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What is Environmental Consciousness? A Thematic Cluster

The Sea Will Rise, Barbuda Will Survive: Environment and Time Consciousness

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The Sea Will Rise, Barbuda Will Survive: Environment and Time Consciousness

by Sophia Perdikaris and Katie Rose Hejtmanek

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Abstract

In this article, we examine the link between environmental consciousnesses and time consciousness. We argue that the way people think about time shapes their experience of climate change threats. We contrast western hegemonic concepts of time—the Gregorian Calendar, the Dooms Day Clock, linear time—with the way Barbudans of Antigua and Barbuda, an island nation in the Caribbean experience time—cyclical, through boom and bust cycles. We found that this boom and bust framework was indeed supported by climate change and weather experiences on the island—hurricanes, droughts, changes in the lagoons—as well as economic experiences—cargo boat delays bringing supplies, paycheck delays. By understanding local explanatory models of time, especially those that contrast to western climate science frameworks of time, better solution-driven work can be achieved in the face of climate change realities.

Keywords: consciousness, time, Antigua and Barbuda, cultural heritage

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About the Authors

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Dr. Katie Rose Hejtmanek is a cultural and psychological anthropologist with a research focus on cultural practices of self-cultivation and navigating existential and dooms-day fears. Her research has taken her to a mental institution for children, hotel ruins in Barbuda, CrossFit gyms, strength sports collectives and teams, and communities of functional and anti-aging medicine. Her work can be found in American Anthropologist, Ethos, and Culture, Medicine & Psychiatry, and in book form. She is an Associate Professor of Anthropology and Director of the Children and Youth Studies Program at Brooklyn College, in the City University of New York.

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The Sea Will Rise, Barbuda Will Survive: Environment and Time Consciousness

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Katie Rose Hejtmanek

Introduction

In 2014, the Barbuda Research Complex, a local NGO on the island of Barbuda of Antigua and Barbuda (Figure 1), commissioned Noel Hefele, a Brooklyn based artist and ecologist, as an artist-in-residence to create a mural project (Photo 1). During this particular artist-in-residence program, where an international artist comes and works with local kids, the youth of Barbuda decided to paint a mural on the side of the complex. After weeks of working together, deciding on the image, and painstakingly painting in the hot sun, the mural was complete: "The Sea Will Rise, Barbuda Will Survive." We were interested in local explanations about the phrase so we interviewed a number of the youth. One girl states, "It is a great idea, the structure of the mural. It is depicting climate change and showing individuals that climate change is a strong thing for Barbuda, which is a small island. But the little things we do will make our island survive. With the help of the team we can surely survive. We will rise instead of the sea rising above us." This young Barbudan woman was well versed in climate change rhetoric; she knows climate change is "strong" especially for a low-lying island. However, her understanding of the future of Barbuda is one not of doom and destruction but of "rising" through the small efforts initiated by the local research team (we come back to these but they include an aquaponics center). The young woman's response to climate change is in direct contrast to the vast majority of climate change science and even best-selling narratives (Klein 2014): unless we embark in radical changes to production, consumption, and pollution, the world as we know it will be completely transformed by climate change in a very short time. In fact, these scholars say, it already is. This article attempts to unpack how these two perspectives could be so different—one of "point of no return" and the other of "small things will allow us to survive." We will argue that it links back to a particular way of thinking about climate, the environment, and, most importantly, time. Therefore,

we argue that environmental consciousness inevitably involves a fundamental relationship to time; time consciousness affects environmental consciousness. We begin by discussing what we mean by time consciousness. We then situate the reader in Barbuda, focusing on specific elements of climate change knowledge and sustainability practices and time orientation. We link these back together by illustrating how understandings of time shape climate change orientations in Barbuda. We conclude with suggestions about how best to go about research, sustainability projects, and the work between those of us who fear doomsday and those who know they will survive.

