished in what is probably some portion of the area proposed for the MPA near Black Rocks for grouper and snapper, both of which have been known to spawn in the area.

Figure 13: Black Rocks, as seen from Williamstown

However, this practice is more complex than simply targeting a large aggregation of fish. Fishers from Williamstown in the southeast to Stuart Manor in the northwest of the mainland also claimed that they have historically defended these spawning areas. As described by six different individuals, in the recent past fishers would station themselves
near the spawning aggregations with shotguns to defend the fish for a time from hauling vessels reported to be from Spanish Wells, and allow time for the fish to breed. As they describe it, they would threaten to shoot people who travelled down the cays to use nets to perform a large haul. As one fisherman put it, “If you were trying to make a baby with your wife, and I came in and shot you, before too long there wouldn’t be many people left.” These fishers are opposed to the idea of taking large amounts of fish out of spawning aggregations. However, after an aggregation appears to be declining in intensity, the local fishers then use lines to haul out fish individually, giving the fish a few days to reproduce but also targeting. The fact that these areas were both exploited and defended suggest that there is a form of resource territorialization occurring. Because aggregations reoccur in the same general area year after year, the local fishermen have declared certain areas off limits from specific practices, and effected a territory, despite their claims that it is not, and that only certain behaviors are forbidden.

However, in 2010 the fishers of Williamstown reported that the coral reefs in the area have become bleached, and they now consider it to be mostly a dead zone. In the case of red snapper spawning, the fish are described by the fishermen of Williamstown as running up the Jumentos Cays, which stretch between 70-30 miles south of Little Exuma, before finally arriving between Exuma and Long Island to spawn. Several fishers in the Williamstown area suggested that snapper needs to be protected on the way to spawning, down the Jumentos Cays, lest the spawning grounds that they line fish collapse, as a result of increased pressure as the fish run north. Claims as to the need for such a protection are another form of territorialization, as if these protections were to be enacted,
they would be for the purpose of allowing the fish to reach the Exumas where the traditional methods of line fishing would be used, rather than haul nets. By claiming that the wider sea needs to be protected so that spawning can occur in the Exumas, this is more than asking for protection of biotic life. Instead, this is asking for protection of specific biotic life that occurs in a specific place for the well being of a specific people.

A marine biologist working in the Exuma Cays at one point in 2010 asked me whether fishers supported the present closed season, and if they felt that it worked. I reported to her that some fishers in the Exumas feel that it is working, but that it may not be enough, as the fish spawn when the water is “right,” rather than on a certain date. Fishers in the Exumas report that there appear to be more and larger Nassau Grouper than there were 10 years ago, but this is anecdotal. They do however argue that their historic practices are sustainable, and should be supported by imposing restrictions on where the wider fishing community should be allowed to target fish by protecting spawning grounds. In contrast to the views held by fishers in Exuma, I also spoke with two fishers in Nassau who insisted that spawning season is the “best time” to fish for grouper, because it made them easier to haul. This again is related to the difference in identity and gear between fishing communities. Behavior that is considered acceptable in Nassau has historically been defended against in the Exumas, effectively forcing other fishers out of waters that the people of the Exumas defended.

**Underwater Structures**- One discussion that is highly relevant to my interests in ocean territorialization is the use of “crawfish condos.” A crawfish condo is a semi-permanent structure that can be built using cinder blocks and sheet metal. They are
constructed by building a corral with the blocks on the seabed, with a small opening to allow entry by spiny lobsters. The sheet metal is then placed across the top and held in place with more blocks, mimicking the protective cover of a reef structure. In order to harvest a condo, a fisher needs only to block the opening and remove the cover to access the trapped lobsters. Because these structures are easily assembled and dismantled, they are not yet considered artificial reefs under Bahamian law.

Fishers in the Exumas express their understandings of these structures as a form of creating property in the oceans, a place that historically has no property rights. Because people enforce their rights to use a structure of their construction for exclusive harvest, similar to the ownership of fish traps, allowing the existence of a condo at all is described by fishers in Exuma as giving a person nearly exclusive rights to fish there. Nearly all of the fishers of Exumas state that in the wider oceans, condos should be banned, because they give a fisher a property right to lobsters, making them unavailable to other fishers within the Bahamian EEZ. Further, when asked about condos, they state that they feel it is a tool that allows the crawfish to be extracted at a rate beyond sustainability. Only one fisher I encountered in Exuma expressed support for condos, and as noted above, he also complained that he regularly found his structure destroyed. In the course of my interviews, I also identified one fisher who claimed to be the destroyer of this condo, because “them ting-ums don’t belong out there.”

Pending further scientific review, it is uncertain whether these structures provide additional habitat or are just a creative method to continue large and possibly unsustainable harvests. I am aware that there was violence related to these structures in
2010, and was told by individuals with the Bahamian Department of Marine Resources that the agency is aware of a need for legislation to eliminate the ambiguity of Crawfish Condos as property or an illegal artificial reef. However, the fishers of Exuma have for the most part indicated that they do not want them in their local ocean, as they territorialize the ocean through the property form. In the course of my interviews, I identified two other fishers beyond the first who claimed that in the course of their regular trips, they were the ones who tore down the above-mentioned fisher’s condos, because they don’t want them in the local sea. This then provides three instances of fishers defending the local ocean through tactics to subvert a specific practice, suggesting that the fishers of Exuma are indeed taking control of the ocean by resorting to tactics that are not supported by law, but that are territorializing the ocean nonetheless.

**Periodic Closures—** The year 2009 saw a bottoming out of lobster price globally, due to a number of factors, including the closure of the processing industry in Canada. The rumor at the time reported by large numbers of the lobster fishermen of Exuma, was that South Africa had used a multi-year closure and were now reaping the benefits, and these fisherman floated the possibility that certain fisheries should be closed for at least a full year from time to time to allow stocks to recover. While the collapse of the global lobster price seems to instead be the result of Canadian canneries closing, leading to a global influx of Maine Lobster to compete with Rock Lobsters, the story of a multi-year closure has influenced the fishers of Exuma in their thinking of how to manage a dwindling resource. The people of Exuma suggested that the crawfish season be closed within Bahamian waters for a minimum of three years to allow for growth. While the
people of Exuma generally seem to support this idea, despite the obvious economic hardships, the fishers of Nassau told me they oppose this measure due to large capital investments in gear that allow them to seek lobster at greater depths (See the identity discussion above). Again, by deploying a management strategy that would benefit smaller scale free divers, the fishers of Exuma are claiming their identity to argue that their methods of fishing are the proper form of extraction, and arguing for the nation to control the whole of the fishery in a way that supports smaller scale fishers. In essence, they want a fishery that protects their interests, and wants the nation to follow their lead and local knowledge. This is a territorialization that scales up, as they talk about how their local practices should become a standard for the territorial waters of the nation-state.

**Enforcement Issues** - The fishers of Exuma seem to have a perception that fishing activities are often legislated and for the most part respected, but rarely enforced. As examples, they cite continued poaching in the ECLSP, the inability of the single fisheries officer without a boat to police all landings in Great Exuma, and the general lack of police and defense force presence when it comes to enforcing fisheries regulation. My analysis suggests this problem has two tiers. The first tier is enforcement of regulations against Bahamian citizens. In general people have respect for the laws of their country, but, as they say, some “bad elements” have started to creep in, with people taking advantage of the lack of enforcement. Most fishers on Exuma have stated they would like to see a level playing field, where all people follow the rules, and therefore have equal opportunities. I was given the following example talking to a fisher in Williamstown. If a person starts poaching or fishing out of season, and nothing happens, other people might
see this as an incentive to be just as competitive, leading to expanded illegal fishing activities. The fishers of Exuma who claim to follow the letter of the law state that highly visible enforcement across government agencies, which would be an expression of the territory of the nation-state, as one tool to ensure the long-term viability of the fishery.

The second tier of the problem I have observed since 2001 derives from foreign visitors (including commercial poaching). While all visitors to the Bahamas legally should know the fishing regulations, a lack of enforcement both in the Bahamas and their home countries allows some people to behave as if there were no regulations. Over the course of many years I have talked to a number of tourists who see the Exumas as a place to come fish as much as they want, many claiming either to not know that their activities were unlawful, or else to boast that nobody would stop them anyhow. One ‘cruiser’ I spoke with, claimed that they paid for their trip expenses by harvesting crawfish and exporting them to the US. Another tourist told me on the flight down in 2009 that there were no fishing limits, and that no one had ever asked any questions of him when he left the country with a couple hundred pounds of Caribbean Spiny Lobster.

The math of how much tourists might be extracting is troublesome. If for example, only 10% of the 150,195 of the recorded sea arrivals of people in small crafts (Bahamas Ministry of Tourism 2011) were to remove the reported 200 pounds of Spiny Lobster, this would be the equivalent of removing over 1500 tons of lobster on an annual basis. The people of the Exumas report that this is a grave concern for them, and frequently describe yachters as thieves. Some fishers complained about the way that yachter restricted their fishing activities, as the tourists are territorial about the areas
around their anchorage. The fishers who make these complaints see this as a further encroachment on ‘their’ sea. Tourists are reported by fishers who deal with them, to claim that no fishing activities are permissible in any area near their anchorage, and some fishers have complained that tourists use locally owned fish pots to provision their boats. These claims are not verifiable at this time, but if true represent a further taking of ocean resources that has not been accounted for in the logic of the present conservation plans. The complaints about tourists are also tempered somewhat because the fishers of Exuma are wary of scaring off tourists as they are necessary source of cash income for the islands. At the same time, they say that failure to enforce the law equally is creating a system of legitimized poaching by foreign nationals in waters that they feel should be reserved for the exclusive use of Bahamians. There are other issues with visitors to the Exumas discussed below, that fishers in the Exumas raise separately from the discussion of the yachting community.

**Foreign Fishers** - With the expansion of tourism that has been made possible due to improvements to the airport and expanded places to stay on Great Exuma, there has been growth in the total tourist landings over the last decade (Bahamas Ministry of Tourism 2011). As noted above, one reported part of the problem with the bonefishery is that while there are many places that the local bonefishers in Exuma have historically used for their guided activities, development of private residences on the island’s south side has led to competition over bonefish flats. Local people report that these private houses are being rented out to people who want to bonefish without a guide, and as a result this both drives the local people out of their traditional livelihood spaces and
degrades the environment through what locals say are unsustainable practices. This reduces the economic support of the island because rents are paid off-island to the foreign owners of these houses, and bonefishers lose out on employment opportunities. Part of the discussion with the bonefish guides of the Exumas included their opinions of whether foreigners should have to be licensed differently than local people, advocating for a large use tax for fishers who did not want to hire a guide. On a similar note, fishers of species targeted for consumption or sale repeatedly asked of me why foreign visitors are not required to buy a license for all fishing activity within Bahamian waters, rather than just sportfishing. Bonefish guides also specifically questioned why tourists can buy a license with no oversight of what actual fishing practices are. While I could not answer these questions, I will state that they are expressions of a desire to have more control over the ways that fishery resources are allocated.

When talking with local bonefish guides, an example was raised of how sustainable enforcement and regulation might change would involve a multi-tiered license structure. This might be a bonefish guide who pays $40 for an annual license to have access to the fishery, but instead a tourist might pay $600 for the same license without a guide. This would still allow tourists the option to fish without a guide if they wished and provide a revenue stream for the government, but for some it would be more economical to hire a guide and use the guide’s fishing license at a day rate of $300, putting money instead into the local economy. This would again change the ways that space is controlled, using economic means to create spaces that are territorialized by local
people, through both a formal licensing mechanism, and informal social arrangements of fishing territories.

**Parks and MPAs** - At the present time, the fishers of Exuma report that they feel like the more sustainable nature of their fishing methods has resulted in a healthier ecosystem. That this relative health has then been targeted for conservation through withdrawal by the state is described by many fishers as unjust, or unfair, because as they say, “We aren’t the problem!” These fishers claim that the sea is in better shape in the Exumas because they don’t over-harvest, as their gear doesn’t permit massive hauls. In addition, a small number of fishers cited the breeding ground of the Exuma Cays Land and Sea Park as a source of natural beauty and a healthy fish population. Several fishers have told me that they appreciate the beauty and biodiversity of the ECSLP and maintain that they like to visit the park to look around. One fisher also noted that after a day of “just looking,” he liked to go just outside the park and fish, taking advantage of the spillover effect that allow fishers to harvest good catches outside the park boundaries. The long-term existence of the ECLSP has both contributed to the health of the local ocean and become a source of contention. The contention over the existence of the park is important precisely because of the ways it has transformed control over ocean spaces.

The debates about this park are well known, and do not need to be reiterated in depth here (see for example Mascia 2004). However, the historical status of the ECLSP as a reserve that forbade locals to fish, while allowing foreign nationals to continue extracting until the mid-1980’s is a part of the cultural memory of the people of the Exumas. While enforcement of regulations is currently the same for visitors and locals
alike, fishers in Little Farmers Cay, Stuart Manor, and Barratarre all have a memory of a
time when tourists could fish in an area that they couldn’t and more than half insist that it
still happens to some degree today. A fisher from Black Point who was visiting
Georgetown for the day recounted that poaching still happens in the ECLSP. He was an
older man and noted that he no longer fishes beyond sustenance. He told me that he
regularly likes to visit the area for a day trip to see a marine environment that is healthy.
He did however say that some younger fishers like to use a two-boat strategy to try to fish
in the ECLSP by having a non-fishing boat at one end of the park to distract the warden,
while extraction occurs at the other end of the park. This is identical to the strategy for
poaching in the ECLSP that Mascia (2004) recorded. Because the ECLSP, which has
been under some form of protection since 1959, is part of the customary fishing grounds
of people from Blacks Point, Barratarre, and Little Farmers Cay, the continued poaching
in the area illustrates the difficulty of enforcing an MPA that removes access to a
historical use area.

There is a tendency to view poaching activities as a transgression against the state,
but it can also be read as a re-territorialization. By continuing to use areas that have been
withdrawn from use, poachers are effecting a claim to the territory through their
practices, in effect claiming the area for local use in spite of the regulatory framework
(Ogden 2011). This is an active but underground form of territorialization, suggesting
that the law is out of step with the historical claims of local people, and this creates an
entanglement of regulation, policing, and outlaws that are in some ways supported by the
local communities. Without strong enforcement or buy-in from local fishers (see National
Research Council 2001) the long-term success of any protected area is threatened by people who are still trying to make a living from their customary fish drops. There also is a small but vocal movement known as Save the Exuma Park (STEP) that advocates a return of management of the ECLSP to local people, in order to better enforce protection, while also allowing some local access.

As noted in Chapter 5, with the establishment of the Moriah Harbour Cay National Park in 2002, there is a now second park that affects access to marine resources for the people of the Exumas. Because many fishers use traps within the boundaries of the park, and have done so for a long time, enforcement of this particular rule in the future is described as a hardship. If this park were fully withdrawn from use by the addition of a warden, in addition to the potential creation of two Marine Protected Areas that will affect Exuma fishers, the people in the Exumas say that planned conservation efforts would severely limit the ability of people in the Exumas to continue to make their livelihood using marine resources. The perception of many fishers is that the government is trying to take away all the fish from the people who depend on the local ocean as a food source. A small number of fishers say this as a power grab by foreigners (including British ex-patriots with Bahamian citizenship who live in the Exumas) to promote private reserves in the sea, and prevent the people of Exuma from using the beaches and ocean in front of private property. Others have publicly said they are suspect of this particular researcher’s involvement, and have accused me of trying to single-handedly create MPAs to limit the ability of local people to make a living and thereby re-colonize the Bahamas for foreign nationals. They view marine protection as a territorial practice that in general
takes away the sovereignty of the Bahamas, and in specific takes away ‘their’ sea. While the people of Exuma will tell you that they do not own the sea, and therefore do not have a territory, their response to withdrawal is to enact a territorialization that at the very least claims that protection of the sea should be done by and for the people of the Exumas.

In the ten-year span in which I made six trips to interview people in the Exumas about their views of conservation, I have watched the conservation territory in the Exumas change shape. To me, a total of four strict no-take zones in Exuma seems both ambitious, and a hardship that would likely result in widespread poaching by many people who are only trying to make a modest living. If these MPAs are all created, the fishers will in effect re-territorialize the conservation withdrawals through their practices that continue to use areas despite their removal on paper. While there is some commercial fishing in Exuma on a small scale, the majority of fishing activity is related to subsistence activity and many people will not willingly give this up. The ECLSP was gradually implemented, yet it is still re-territorialized today through the practice of poaching, both because of the abundance to be found there, and historical use patterns.

Discussion

In light of the above findings, both in terms of how people are making claims to continued use of customary fishing areas, and the strong ideas that local people have about how they would manage the sea near their communities, I wish to return now to the idea of territorialization. While all of the areas under discussion are within the Bahamian Territorial Waters, I wish to talk about territorialization in a way that changes the nature
of territory from a juridical state-based concept, into a mode of thinking that reflects human efforts to control spaces. While Chapter 4 begun to unpack the ways in which territory and human territoriality as a concept intersect, I wish to now pay attention to the verb form of territorialization to consider how the people of Exuma are voicing their desires about the control of ocean spaces.

Because the concept of territory in Western thought has become rooted in the notion that only states have territory, it has a tendency to embed the idea of human territoriality into a framework of nationalism and sovereignty. While this is a useful concept when trying to understand disputes in the realm of international relations, it also subsumes individual and collective forms of territoriality that in fact take place at a localized geographic scale. While there has been some discussion about the relation of private property to the territory of the nation, it always redirects the attention to nation, either as the sum of its parts, or as the grantor of rights. Mansfield (2005), in her discussion of the importance of the nation-state as a key scale of analysis, has suggested that we consider scale as a “dimension of practice.” I wish to argue that territory, as the province of the nation-state, is an important concept that should not be discarded. However territoriality, unlike state territories, is performed or practiced at a variety of scales. People makes claims to control of space across scales, and the scale of analysis that you choose can make territoriality more or less visible. In this case, by focusing on the people of the Exumas I wish to consider territoriality at a scale that renders non-state territorialization of the ocean visible.
Concentrating on the people of the Exumas and their proximate waters opens up spaces for a different politics of the ocean. While others such as Stoffle and Minnis (2010) have used the notions of usufruct or commons to make a claim for the people of the Exumas as stakeholders in the MPA creation process, these concepts make an argument for continued access to territorial waters on the basis of historical practice. I want to suggest that while this is an important part of the discussion, it overlooks the fact that historical access is not a claim of power over the spaces or resources in question. Use areas can be moved, and indeed have long been done so by people as space is partitioned through social process. Territoriality is of course part of this process of partitioning, and what can be seen in this case, is the territorialization in the oceans near Exuma in an effort to assert customary use as one factor that informs peoples desire to have more control over their environment.

The fishers of Exuma state clearly that they have never had a historical claim to the ocean. The law of the sea dictates that the sea is open to all Bahamians, and that is their first response when confronted with the idea of ocean territory. However, with the innovation of MPAs (including national parks), the character of this territory is changing through changing access regimes. By excluding people through conservation efforts, the openness of the sea itself has been changed. This results in a variety of responses, from “not in my backyard” opposition, to claims of ownership that can be linguistically observed in the term “our sea.” While the use of our sea in many initial interviews (2001-2003) can be attributed to the perception that outside researchers were pushing the idea of MPAs, the use of the term in 2009 and 2010 was decidedly different. While the fishers of
the Exumas perceive a wide variety of threats to their livelihood, MPAs are now only a part of the threat. When discussing the identity of fishers, the people of the Exumas now talk for example about the ways in which other Bahamians are extracting that degrade the ability of the fishers in the Exumas to compete. In effect they are claiming that the Exumas are different, and therefore the sea should be managed in a different way that acknowledges their historic practices and empowers them to continue into the future.

This leads to an interesting quandary for the policy actors in the Bahamas. Because the initial MPA proposal was focused on no-take Marine Reserves with no entry permitted, effort has long been put into trying to establish this plan. Yet, success stories of fishery management and ocean conservation around the world shows that diverse strategies are required (Mora et al. 2009). While the fortress model of conservation has been shown to work well in waters belonging to countries with a large police state, the Commonwealth of the Bahamas has few resources for policing their waters. What Mora et al. have found is that fishery conservation policy works better with local buy in and rule making in places without a military-industrial complex to support enforcement of regulations. The claims of the fishers of the Exumas that territorialize the ocean as an Exuman space that they are actively trying to defend suggest that they do indeed have a desire to buy into conservation, but not with terms that exclude them from their sea.
Chapter 7: Conclusions: MPAs as Re-territorializing Assemblages

The MPA creation process in the Bahamas does not innocently create spaces that protect the non-human world from its human predators. Instead, these conservation spaces are entangled with ecology, marine science, governance ideologies, capitalist over-exploitation, identity, and resistance. I have parsed out some strains of these entanglements, in order to both explain the logics behind MPAs and also some of the forms of resistance. I have argued that in both of these cases, there is a theme of territorialization that is used by different actors in different ways. However, as I have shown, these territorializations have uneven and perhaps contradictory effects that question the stability of what it is that MPAs actually do.

In the case of policy actors, their conceptions of how MPAs work are run through with the notions of resource management, and the state as the protector of resources. They use a spatial imaginary of the state as a territorial agent that can both withdraw spaces in the name of conservation, and devolve power over these spaces, again in the name of conservation. Within this spatial imaginary, there is no territory that can exist outside of the modern nation-state, and MPAs reflect this view by seeking to use state power to protect ‘nature.’ Even when policy actors seek solutions that devolve power, they still revert to the notion that the ocean must be enclosed, and those to whom power
is devolved will assume the role of protector on behalf of the nation-state. The spatial imaginaries of policy actors that drive the MPA creation process territorialize the ocean with conservation spaces that seek to mediate the effects of over-exploitation, yet they do not directly address the causes that are used to justify this exclusionary tactic. Instead, they engage in the habits of conservation that assume that the people to be excluded need governance, even if they are empowered as protectors, and this view of the world cannot account for the resistance that the people of the Exumas are expressing.

In contrast, the fishers of the Exuma Cays territorialize the ocean in a very different fashion. While there is little evidence of a pre-existing territory to be defended, now that MPAs have been proposed the people of the Exumas are responding in ways that re-territorialize the ocean. Through tactics such as identity claims, they are invoking territorializations that not only respond to MPAs, but also jump scale to make claims to the entire territorial waters of the Bahamas. While these claims are unlikely to be effected at the level of the nation-state, they also discursively position the people of the Exumas as the best protectors of the local ocean. Through their statements about their rights to the local ocean, they also undermine the logics of policy actors by creating an area that they intend to defend by actively re-territorializing conservation areas, either through outlaw practices, or arguing that power should be devolved to local people. I have argued that these claims have to potential to change the politics of the MPAs, specifically if these territorializations are recognized. Yet, neither policy actors, nor the fishers of the Exumas would consider their tactics to be one that involves territorialization, as both groups also
deploy the imaginary of a emptied ocean space that left alone, would neither be enclosed by the state or the fishers.

Because the ocean is historically weakly territorialized (Steinberg 2001), it provides a unique place to study the process of territorialization. While very little of the ocean has truly been *aqua nullius*, a space devoid of human influence, since the invention of the first boat, it has largely been engaged through geographic technologies as if they were an empty field. The most common representation of the ocean is as a blue surface, devoid of features except for landmasses, which are invariably named and well mapped. Yet with the advent of military technologies that made the oceans a carrier for violent forces, the oceans have transformed into something to be defended, namely the territory of both states and nations. While the nation-state in its modern form is the most common territorial agent in the oceans, there are also many competing examples of territorializing claims to the ocean. For example, colonized indigenous nations with long-standing claims to the ocean, such as the Seri Indians, the Miskito people of Nicaragua, and the Indian Nations of the Pacific Northwest in the USA still enforce their historical territories with strong juridical claims. I have shown that through discourse and practice, the people of the Exumas are also territorializing the ocean in response to the threat of MPAs, without prior claims to a territory. While these territorializations are in a state of becoming, and do not have juridical status, in some ways they present similar opportunities for overcoming the habits of conservation practice that assume withdrawal to be the ‘best’ solution.
The case of colonized peoples arguing for continued control of the oceans provides an interesting way into the problems I have addressed in the preceding pages, namely the territorialization of the ocean and the ways in which people resist the state-based model through counter-claims to control of ocean spaces, specifically in the context of resource conservation. While many indigenous peoples have a historical, and in some cases legally recognized claim to the oceans, these claims also represent resistance against a colonizing nation-state that uses territorial tactics as a form of force. For instance, the Boldt Decision (*United States v. Washington*, 384 F. Supp. 312) affirmed the right granted by treaty to Pacific Northwestern Tribes to participate in management decisions as partners with the State of Washington. While the participating tribes had seen an erosion of power over the previous two centuries, this case affirmed that they had legal standing in the management of fisheries in their traditional territorial water, and in fact devolved power to a sub-altern group. Examples such as this illustrate that the territorialization of the ocean is never as simple as a state deploying power over space.

In current literature about the ways that spatial strategies of conservation engage with other ideas about the world, one often sees the word entangled. This concept of entanglement (or sometimes assemblage) is perhaps a mistranslation. This term is translated from the French *agencement* (which literally means layout) as used by Deleuze and Guattari to explain the ways that ideas always operate in connections with other ideas, constructs, and political formations, with sometimes unpredictable results. In my engagement with the problematic of MPAs in the Bahamas, I have come to think about
how, rather than discrete objects, they are entangled with competing ideas about
management, politics, power, and the nature of fish (see also Wilkinson 2000).

In the ten years since I started studying the attempted creation of Marine
Protected Areas in the Bahamas, I have come to think that perhaps if we want to engage
Marine Protected Areas (MPAs) and their implications, that the explanation within the
marine science literature of what it is that an MPA does is not enough. They are of course
an enclosure with conservation goals embedded in the rule making system, but they are
also more than policy. They are in fact entangled in the politics of territorialization, the
management of fisheries, state power, and the relations of people to their environment.
Conservation areas do work, and the kind of work they do depends on how they
territorialize that space. For much of the history of conservation, the dominant mode of
operation was to create a territory of exclusion. This mode of operation effected state
power within its juridical territory to actively exclude people from a portion of the
environment, under the conceptual umbrella of preservation, or resource management
more recently. However the creation of the territories of exclusion is frequently
transgressed by people who continue to extract resources within a conservation area,
through multiple forms of illegal harvesting and poaching. These transgressive practices
produce another form of territorialization, which I termed a territorialization of
resistance. Continuing to use traditional patterns of extraction after an area has been
withdrawn is resistance to state power that is also tied to livelihood strategies and
household economy. Yet because these activities are illegal, this re-territorialization is
sub-altern and difficult to identify, and can fade over time (Ogden 2011). There is
however a form of territorialization that is coming into wider acceptance, and that is the production of a territory of inclusion. These territorial formations use traditional use to argue for conservation policies that include local people in management decisions, and in some cases devolve power from the nation-state to the local group. If a territorialization of resistance is acknowledged by the state, it has the potential to become a territory of inclusion. All of these are enclosures of the ocean, but can have different effects and outcomes. Below, I want to think seriously about the ways in which the Marine Protected Areas proposed in the Bahamas are territorializing the ocean, and try to see if we cannot think through this process as dependent of context, rather than simply a partitioning of space that produces a conservation area.

While the ocean is a latecomer to the concept of enclosure, currently it is being transformed into a series of enclosed and open spaces that are contested on multiple scales (Mansfield 2007a, 2007b). As I have shown, this is not simply a case of a generalized human territoriality moving into the oceans, nor can we discount the ways in which territoriality by states, fishers, conservationists and scientists are working to transform the oceans into a series of bounded spaces. While the term MPA is used to cover a wide variety of conservation measures, including marine reserves, spatialized gear restrictions, areas limited to artisanal fishing or specific groups, and several other spatially distinct conservation tactics, I want return our attention to the ways in which these spaces are both contested and adopted as re-territorialized assemblages. While the ocean is not simply a blank field on which these re-territorializations occur, neither can it be said to be strongly territorialized in the Bahamian context prior to these actions. Yet,
there is a politics of resistance that is called forth by attempts to create MPAs in the Exumas that suggest that we should investigate the implications of the multiple entanglements of MPAs as a spatialized object.

**Territorialization of the oceans as a scale dependent field**

While Deleuze and Guattari (1987) suggest that the proper place to begin any investigation is in the middle, the begs the question “the middle of what?” While an MPA is an object that occurs under the auspices of the nation-state, changing the scale of analysis allows one to describe phenomena in different ways. If we are to take seriously the idea that an MPA territorializes the ocean, we must attend to the ways that changing the scale of analysis allows us to see different territorializations. While there are many different ways to approach the problem of scale, I wish to briefly examine the territorialization of the ocean through three scales, all drawn from my research in the Bahamas. While I am aware that the order of my approach could imply a nested hierarchy, for ease of organization I wish to move from broadest to most personal, questioning the territorialization of the ocean through the nation-state, through the sense of the local, and through the sense of self-identity. I use this simplified scheme to render legible the territorializing processes I have identified above, without making claims for the primacy of any particular scale as each renders different possibilities.

When observed from the scale of the nation-state, it goes largely unquestioned that not only are states bound to territory, but that this territory can change over time through treaties, wars, and alliances. A nation-state has jurisdiction within its territorial
waters, and can enforce criminal codes and civil laws to govern the behavior of its citizens, and foreign nationals that may enter said waters for the purpose of innocent passage. The scale of the nation-state has great purchase within the literature related to territory in International Relations and some of the geographic literature. This is perhaps because the nation state in international law has the exclusive right to use force within its boundaries, and also the right to make war outside of its territory (Elden 2009). This exclusivity of force gives the nation state the right to police its territory, and MPAs are within the purview of the state within territorial waters.

MPAs are therefore easily conceived as a regulatory framework that exists due to the right of the sovereign to make rules about behavior for its citizenry. When observed at this scale, marine conservation is seen as bound to the state through its sovereign power. However, the goals of resource management at this scale are bound to a discourse of “eco-knowledge and geo-power” (Luke 1995), taking on the form of what Foucault referred to as biopolitics (Foucault 2007). Resource over-extraction by fishers is often calculated at the level of the population, as are the resources themselves, with the assumption that the goal is management of production. This then glosses over the ways in which specific actors in the environment may be creating disproportionate impacts, while seeking to alter the behavior patterns of the entire population. When a part of the sea is withdrawn from public use, it sets up a territory of the state, which treats all potential users equally within a neoliberal productive matrix. So while the state is seeking a solution to resource management that uses a spatial object in the form of a protected area that is withdrawn from public use, it does not in fact account for the users themselves of
the spaces except as a generalized population. Some users may account for greater use, while others may have a greater direct dependence on ocean resources, reflecting a basic economic inequality.

The scale of the nation-state is therefore not necessarily the best scale to analyze the territorialization of the oceans through conservation areas, as it cannot account for counter-claims to equitable use of ocean resources. While the nation state has the exclusive jurisdiction in international law to control its territory, it provides too gross an analysis when looking for territorialization as a process. In the case of the Bahamas, the declaration by the Department of Marine Resources that they would pursue the creation of over 30 no-take marine reserves to offset a perceived overexploitation of fishery resources has led to resistance which occurs at both the national level, and from multiple sub-national localities. While at the national level, the discourse of resistance is directed towards expansion of the economic wealth of the nation, a number of subgroups have raised varied objections that reinforce or challenge this discourse. In the case of larger fishing operations in on the Islands of New Providence, Eleuthera, and Grand Bahama, the objections have largely been voiced against the closure of areas in counter to the idea that fishing operations should be expanded to increase income from fishery exports. These discourses are largely framed within the scale of the nation-state, and claims that a change in policy will affect all Bahamian people by reducing their ability to participate in the global fishery markets.

There is alternatively a second discourse at play that shifts the scale away from that of the nation-state. While the national policy largely responds to the impacts within
territorial waters from a generalized population, there is a shift in scale of the objections as one moves away from considering the large commercial fishing fleets. Because of the tendency to first exploit closer areas, many of the proximate seas to large operations were considered too degraded and too politically volatile to be considered for conservation areas (Stoner, Hixon, and Dahlgren 1999). In making siting decisions for Bahamian MPAs, the scientific review panel deliberately sought areas that had relatively intact ecosystem function, and a low level of commercial fishing activity that also had nearby communities for enforcement purposes. This created a scalar mismatch that sought to create a national policy that simultaneously sought to include local people in outlying communities as enforcers, but also excluded the same people from extractive activities. By seeking to create a national conservation regime, local claims to access and control of the ocean were overwritten.

In the Bahamian context, this has resulted in a territorialization of the ocean that appears at the scale of the local community, albeit one that is outside of the present regulatory framework. While there is indeed precedent for the territorialization of the oceans in a sub-national context, these examples are largely found in the context of colonized indigenous peoples. The local people of the Bahamas are instead mostly the descendants of former slaves who lived under the governance of the United Kingdom, and now are part of the Commonwealth. There is no history of territorial control in the Bahamas outside of the history of the British Navy, and later the Bahamian Defense Force, and therefore any territorial claims by local communities would seem to be without precedent in context. This does not mean that the local communities are
incapable of making territorial claims to the ocean, but rather that there is no legal history of such claims as enforceable in the present juridical framework.

However, the proposition of any specific MPA potentially re-scales the discourse from a national to a local level, precisely because MPAs are always local in nature. Rather than attending to the dominant frame of national resources, people who will be directly affected by an MPA will shift the discourse in a way that re-territorializes the ocean on a local scale. While the law of the sea says that territorial waters are of the nation, and any citizens may have an equal claim, when an area is withdrawn that claim moves from the generalized national sense to a local claim of “our” sea. This is because the impacts are predominantly experienced on a local scale, and resistance takes the form of struggle over continued access to proximate resources. Seen this way, MPAs are constructed by the state as a territory from above that is reinscribed by local people in terms of a local right to control the spaces in question, calling forth a territorialization that may not have existed prior to an attempt at withdrawal.

This moves beyond the concept of NIMBYism because rather than simply objecting on the basis of finding another more suitable location (Burningham, Barnett, and Thrush 2006), fishers who are dependent on near-shore resources for economic resources are making a claim to the spaces in question as their own for their own purposes. Writ large, territoriality can be read as a general statement of attempting to control a space (Sack 1986). This does not however ensure that a territory will come into being, it is instead only an attempt at control. Yet, local groups in the Exumas are trying to assert control over their resource bases, through legislation, protest, and direct action.
Before the MPA proposal was floated in the Bahamas, fishers attempted to protect areas from what they saw as irresponsible activity by people from outside the local area with threats of violence (Dahlgren 2001). This did not establish these claims as territory, but rather appeared as a territoriality that is a precursor to territorialization. However, when these claims engage the political process and attempt to assert that control should be devolved towards the well being of a local community, this is in fact a territorialization as an active process, regardless of success, or the prior existence of a inscribed historical territory. By proposing MPAs in the central Bahamas, the state has called forth resistance that is taking the forms of territorial claims for local people, within an ocean that had previously been held as open access for all citizens.

While people interviewed between 2001-2010 objected to the idea that a territory owned by the local people could defended for local people only, they also strongly objected to the idea that “their” sea could be removed from their continued use. These repeated references to their sea are a territoriality that lurks outside of the state model, inscribing the sea within the existing framework, but also resisting the sovereign right to control its territory. Because they recognize their entanglements with the territory of the nation-state, local people are aware that they cannot make a claim that supersedes those claims to enforce a territory outside of the state. However, they also tentatively support another possibility; that of the state creating protected areas for their exclusive use. This would in effect territorialize the oceans within the state for local interests, respecting the right of territory held by the state while also granting a usufruct territory devolved to local people. While any such policy determination would in fact be under the auspices of
the state, it represents a territorialization that is simultaneously internal and external to the state. If fishing rights were to be granted to local people for continued access to “their” sea, it would represent a territorialization that devolves rights, while simultaneously reinforcing the right of the state to exert control within its territorial bounds.

As noted above, such territorializations below the level of the nation-state usually occur within an indigenous context, attached to claims that are granted by treaty to colonized peoples. In every case that I am aware of, there is a pre-existing territory that is re-affirmed by the nation-state. Yet I am suggesting that while this is sufficient, it may not be necessary for the establishment of a territorial claim. Local people, when faced with loss of access will assert historic rights to the use resources that can appear in a territorial form, suggesting that the nation-state can choose to devolve control of spaces as sub-national territories in order to devolve their responsibilities within the wider territorial state. Thus far, it seems like such a territorial devolution is unlikely in the Bahamas, as the approach taken within the government seems to be one of state control and policing.

This then leads to another form of territorialization, that of the individual. Writing about the ways that nature has been reterritorialized in the Florida Everglades, Ogden (2011) writes extensively about the ways in which “outlaws” respond to the territorialization of conservation practice, and in fact reterritorialize natural resources through their practices and landscape claims. Yet these poachers were operating within a historic framework of hunting camps and individual territories that pre-existed the
conservation efforts that rendered these practices outside of the law. The territory of the individual is not easy to recognize within the juridical complex that inscribes state territories across the landscape, but this merely renders such territorial forms sub-altern, rather than unreal.

Fishers in the Bahamas have places that they have fished for long periods of time, with some sites having been passed from generation to generation with family cooperation in extractive efforts. Creating MPAs on top of these historical practices therefore also potentially calls into being the territorialization and practices of poachers, transforming them from weakly territorial hunters into outlaws who will then use territoriality in ways that oppose the territorial right of the nation-state. Illegal extractive activities, while they have an economic component, are also historically territorial in nature. Individuals who claim customary rights to extraction patterns within spaces that continue in spite of legislative efforts mark the spaces in question in new ways. While they cannot be said to control a territory in the same ways that the state does, the continued use of extraction territories is in fact a re-territorialization of resistance that is embodied in the individual. By continuing to extract from areas that are under the exclusive territorial control of the state, individual poachers are seeking to subvert the dominant form of territory by continuing to assert a traditional, but not legally encoded, territory. Further, poachers may also respect the territories of other poachers, making a patchwork of sub-altern territorial formations within a larger territorialized space (Ogden 2011). The fact that MPAs create the category of poachers out of people who continue to fish in their usual places mean that the process of state territorialization within
conservation practice in fact sets into motion other territorializations, albeit incomplete in terms of legal recognition.

The use of MPAs as a conservation strategy should then more correctly be called a tactic that can invoke the process of re-territorialization, rather than a simple assertion of territorial control. This process not only creates nodes of territorial control for the state, but also calls forth multiple counter-territorializations within the ocean. While these territorializations do not fall into the category of state territory, and in some cases may take the form as resistance to the state through unlawful practice, they are territorializations nonetheless. Over time, the state may transform its territorial control to try to either eliminate or incorporate such behaviors, but such adjustments may then call forth new territorializations that seek to further alter the control of these enclosed spaces. Rather than stability within a territorialized model, the discussion above about MPAs serves to illustrate that territorialization is in fact process, one that is marked by resistance and instability. While conservation has a legacy within the preservationist model (Neumann 1998; Robbins 2004) that seeks to control spaces under the auspices of the state, a robust political ecology would suggest that this is an unstable project.

It is not however sufficient to simply destabilize the logic of MPAs, as there is indeed a pronounced need to rethink the management, or lack thereof, of fishery resources (Safina 1995; Roberts et al. 2001; Worm et al. 2006), with evidence that the Bahamas is a potential biodiversity hotspot (Stoner, Hixon, and Dahlgren 1999). Because MPAs are the strategy that the Commonwealth of the Bahamas has chosen to address these issues, it is important to then think through the potentials of MPAs as
territorialization, and in specific how recognizing territorialization and its entanglements with conservation policy can call forth different policy assemblages.

_Territorialization from Below as Politics_

In essence, any argument for the rights of communities and individuals for continued access to and use of the seabed is a form of territorialization. While I drew from some general examples above, this is a process that is uneven and marked by different forms of state organization. Therefore different solutions to territorial claims must be addressed in specific contexts. In the case of the wider Caribbean, the enforcement capabilities of nation-states vary widely, from the large military complexes of the United States, the United Kingdom, and Cuba, to the relatively small forces of the Bahamas and the Dominican Republic. This means that nation-states will apply force differentially across boundaries that seek to manage the same resources. While an MPA is clearly a workable strategy in the context of the U.S. EEZ, fishers from other nation’s fleets can still extract the species protected by the MPA across the boundary line, where there may be less force applied. Further, while these boundary lines are the product of the historical process of establishing international boundaries in the sea, they do not account for the historical territories of fishing communities, who may make claims outside of the territorialized waters of the nation-state. These claims by communities can and do have implications in boundary zones, especially when fishers follow a historical fishing pattern that is not recognized by international law.
This process is further marked by the ability of a nation-state to enforce control of its EEZ, and in much of the Caribbean, there are constant accusations of poaching by foreign fleets. In addition, there are claims within nation-states for defense of local fisheries against other citizens (e. f. Stoffle 2001) outside of indigenous contexts. Whether the threat is perceived as external or internal, some fishers are asserting rights to resources in ways that take a spatial form and desired control over specific fishing areas, and these rights take the form of claims to non-state territories. Because these assertions of rights are often within a context of a historical fishery that is local in character, I am arguing that they are a territorialization from below. However, these territorializations are enmeshed in power relations that suggest they are a territory that falls outside of the concept as it relates to the nation-state, even as governments devolve power to local people. In sum, fishers may assert a territorial right that is made more complex by the fact that these rights are granted or withdrawn in the matrix of state power, yet have the potential to also shape these power relations through to imaginary of individual or collective non-state territories. As the ocean is transformed through political struggle over the purpose and acceptable use of conservation practice in the ocean, new identities can come into being that invoke territoriality in a space that is no longer discernable as state territory, nor an open access regime.

*The Ocean as Spatial Field*

Some of the complexities in teasing out the ways in which ocean conservation in general, and MPAs in specific inscribe spaces as territories are due to the historical nature
of the ocean. I am not referring directly to the non-human world as “nature,” which is part of the total matrix of relations and actors, and an important one at that. Instead, I want to posit that the ocean is not so easily inscribed, due to this complexity. In terms of resources, they can be stationary (such as mineral reserves), semi-stationary (e.g. reef communities), or migratory (including pelagic species). While stationary and semi-stationary resources may seem easy to enclose, the enforceability of such an enclosure must be called into question, because any boundary is virtual, rather than physical. One cannot effectively fence the sea, and enforceability of any territorial enclosure requires a large amount of manpower to ensure that the people you wish to exclude do not transgress the boundary. Further, if the goals of any territorialized enclosure include protection of migratory species, a further question is raised as to how to protect that resource when it is outside of the boundary line. Humans, as the predator that is seen to be driving environmental change, present an entire other level of complexity. Enclosing the oceans as part of a territorial resource management scheme is dependent on both the willingness of those to be excluded to abide by the rules, and the power of the state to use force against those who will not abide. The rights of innocent passage will also conflict with barriers to entry if the state is unable to monitor the activities of all vessels in its waters, if boat operators abuse this right to fish illegally.

Yet, the discussion above also brings forward multiple territorial claims to the ocean that arise at different scales within the bounds of Marine Protected Areas as enclosure. The MPA literature has long noted that the support of a proximate community is necessary for the success of conservation (National Research Council 2001).
assumes an environmentality that transforms the non-human world from resources to be exploited into an environment to be defended (Luke 1995; see also Agrawal 2005). Yet, the concept of “support” is broad, and appears to be varied in application. In the Bahamian MPA proposal, support was calibrated by the desire to protect aspects of the environment, and sometimes limited to the presence of a single individual who advocated an environmental ethic (Stoner, Hixon, and Dahlgren 1999). There was therefore some degree of surprise that the local communities in the Bahamas rejected the proposed MPAs outright (Dahlgren 2004). However, research conducted by myself and others has found that it is not the concept of an MPA that is rejected, but rather the structure of these particular MPAs that has been rejected (c.f. Stoffle et al. 2010). Globally, the success of conservation efforts has been mixed, and one variable that seems to be important is the ways in which enforceability is either held by the state, or devolved to local communities (Mora et al. 2009). While the analysis by Mora et al. suggests this is due to local conditions of the ability to enforce rule making, with wealthier countries able to enforce in a top down manner, and poorer countries needing to use a local enforcement model, it does not question the social processes that might be at play. For a local enforcement model to work, and achieve the “support” that is considered key to the success of an MPA, we will need to consider the ways in which power relations are transformed by the creation of an MPA.

When it is assumed that local people who support an MPA will then work as police, one must also address the problem of how social relations must change in order for this policing to come about. In the case of the Nariva Swamp, Sletto (2005) has
showed us an opening, through the complex intersection of knowledge/power in which narratives of the need for conservation are intertwined with local knowledge and power relations that create environmental subjects capable of deploying governmentality in a positive sense. The example provided by Sletto provides a different way to think about the work that MPAs, and indeed all spatialized conservation policies work in the context of uneven power relations. While many analyses of knowledge/power have focused on the construction of power relations through the control of knowledge as a negative relation. However, returning to the Deleuzian concept of *agencement*, we should recognize that knowledge power formations are always entangled, and as such practice is contingent depending on context. The case of the Nariva Swamp is possible precisely because of the ways that local knowledge is incorporated and used within the wider discourse of conservation. However in a different context, such incorporations may not be possible, or produce different results. This then begs the question, how then can a conservation space such as an MPA be constructed that is effective in terms of environmental results, and also power relations, in ways that lead to desirable outcomes that attend those relations as an important but contingent factor?

*Starting in the Middle*

MPAs, like all conservation areas, are territorialized objects. However, they are unlikely to succeed if this territorialization takes a form that leads to re-territorializations that derive from activities such as poaching by local people. It is therefore important to consider the contingent social relations at play in the context of their establishment.
Rather than considering “local support” as a variable, one needs to instead consider the social layout that can be construed as support. In the habits of conservation, there is a long history of top-down conservation that follows the model of the state excluding people from spaces. There is extensive literature that critiques these practices for the ways in which local people are excluded as users or traditional caretakers (Neumann 1998; Robbins 2004; Stoffle et al. 2003), sometimes with disastrous results (Chase 1987; Castilla 1993). There is also literature that documents the ways in which people continue to use resources of protected areas, territorializing them through outlaw hunting strategies that have different levels of effect on conservation goals (Ogden 2011; Mascia 2000). In my own research, I have seen that the debates about territorial strategies for conservation in the Bahamian ocean center not around whether conservation is a good idea, but rather the exclusions that take place (see also Stoffle et al. 2010). My research suggests that the problem is not one of the need for territorial strategies as a conservation tactic, but rather a struggle to be included in management decisions. This is a case of a politics from below becoming entangled in policy decisions from above, and encountered as resistance to the rule of law, rather than political action.

In the particular case of the MPAs that have been proposed for the Exumas in the central Bahamas, the logic of top-down conservation is failing, due to continued extraction activities within a new marine park, and strong resistance to the creation of no-take marine reserves that will affect the subsistence activities of local people. Yet simultaneously, the people are demanding conservation as they see the local ocean depleted. How then to make sense of this dualistic view of the MPAs that have been
proposed? If the livelihood strategies of local people are taken into account, along with their sense of permissible fishing activities within the local waters, it is possible to rethink designing conservation policy by starting in the middle. The ecology of the Exumas must include people because the fish are their livelihood, and as the fishers say, ‘without them, we are dead.’ Similarly, the fishery is in better shape than it could be because of the ways that the fishers treat the environment.

I would suggest that the need to consider the relationship of people to their environment, as a mode of ecological thinking that includes people should be the starting point of all conservation efforts. MPAs are however a special case, due to the problems of enforcing conservation enclosures in a space that cannot be physically fenced. In order for MPAs to ‘work’ they need a robust political ecology that accounts for their entanglements and power relationships. They should instead be rethought in terms of their politics, re-theorized to account for the fact that a politics from below that overwrites the space as a conservation area based on the way people will respect or enforce the territory of an MPA. If instead the logic of an MPA were rethought in ways counter to our usual modes, to the point that we can actually think about not an ecology but a specific ecology that posits socio-natural entanglements, we can perhaps move away from conservation discourses to thinking about how we can produce the ‘ecology we want to see.’ While MPAs are posited as a new strategy to help us out of a forthcoming ecological crisis in the oceans, they still fall into the dominant modes of thinking about the environment as resource for extraction and marketplace exchange that led to the problem in the first place.
The desire to conserve a ‘wild’ nature is argued to be the product of the romantic era of nature writing (Morton 2007) that evokes a world unspoiled by humans (Cronon 1995). Yet social science has alternatively offered us the concepts of traditional ecological knowledge as insight into the complexity of ecological relationships, and common property as a management tactic to argue that people are not necessarily the problem, and sometime even have a role in ecosystems with positive benefits (Castilla 1993). This is echoed within the ecological literature, producing humans as a part of the ecosystem that can contribute positively (Berkes 1999). While I have great fondness for the notion of traditional ecological knowledge, this discourse is problematic because it can lead to the idea that some people should be stewards, on behalf of the rest of the planet, an idea that reduces them to modern primitives (Butcher 2007) and victims of uneven development (Smith 1990). It is dangerous to suggest that the environmental subjects produced by the discourse of ‘steward’ are a unified mass. Yet there is a political potential for empowerment within these discourses that addresses resistance to conservation by producing conservators.

Because MPAs are a territorialized tactic, we need to consider the question of who controls that territory, and how it is to be achieved. If those in power expect compliance from people because the state demands it, MPAs can fail as counter-claims to the territory are raised, and the space of the MPA is transgressed. However, if the people who are in support of the MPA are given control that not only includes them in decisions, but also regulates access on their behalf, there is strong evidence that an MPA can succeed in producing a territorial object that includes both conservation of the non-human
world, and empowerment of local people. By starting in the middle of the social relations, including politics, the potentials for policing, extraction patterns, local economy, and relations to the environment, MPAs can be transformed into a socio-natural assemblage that is a complex of strategies that vary based on context, rather than simply being a territorial withdrawal to protect resources deployed as a panacea to the crisis of over-extraction. The context allows us to build solutions that explicitly looks at the power relationships at play, and develop MPAs from a standpoint that address the full ecology, rather than simply a mechanism for controlling behavior. While in some cases, a territory of exclusion could possibly accrue all the desired environmental outcomes; it is also likely to produce a re-territorialization of resistance that can have negative environmental and social outcomes. In these cases, it might be better to think about how we can make conservation work by striving for territories of inclusion that empower local people in tandem with the goals of resource management.
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Appendix A: Fishers Survey Instrument

Bahamian Marine Protected Area and Fishing Territory Study

The Ohio State University
Becky Mansfield and Fletcher Chmara-Huff, Co-PIs

PART I: Interview Questions

1. To begin with, I am interested in what kinds of fishing activities you are involved in:
   a. Do you:
      ______ Grub?
      ______ Fish with a hand line from the shore?
      ______ Fish with a hand line in a boat?
      ______ Use a Hawaiian Sling?
      ______ Use cast nets?
      ______ Use fish pots?

   Other?__________________________________________________________

2. How often do you fish?

3. What species do you usually fish for?

4. In general, do you usually fish for _____ yourself, _____ your family, _____ other members of the community, _____ fish to sell to others?

5. Are there some things that you only fish for at certain times of year? Why?

6. When you fish for your household are there specific places that you go, and where are they?

7. When you fish for other people in the community, do you fish in the same places? If no, where do you fish?

   (Why do you fish in different places?)

8. When you are fishing to sell the fish, do you fish in the same places? If no, what areas do you fish in?
9. How do you know where to fish? Did you learn from other people? Are there some places that the people of your settlement have always fished?

10. Can all people from the settlement fish wherever they want to? Or do individuals claim fishing sites?

11. Do you fish in areas that you feel no other fisherman can claim as a traditional fishing area?

12. Does the settlement have areas in the sea that all people in the settlement claim as a fishing area?

13. Are fishing territories shared with other settlements?

14. Do you make efforts to exclude others from fishing in your traditional fishing areas?

15. If people in the settlement claim specific fishing areas, can you tell me where they are?

16. What options are available to you to protect your fishing territory?

17. What about other settlements? Do other settlements make claims to areas that they can fish? Do they try to keep other people from fishing there?

18. What do you know about the proposed MPAs in the Exumas?

19. Where will the MPAs be?

20. Do the proposed MPAs overlap with areas that you consider to be within your (or your settlement’s) fishing territory?

21. Do you think you need conservation policy for the Bahamian Fishery? Are MPAs a good idea?

22. How would you set up a conservation policy?

23. What do you think of the idea of owning the sea? Can people have property and control of an area in the ocean?

22. Do you think Marine Protected Areas might push other fishers into areas that you consider to be a traditional fishing territory for you or members of your settlement?
PART II: Mapping

I asked you earlier about kinds of fish you wanted to catch when you went fishing. I have a series of maps of the area. I was wondering if you might be able to help me understand how and where people fish by drawing where you fish for different species. I have a number of different coloured pens. What I would like to do is talk with you about each species you mentioned earlier and have you draw on the map where you fish for each species in a different colour. You can be as specific as you wish. I am trying to map out where you and your settlement fish, and what you fish for in these places. Do you have any questions?
Appendix B: Policy Actors Survey Instrument

Bahamian Marine Protected Area and Fishing Territory Study

The Ohio State University
Becky Mansfield and Fletcher Chmara-Huff, Co-PIs

1. What do you think is the current state of the Bahamian fishery? What are the concerns?

2. Do you agree that the fishery is threatened by the doctrine of open access?

3. What do you think are the solutions to fishery management problems?

4. What is your understanding of how the ocean is managed by local people?

5. Do you think there are examples of sustainable fishery practices in the Bahamas? If yes, what are they?

6. What do you think is driving resistance to conservation policy, specifically MPAs?

7. What is your understanding of how local fishers figure into the plans for the creation of MPAs?

8. What do you think the role should be of fisherpeople in the creation of marine policy?

9. Do you think that there are places in the ocean that fishers might make a claim for control and stewardship? Should this claim be made? What would that mean for fishery policy?

10. How where the spatial parameters of the proposed MPAs determined? Who decided where they should be?

11. This process of designating MPAs has been going on for a decade now. What have you learned? What do you think is the way forward?
Appendix C: Research Report of Initial Findings related to the Study: Human Territoriality Conservation Conflicts: Territorial Tactics of Marine Reserves in the Bahamas
Research Report of Initial Findings related to the Study: Human Territoriality in Conservation Conflicts: Territorial Tactics of Marine Reserves in the Bahamas

Prepared by
Fletcher Chmara-Huff
The Ohio State University
September 12, 2010
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Initial Findings from Research in the Exumas and Nassau

This study builds on a long history of work started with the people of the Exumas under the direction of Dr. Richard Stoffle of the University of Arizona. This research was previously summarized and submitted to the Department of Marine Resources in the Bahamas, and was focused on people’s responses to several proposed MPAs. Additional copies of the trip reports produced by the University of Arizona may be obtained by contacting rstoffle@email.arizona.edu. While the present study draws on earlier research in published and unpublished forms, the aims and goals of the present study differ by looking specifically at why the ocean spaces in question matter.

Fletcher Chmara-Huff, under the research direction of Dr. Becky Mansfield, went to the Exuma mainland in 2009 to talk with fishers about how they think about territory in the oceans and how it relates to conservation efforts. A second part of the research design included meeting with scientists and people involved in the creation of policy and ask about their views on conservation and territory. These interviews were conducted in both Exuma and Nassau. This report summarizes some preliminary findings regarding that time in the field and the present trip in 2010.
Research Objectives: August 2009

Study Design
The study seeks to answer three questions: 1) Do local fishers make claims to de facto territories that are then overwritten by conservation areas, and if such territories exist, where are they, and how are they conceptualized? 2) What are the understandings of ocean space held by other actors in the MPA creation process, and do they contribute to conflict over conservation; if so, in what ways? 3) Do MPAs change both local spatial practices and territorial claims, differing from historical practices and claims, and if so how do they change?

The purpose of this study is to expand the understanding of why people in the Exuma Islands and Cays have responded in different ways to Marine Protected Areas (MPAs), also known as marine reserves, which are being planned near their settlements. A number of different conservation set asides, including Marine Parks and MPAs have either been proposed or created in the Exuma Cays, making it an ideal study site.

The communities chosen for the present research were picked because, starting in 2001, Mr. Chmara-Huff was a researcher with an NSF funded project designed to talk with people from settlements that have expressed positive, negative, and neutral sentiments towards Marine Protected Areas.

The present study takes as its starting ground the findings by Dr. Richard Stoffle that nearly all the population of these settlements supports conservation as a concept, and the idea of a nearby MPA. This finding however does not explain the actual resistance over time to the final implementation of any particular Marine Protected Area. The present study sets out to look at whether the actual spatial configuration of the proposed MPAs and National Parks in the Exumas is a factor in resistance to their implementation, using territorialization as the frame of investigation.

Research Summary
The following section summarizes the research agendas established for the fieldwork conducted from August 22-September 17, 2009, updated and revised in light of the 2010 fieldwork, as well as the current status of each research objective.

Over the course of the first field session, I conducted 45 interviews with local residents of Exuma. Of this total, 17 were formal interviews and 28 informal. Formal interviews were primarily conducted using the approved Bahamian MPA and Territory Study instrument, which are the focus of the following analysis and the centre of the study. The informal

27 Coupled Natural and Human Dynamics in Coral Reef Ecosystems: the Effects of Marine Reserve Network Design and Implementation of Fisheries, Biodiversity, and Humans, funded by the National Science Foundation and managed by the Center for Biodiversity and Conservation at the American Museum of Natural History under Dan Brumbaugh.
interviews asked questions along the same lines, but allowed the study participants to redirect into areas they thought relevant to the discussion of opposition to MPAs. By letting study partners redirect the interview, the study findings can move outside of the preconceptions loaded into a survey instrument. In addition to the residents of the Exumas, formal and informal interviews were conducted with representatives from the Bahamas National Trust (BNT), the Bahamian Department of Marine Resources (DMR), the Bahamas Reef Environmental Education Foundation (BREEF), and the Bahamas local office of The Nature Conservancy (TNC). One unexpected data source was the free giving of opinion by people in Nassau who asked me why I was visiting the Bahamas. These informal conversations provided another informal source of information that expands the discussion of conservation in the Exumas. All interviews were anonymous so people felt free to speak their mind.

The formal survey instrument has been designed to elicit detailed qualitative and spatial data about the extent of fishing activities and territories in the Exumas. By combining these focused interviews with data from informal interviews in 2009, and notes from research trips dating back to 2001, I can report some preliminary findings about how MPAs will alter the territorial configuration of the sea around the Exumas.

In addition to the interviews conducted in 2009, the archives of the social science component directed by Dr. Richard Stoffle of the Bahamas Biocomplexity Project\(^2^8\) were consulted in order to expand the data quantity and time scale.

In 2010, Mr. Chmara-Huff returned to the Exumas with an earlier draft of this report. It was used as a way to start conversations with individuals and groups and elicit further information. People were free to redirect and ask questions, and further were asked what changes were needed. Their comments are incorporated into the rest of the document.

I wish to make it perfectly clear at this point that I can neither speak for the people of the Bahamas nor the government of the Bahamas. I am merely reporting on what people have told me, and offering suggestions as to how policy implementation may improve. The people and the government will have to resolve the issues of fishery management in the Bahamas for themselves, and any advice I offer should be considered with good intentions, but not a mandate from outside.

Commentary based on my experience studying with these issues have been italicized within the text in order to make it clear when the text is a reflection of Bahamian voices, as opposed to the researcher’s insights.

\(\text{http://bbp.amnh.org/website/home.html}\)
Preliminary Findings:

Fisherpeople
This research was directed towards discovering the dimensions of territoriality that might be at play in the Exumas and how this might affect people’s attitudes about conservation policies, especially Marine Reserves and Parks. Regarding the first question, “Do local fishers make claims to de facto territories that are then overwritten by conservation areas, and if such territories exist, where are they, and how are they conceptualized”, preliminary analysis suggests the answer is mixed.

Using the definition of territoriality proposed by Sack (1986) as, “the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by asserting and delimiting control over a geographic area,” interviews with fishers suggest that there are some pre-existing territorial claims in the study area. There are also territorial claims that will only come into existence once conservation is proposed, suggesting new ways of looking at the spatial configuration of marine reserves.

A notable case of pre-existing territory would be the bonefishers of Great Exuma, who have specific exclusive areas in which they guide tourists, and for the most part respect each other’s boundary claims. Due to the introduction of foreign owned housing built adjacent to many of the bonefish flats on the south side of the mainland leading to tourists fishing without guides, the local bonefish guide industry has moved into the areas bonefish flats that will be included in the marine reserve proposed near Mosstown. The bonefish guides are all supportive of conservation efforts due to the fact that their industry is dependent on the environment. However, some of these fishermen voiced opposition to a ban on all activities within the proposed marine reserve, while others argued that bonefishing would always be a permissible activity because it is a “non-extractive” activity.

*Because of their commitment to the idea of sustainable recreational use of the local environment, many of the members of the bonefish guide community would seem to be valuable allies in the move to go forward with a marine reserve on the southern side.*

Spatial Conflicts
Another form of territoriality in the Exumas is best described as conflicts over spatial use. For instance, the proposed MPA extending from Mosstown to Jewfish Cay has at least four forms of conflict.

*Reef Fishery Conflict* The first conflict results from a number of near-shore shoals that are fished by local people on their way to and from fish sites that are further away. The south side is also a foul-weather fishery, exploited more heavily if there are high winds. Some fishers note that without the ability to exploit these closer resources they may not be able to sustain the same level of income as their extraction effort is driven further away, possibly pushing impacts elsewhere. They further claimed they would not be wiling to give up this fishery without strong enforcement, but that over time people would adjust.
Bonefish Promotion: The second form of conflict derives from the bonefishing activity mentioned above. The Ministry of Tourism has been active in promoting the bonefish industry in the Exumas, however the most significant local economic impacts from this form of tourism come from the bonefish flats within the boundaries of the proposed MPA. This appears to be a case of local fishers lobbying for more support from one government agency (Ministry of Tourism), while the Department of Marine Resources is trying to secure a conservation area to benefit the people of the Exumas in another way. This is a spatial conflict located within the government that asks for multiple and conflicting uses of the same space. In this case, it seems that more coordination is needed between seemingly unrelated Ministries to enhance the well being of all aspects of Bahamian economic development.

Navigation: The third source of spatial conflict relates to navigation right of way. The series of cays between the Exuma mainland and Jewfish Cay have a number of cuts when observed via satellite imagery. However, the people who regularly sail in the area report that only one of these cuts, the Green Turtle Cut, is navigable at all times and tidal cycles. It is therefore heavily trafficked by people travelling in both directions on the leeward side of the mainland. If this cut were to become part of a no-take MPA, people who live outside of the area could no longer access fishing areas beyond the cays without significant fuel costs to go around the MPA.

Relish: The final spatial conflict is what is best described as a subsistence fishery. There are a number of people in Mosstown and the nearby settlements who are dependent on Green Turtle Cut for a significant amount of their diet. Because it is a deeper cut with a relatively sheltered environment, people can access this area when inclement weather arises, and it provides a year round source of food. Many people who do not have powerboats can still row out to the cut from the Mosstown dock to drop a line and catch a few fish. A number of these people are more advanced in age, and loss of access to the marine resources of Green Turtle Cut will result in either a reduction of their diet, or the criminalization of their efforts to feed themselves. This conflict causes new territory to come into being as a closure of a part of the sea is seen as a taking of “our/my” fish.

These conflicting claims to the use of the sea are territories that come into existence with the presence of a threat to continued use. In each case, prior to the proposition of an MPA, the sea was held to be open access, for the use of all Bahamians. However, once the proposal of conservation is put on the table, the areas of spatial conflict start a process of territorialization, in which counter claims are made for ownership, control, or at the very least use rights for the spaces in question. So while a pre-existing de facto strongly defended territory cannot be said to exist, there is a territoriality at play here that can only appear once the right to use a space is diminished.

Identity Issues
While it is common to think of territory as something “out there” as a bounded space, current geographic scholarship also suggests that how people in a place identify
themselves is also a form of territorialization. There is a distinction that must be recognized in how people in different parts of the Bahamas recognize the identity of “fisherman.”

In the Exumas, people identify fishers as a person who has a small boat, who may or may not take a crew along, to go hunting for fish with a Hawaiian sling, line, or fish pot. In most cases men do this, but out in the Cays some women have also participated. These fishing methods are highly selective, allowing the people in question to take only what they think they need, either for their household, their community, their restaurant, or even for sale to Nassau. It is difficult work, and a person who is highly successful as a fisher is respected in the community. There is extensive line fishing in the Exumas, both hand and rod, practiced by people of both genders and across age groups. An example is illustrative. When a group of men were asked who among them were fishermen, one person responded that he was not. However, when asked if he ever fished with a line off the dock, he responded that, “Everybody does that.” This anecdote illustrates that the identity of fisherpeople in the Exumas has layers of complexity. Fishermen are people who work in boats using either Hawaiian slings or lines, but just the same, nearly everybody in Exuma catches fish.

When you talk to people in the Exumas about the additional effort they have to put into making sure their extraction meets their needs, they identify other kinds of fishers as drivers of the problem. There is a litany of equipment that some fishers in the Bahamas use (nets, long-lines, compressors) that allow greater extraction of fishery resources. Most fishers in the Exumas will claim that use of this equipment disqualifies you as a fisher, as it takes little training or understanding of the environment. Rather than “fishermen,” the people of Exuma call the people who use highly extractive gear “rapists” who are destroying their future.

This is a marked contrast to the people I spoke with who live in Nassau. For instance, there was a woman visiting Exuma who told me at the airport that she was looking forward to going home to a place where people fished. In her time on Exuma, she hadn’t eaten any fish and was under the assumption that not only is fish not sold in Exuma, but that people do not fish. This is different from the author’s experience in Exuma, because I have observed fishing activity first-hand; I have taken part in a wide range of interviews in which people described their fishing activities; I have seen fish for sale to take home in Stuart Manor, Steventon, and several places in Georgetown (including the fish fry); and I have been able to eat fish on a daily basis every place I have been to in the Exumas.

Yet in Nassau, there appears to be a wide perception that the people of Exuma do not fish. In a conversation with a group at Arawak Cay, I was told that people do not fish in Exuma repeatedly. When I explained my experiences of fishing in Exuma, I was told, “That isn’t fishing!” In Nassau, it seems that a number of people associated with the Bahamian fishing industry associate large boats and scaled-up extraction to be fishing proper, while the painstaking work of the fishers in Exuma is viewed as a hobby. This conversation was
repeated identically at Potter’s Cay, suggesting that in Nassau at the very least, and possibly Abaco and Spanish Wells, that “fishermen” are only those people involved in industrial scale fishery extraction.

This suggests that it would be appropriate to consider the identity of a “fisherman” a territorialized concept. In the Exumas, industrial fishery operations are frowned upon, suggesting that the fishermen there hold tight to their place-based identity, based on the kind of gear used. This is important because part of the national identity of a “true-true Bahamian” includes fishing activity. But there is debate as to who can claim that identity, in a division between Nassau and the Family Islands.

Management Suggestions
Given the strong sentiments over the years over the need for some form of conservation expressed by the people of Exuma (see Stoffle et al. 2008; Stoffle and Minnis 2008) it was decided to ask the question of how the fishers of Exuma would manage the oceans if they were put in charge. Some people were reluctant to answer the question, deferring that they would never in that situation, but once the conversation started, overall they offered a few positive suggestions.

Gear Restrictions  As noted above, the fishers of Exuma base part of their identity on the kind of gear that they use. The people of Exuma are widely opposed to the use of compressors for harvesting because they feel it allows for an over-harvest and the complete cleaning out of a shoal. Even a fisher I spoke with who used a compressor said that they were bad for the environment, and that he was only using them to compete against other fishers. Not surprisingly, many of the fishers of Exuma support a complete ban of compressors in fishing. When I asked if that was unrealistic given the large investment in equipment people have made, I was told that the fishery was not capable of sustaining this kind of extraction over time, and the people of Exuma insist a total ban is the only solution. Presently, an interview with two fishers who use compressors showed that they are now exploiting depths of up to 130 feet in violation of CHAPTER 244 FISHERIES RESOURCES (JURISDICTION AND CONSERVATION) of Bahamian law. Their reasoning was that they were not finding crawfish in shallower water, and therefore to preserve their income they needed to break the law. Similar thoughts were provided by many fishers in Exuma about haul nets and long-lines, as there have been a number of incidents over the years in which the by-catch of large fishing vessels resulting in large fish kills appearing on the shores of Exuma. The fishers of Exuma think that large scale fishing needs to be stopped to avoid killing the sea.

While a complete ban of this gear is probably unreasonable, the author suggests it might be worth considering that as protected areas are gazetted, one step might be to ban the use of certain gear in a protected area (and/or possibly a large buffer zone around the protected area). If for instance, compressors could not be used within 40 miles of a Park or an MPA, this would perhaps contribute to both the ecological health of the set-aside area, as well as ensure the fishers who don’t use these technologies have access to an...
area without over-predation. This suggestion was agreeable to the majority of people talked to in 2010.

**Spawning** Another suggestion that came up frequently was to put a ban on fishing grouper spawning aggregations *(and this was indeed proposed in the initial scientific review by Stoner et al.)*. It is felt *(perhaps incorrectly)* that one of the proposed MPAs in the area between Little Exuma and Long Island was designed specifically to protect such aggregations as well as a number of shoals that are now reported to be bleached. Many fishers point out that a national ban on fishing spawning aggregations might be more effective at securing the long-term future of the grouper and the snapper than an MPA designed to protect a single aggregation, or the present closed season. Fishers from both Exuma and Long Island report they fish in the area proposed for the MPA near Black Rocks for grouper and snapper, both of which have been known to spawn in the area. Many also presently maintain fish pots in the area of the Moriah Harbour Cay National Park, In the case of snapper, the fish are described as running up the Jumentos Cays before arriving between Exuma and Long Island to spawn. Several fishers in the Williamstown area have suggested that the snapper needs to be protected on the way to spawning, lest the spawning ground collapse due to pressure as the fish run north.

*A marine biologist working in the Exuma Cays asked this researcher whether fishers supported the present closed season and felt that it worked. I told him that some fishers in the Exumas feel that it is working, but that it may not be enough, as the fish spawn when the water is right, rather than on a certain date. There appear to be more and larger Nassau Grouper than there were 9 years ago, but this is anecdotal. I also talked with fishers in Nassau who insisted that spawning season is the “best time” to fish for grouper because it made them easier to haul. This again is related to the difference in identity and gear between fishing communities.*

**Underwater Structures** One discussion that is highly relevant to this researcher’s interests in ocean territoriality is the use of “crawfish condos.” Fishers in the Exumas understand these structures as a form of creating property in the oceans, a place that historically has no property rights. Because people enforce their rights to use a structure of their construction for exclusive harvest, allowing the existence of a condo at all gives a person nearly exclusive rights to fish there. The fishers of Exumas would prefer that in the wider oceans, condos be banned because they give a fisher a property right that is not available to all within the Bahamian EEZ. Further, they feel it is a tool that allows the crawfish to be extracted at a rate beyond sustainability. Only one fisher I encountered in Exuma expressed support for condos, and he also complained that he regularly found his structure deconstructed.

*Pending further scientific review, it is uncertain whether these structures provide habitat or are just a method to continue large and possibly unsustainable harvests. The author is aware that there has recently been violence related to these structures, and that DMR is aware of a need for legislation.*
**Periodic Closures** The year 2009 saw a bottoming out of lobster price globally, due to a number of factors, including the closure of the processing industry in Canada and a change in management of Southern Rock Lobster fisheries. The rumor at the time among the lobster fishermen of Exuma was that South Africa had used a multi-year closure, and fisherman floated the possibility that certain fisheries should be closed for at least a full year from time to time to allow stocks to recover. The people of Exuma suggest that the crawfish season be closed for a minimum of three years initially to allow for growth. While the people of Exuma generally seem to support this idea, the fishers of Nassau told me they oppose this measure due to investments in gear that allow them to seek lobster at greater depths. *(See the identity discussion above)*

*This researcher would suggest that other options might be just as effective on an experimental basis. When the season opens August 1, there is a high level of effort, whereas at the tail end of the season in February and March, there is less sustained effort as much of the catch has already been pulled. If the season were to simply start two months later it might give the crawfish more time to breed and grow, as well as condense the fishing to reflect the practice of only fishing heavily for six months. Perhaps this can be tried as a regulatory maneuver to enhance the management of this valuable marine resource.*

**Enforcement Issues** The fishers of Exuma seem to have a perception that fishing activities are often legislated and for the most part respected, but rarely enforced. They cite continued poaching in the ELSP, the inability of the single fisheries officer without a boat to police all landings, and the general lack of police and defense force presence when it comes to enforcing fisheries regulation. This problem has two tiers. The first tier is enforcement of regulations against Bahamian citizens. In general people have respect for the laws of their country, but some bad elements have started to creep in. The fishers of Exuma would like to see a level playing field, where all people follow the rules, and therefore have equal opportunities. If a person starts poaching or fishing out of season, and nothing happens, the people see this as an incentive to be just as competitive, leading to expanded illegal fishing activities. The fishers who follow the letter of the law see expanded and highly visible enforcement through multiple government agencies as one tool to ensure the long-term viability of the fishery.

The second tier of the problem derives from foreign visitors (including commercial poaching). While all visitors in this country legally should know the fishing regulations, a lack of enforcement both in the Bahamas and their home countries allows some people to behave as if there were no regulations. Over the course of many years I have talked to a number of tourists who see the Exumas as a place to come fish as much as they want, many claiming to either not know that their activities were unlawful, or else to boast that nobody would stop them. One cruiser claimed that they paid for their trip expenses by harvesting crawfish and exporting them to the US. Another told me that there were no fishing limits, and that no one had ever asked any questions of him.
I would suggest that Inter-Agency cooperation will need to become a priority. Is it possible that both the police and the defense force can agree to enforce the law of the sea, rather than splitting their jurisdictions? Do the police need training in enforcing fishery law, and how might that be facilitated? How might the Ministry of Tourism better explain the rules to visitors?

While this researcher recognizes that it is important for the economic well being of the Bahamas to treat tourists with respect, he would suggest it is also important that the respect go both ways for the long-term security of the nation’s resources. Fishers in the Exumas observe yachters and renters violating fishery regulations with few if any penalties, and this makes them angry. One suggestion is to increase inspections of foreign vessels in order to ensure that travelers are following the letter of the law. Please see further discussion below.

**Foreign Fishers**  One part of the problem with the bonefishery is that while there are many places that the bonefishers have historically used, development on the island’s south side of private residences has led to competition over bonefish flats. Local people report that these private houses are being rented out to people who want to bonefish without a guide, and as a result both drive the local people out of their traditional livelihood spaces and degrade the environment through unsustainable practices. This reduces the economic support of the island as rents are paid off-island, and bonefishers lose out on employment opportunities. Part of the discussion with the guides of the Exumas was whether foreigners should have to be licensed differently than local people. Fishers of consumption species repeatedly asked why foreign visitors are not required to buy a license for all fishing activity within Bahamian waters, rather than just sportfishing.

An example might be a bonefish guide who pays $40 for an annual license to have access to the fishery, but a tourist might pay $600 for the same access without a guide. This would still allow tourists the option to fish without a guide if they wished and provide a revenue stream for the government, but it would be more economical to hire a guide and use his fishing license at a day rate of $300, pouring money into the local economy. While the importance of maintaining the affordability of the Bahamas as a premier tourist destination should not be underestimated, a cost benefit analysis over the long-term might suggest that this strategy would both protect the environment through using experienced guides, and make sure that tourist dollars are spent in Exuma. Regarding the licensing of non-sport fish take, at the very least a nominal license would require all fishers in the Bahamas to read and accept the rules.

**Parks and MPAs**  At the present time, the fishers of Exuma feel like the (somewhat) sustainable nature of their fishing methods has resulted in a healthier ecosystem that has then been targeted for conservation. The long-term existence of the ELSP has both contributed to this success and become a source of contention. The debates about this park are well known, and do not need to be reiterated here (see Mascia 2004). Several fishers
have told me that they appreciate the beauty and biodiversity of the ESLP, and the spillover effects that allow fishers to harvest good catches outside the park.

However, with the establishment of the Moriah Harbour Cay National Park in 2002, there is a second park that affects access to marine resources. Although the local people involved in promoting the park insist the park was never intended as a no-take zone allowing line fishing, current regulations state, “Spearing or taking marine animals by any means is prohibited within national sea parks.” Because many fishers use pots within the boundaries of the park, and have done so for a long time, enforcement of this particular rule in the future is seen as a hardship. Add to this the potential creation of two Marine Protected Areas that will affect Exuma fishers, and they say that conservation efforts would severely limit the ability of people in the Exumas to continue to make their livelihood using marine resources. The perception of many fishers is that the government is trying to take away all the fish from the people. Some fishers see this as a power grab by foreigners (including British ex-patriots with Bahamian citizenship) to promote private reserves in the sea and prevent the people of Exuma from using the beaches in front of private property. Others are suspect of this particular researcher’s involvement, and have accused me of trying to single-handedly create MPAs.

Two questions have been raised that need to remain open. The first is the question of the growing Haitian population, and its impact on increased demand for fishery resource within the community. The second question is whether the effect of these reserves will be an increase in tourism, requiring more fishing activity to support them.

A total of four strict no-take zones in Exuma seem to this researcher to be a hardship that would result in widespread poaching by many people who are only trying to make a modest living. There is some commercial fishing in Exuma on a small scale, but the majority of fishing activity is related to subsistence activity, and many people will not willingly give this up. When the parks and MPAs are gazetted, could a strategy be used that enables subsistence but not commercial fishing in at least one of the locations? Could limits be put in place that allow only residents of the associated islands and cays be granted the permit to fish in a form of Community Based Management? While I understand that there is a lack of data on household consumption, which means there is no way to gauge whether subsistence fishing is a sustainable practice, I also suspect that failure to phase in rules gradually will result in widespread poaching by vulnerable populations that depend on the sea for daily meat. Assuming a population of 4000 people in Exuma, consuming a single fish a day means an approximate annual catch of 1,460,000 fish per year. Adding in the demands that tourism places on the islands may drive this number up to 2 million fish a year. Whether this would be a sustainable yield remains to be seen, but at the present time, the household economy of many residents of Exuma suggest that this measure would not only be acceptable, but may also be necessary.

**Lionfish** The lionfish is a growing concern in the Exumas, and there is much speculation about whether its introduction was deliberate. (This is not relevant to management, but it
enters many conversations.) Some fishers are reporting this researcher multiple lionfish sightings, but they do not report them using the sightings website, and seem unaware that all sightings need to be reported. A few fishers have discovered that it is a tasty fish, but many just avoid it for fear of the venomous spines, and have only seen public awareness messages to stay away. It has also changed where people get their fish. People no longer use the mangroves behind Mosstown as a close source of food, and now the fish in Green Turtle Cut or further down the cays rather than risk stepping on a lionfish in shallow water.

*It has been suggested by both fishers and local government that a sponsored lionfish tournament and fish grill with cash prizes might be one more way to promote lionfish awareness and management. Local restaurants could also be encouraged to put it on the menu using a similar tactic.*

**Policy Actors**

While the bulk of this researcher’s work in the Bahamas has been with the people of the Exumas, the study design of this particular project included talking with people associated with the government of the Bahamas and NGOs active in conservation in order to examine their perceptions of the problems with the spaces in question. In summer of 2009, I had meetings with representatives of the Bahamas National Trust (BNT), the Department of Marine Resources (DMR), The Nature Conservancy (TNC), the Bahamas Reef Environmental Education Foundation (BREEF), and a number of environmental scientists associated with either the College of the Bahamas, or US based research institutions. The reason for talking to policy actors about their perceptions of the kind of work that marine reserves do is related to the concept of sovereignty. Traditionally, territory is considered to be a legal concept describing the bounds of jurisdiction by a nation. After the passage of the UN Convention of the Law of the Sea (UNCLOS) the accepted maritime boundaries of nations became 12 territorial miles with exclusive jurisdiction, and 200 miles of Exclusive Economic Zones. This means that when the state enacts marine policy within territorial waters, it is enforcing a new territory in a zone that has customarily had open access for all citizens. So the point of talking with people involved at the policy level is to try to answer the question “What are the understandings of ocean space held by other actors in the MPA creation process, and do they contribute to conflict over conservation; if so, in what ways?”

In general, I am pleased to report that the policy actors in the Bahamas appear to be aware of many of the problems, and open to the idea of searching for a solution to fishery management that considers people as a part of the ecosystem and the need for local support. Within the archival data that I used, there are prominent scientists who have noted that mistakes were made in the past and treated the MPA creation process in the Bahamas as a learning process. Only one scientist took a dim view of the Bahamian people, suggesting that they would only respond to strong disciplining from above. However, there are a number of issues that concern the people who drive policy (both in the government and the NGOs) that they felt were important to mention:
1. There is a need for better data, such as who takes what and how much. There is no historical data available for setting quotas, and household consumption in the Family islands is unknown. What can the environment sustain? Can you trust fishers self-reporting of catch? The DMR has identified a need for better data on the household consumption requirements of fishery products.

2. Because the Caribbean has many nations close together, there is a need for negotiation of EEZs that are workable for all parties. Once these boundaries are agreed on by the respective nations, there is a need for strong enforcement.

3. Budgets: without resources, the respective (DMR, BNT) branches of government cannot manage parks or MPAs. While a large NGO like The Nature Conservancy can tap into sources of capital for awareness and promotion campaigns, without the financial support from Parliament, the government agencies charged with protecting resources are ineffective. If MPAs are created with no money for enforcement, the question remains how regulations can be enforced nonetheless. Community Based Management (CBM) is one option that has had some success in the global management of fishery resources. A recent study of global fishery management (Mora et al. 2009) showed that in counties without a large military complex CBM is usually more effective than no-take marine reserves. Rather than no-take, CBM creates policies of “local-take” in which subsistence needs can be met (including artisanal commercial fishing) but large-scale commercial operations are excluded from fishing in the designated area. A study based in Trinidad found that a community with marginally sustainable practices and local knowledge can become more sustainable once the responsibility is placed on local people, becoming a source of local pride and tourist promotion (Sletto 2005).

4. People in the government have identified a need for more interagency cooperation and coordination.

5. There was a recent subsidized expansion of the fishery in order to provide economic growth. There is some concern that the fishery may be over capitalized. It is important to maximize use of resources and sustain a high total allowable catch, but there is concern that with no baseline data, it is not possible to know what is sustainable.

6. The lionfish is currently a top priority.

7. Do people understand the reasoning about what the MPAs are supposed to do? Relations have broken down in the past, but it is time to move forward again.

8. Fisheries officers are aware that some communities are fishing and throwing out trash fish, and realize they need a management strategy to deal with by-catch.

9. Different parts of the Bahamian fishing industry have different problems that manifest in different geographic locations. A one-size-fits-all approach may not work, and regional differences need to be accounted for.

10. Regarding the Mosstown MPA, the DMR was interested in the kind of people dependent of the resources within and voiced recognition that people will continue to need some kind of access.

11. The DMR understands the importance of the bonefishery to the people of the Exumas. They are proposing that management include size limits and allowable catch limits;
they would like to eliminate its use as bait. The DMR was however surprised to hear that some people in Exuma eat bonefish.

12. “Generation sea”: DMR agrees that people make territorial claims due to long term sustained use, and this must be accounted for when setting any policy. The recognition of the problem of territorial claims meets the research goals of this study, and the author thinks that this single finding might be the best tool for moving forward with conservation efforts, through the acknowledgement of the ways that MPAs invoke territorial claims.

13. The people at the DMR stated that MPA zoning need not be strict no-take, and they can be zoned to exclude some activities while permitting others. While a no-take hypothetically allows benefits to be accrued locally through increased tourism, they recognize that livelihoods must continue without dependency on foreign income.

14. The DMR is concerned that the success of the MPA near Williamstown will require the participation and consent of fishers from Long Island.

15. Nassau Grouper – Nassau fishers have opposed regulation of this fishery, and they actively fish spawning aggregations. This conflicts with the regulation that the fishers of Exuma support (see above).

16. DMR has noted that if tourism increases because of marine reserves as destinations, that may drive up the catch needs and therefore cause depletion outside the reserves. An active management strategy with regular reassessment may be required to deal with displacement effects.

17. Sea Turtles- Will the ban be effective and reach the desired conservation goals? Turtle is no longer served in any restaurant in Exuma. There is still some household consumption, but it is no longer an active fishery.

18. One of the NGOs suggested that one source of opposition to conservation effort are the clergy of the Bahamas, and they wondered if there were resources to make the church into partners rather than adversaries. There is a large amount of literature dealing with just this problem, from articles and books suggesting that Christianity is the root of our present environmental crisis (c.f. White 1967) to calls for a Christian Environmental movement. A quick Google search using the keywords “Christian Environmentalism” turns up 9,840 websites that debate the issue. However, some of these websites (mostly on the anti-environmentalist side) mistake science for opinion, and their own opinions for facts. I feel there is a great opportunity out there to take these issues into a new arena.

**New Data Initiatives:**
While the purpose of this trip in 2010 is primarily to report my findings to the people of Exuma, there is other information that needs to be collected. I will be using key informants to try to identify: 1. Where fish are found (specifically the Nassau Grouper); 2. How much is caught where; 3. What could make the plan work, how what should the final gazetting look like; 4. What do the people of Exuma want to see happen in terms of new conservation initiatives; and, 5. Who fishes where in Exumas? These questions will be helpful in identifying territories that can be incorporated into any management plan.
1. Nassau Grouper is primarily fished on the north side of the island using pots or Hawaiian sling, and line fished in the deeper water north of the Moriah Harbour Park. However, the fishery of Exuma is opportunistic, and therefore take happens at any shoal frequented by a grouper. Snapper are primarily fished on the south side, although a fair number are still caught in the cut just east of Williamstown, and there is also active fishing for snapper off of Fowl Cay within the Moriah Harbour Park. Conchs are taken opportunistically, and the large scale activity to support the local restaurants is now done at the Sand Bores, 40 miles out. Crawfish is taken from wherever it can be found, although in September 2010, fishers are reporting small catches in Exuma, and the gas to catch ratio is inadequate.

2. Specific landing data is unavailable, but there is little commercial fishing. The largest crawfish processor in Exuma is not presently running his large freezer. Most of the fish for the fish fry is caught on the northside, with fishers harvesting grouper and snapper in the nearby waters using pots, or else with line in the waters up to 100 meters.

3. See complete discussion above

4. See complete discussion above.

5. This question is difficult to answer, because it is variable based on targeted species, home port situation, and weather. During inclement weather, most fishing happens on the south side, where there is protection from the wind. People with settlement docks on the north side usually fish on that side, but sometimes do portages in order to continue fishing in inclement weather. Some settlements with docks on the south fish exclusively on the south side (Mosstown, Hermitage) while others with cuts may fish predominantly to the south, but venture to the north when the weather is good (Williamstown). Fishers in Stuart Manor fish both up the cays and on the south side, but fishers in Barratarre have a northern dock and predominantly go up the cays to fish, in places like Darby Creek. Further analysis is forthcoming.

Conclusion

Overall, the research goals of this small study have been met, and the research questions of: “1) Do local fishers make claims to de facto territories that are then overwritten by conservation areas, and if such territories exist, where are they, and how are they conceptualized? 2) What are the understandings of ocean space held by other actors in the MPA creation process, and do they contribute to conflict over conservation; if so, in what ways? 3) Do MPAs change both local spatial practices and territorial claims, differing from historical practices and claims, and if so how do they change?” have been answered in a satisfactory fashion. I find that people do have territorial claims, but that it is an evolving process, best described with the active form of “territorialization.” The presence of potential MPAs and Marine Parks is a key factor in how these claims are formed, and therefore it may be possible to take these emergent territories as part of the toolkit in future management decisions. Fishers in the Exumas have definite ideas of how they think things should be managed in the Exuma Cays, informed by their historical identity as small-scale fishers. Pending further analysis, this report should provide a good basis for
preliminary work in gazetting the Marine Protected Areas in the Exumas, and also provides insights into changes that should perhaps be considered for the Moriah Harbour Cay National Park.