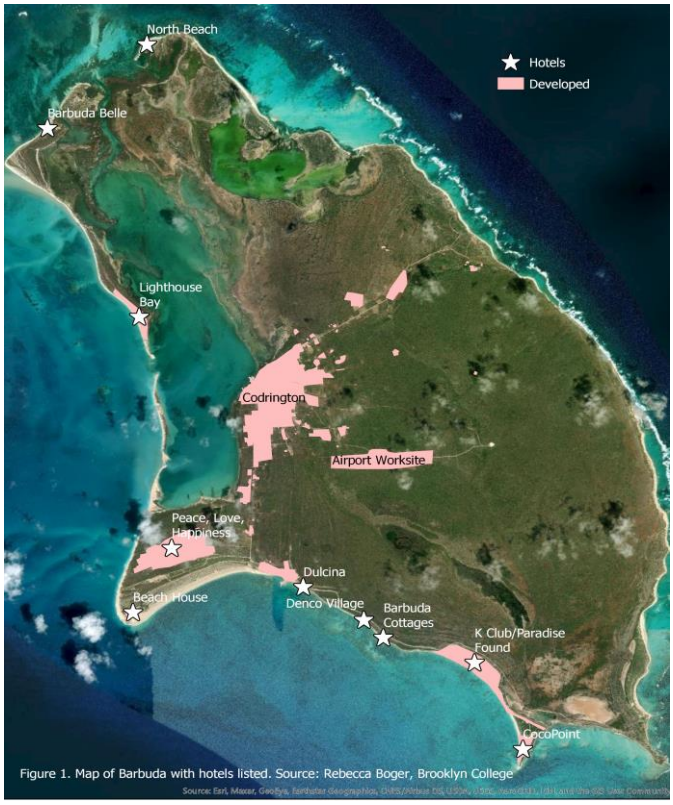

Figure 1. Map of Barbuda with hotels listed. Source: Rebecca Boger, Brooklyn College

Time

Time is one of the most important aspects of climate change discourse and the contemporary hegemonic way of thinking about the environment. In fact, the Doomsday Clock, the symbolic clock representing the countdown to global catastrophe originally set in 1947 to countdown nuclear war, was set in 2010 and 2012 to reflect pending climate change disaster. Following the 2009 United Nations Climate Change Conference in Denmark, the scientists responsible for the Doomsday Clock have set the device to count down global catastrophe due to a general lack of political action against nuclear weapons stockpiles, the potential for regional nuclear conflict, and global climate change. In a less dramatic position, climate change researchers, scholars, and activists also maintain that without shifts in carbon emissions and deforestation, climate change will get to a point of no return. In fact, armed with NASA data, *The Guardian* reported on May 17, 2014 that global warming is at a point of no return in West Antarctica (Rignot 2014). While we are not disagreeing with climate change or the evidence to support it, we are concerned with how time is referenced. We feel this needs to be investigated, unpacked, and understood as an aspect of environmental consciousness.

> The artifactual determination of time does not represent a coherent, consistent cultural system, however, but represents instead the sedimentation of generations of solutions to different temporal problems. The current ideas of millennia, centuries, decades, years, months, weeks, days, hours, minutes, seconds, and so on, are examples of such sedimented ideas—they are ideas useful in measuring durations of what happens in our world, but their relationship to our world is hardly straightforward. (Birth 2012, 2)

To understand time, humans have created objects to help them measure and organize durations. These objects include clocks and calendars, like the Doomsday Clock. "Humans have created objects based on ideas of time deliberately divorced from terrestrial experience" (Birth 2012, 2). Anthropologist Kevin Birth tells us that objects of time are distributed across cultures due to their coupling with processes of colonialism and globalization. For instance, people in Sweden do not use a different clock from those in Tokyo, just a different clock time. "The transcultural continuity in temporal concepts that calendars and clocks create is one of the distinctive features of modernity" (Birth 2012, 5). Part of living in the modern world is participating in the same global time clock with other places. The worldwide official use of the Gregorian calendar is also a feature of modernity, of the late Anthropocene. The Gregorian calendar is the worldwide dominant way to divide the year. As the dominant method of dividing the year, it absorbs other temporalities, including the Islamic calendar or Hindu calendar.

Birth argues that so much cognition is encoded in the Gregorian calendar and the clock that it is challenging to even consider alternative temporalities, especially without first converting them into clock and Gregorian representations. In this translation we often lose much information and it's because it's a challenge "to think about not only alternative temporalities, but temporalities in general" (Birth 2012, 25). And yet these objects and representations of time are not a natural way to organize the world. Rather, they are tools we have come to collectively use. And these tools shape the way we think and experience time. They construct a shared cognitive process of temporality. What results from this participation in modern, global time coding systems such as the Gregorian calendar and the clock, is a dominant and shared time consciousness.

Due to the hegemony of Gregorian calendars and the ways time is segmented, we often lose sight of the multiplicity of ways people and cultures around the world organize their lives in time (Birth 1999, 2012; Bloch 1977, 1979; Bourdieu 1963; Bourdillon 1978; Fabian 1991; Gell 1992; Howe 1981; Munn 1992; Pickering 2004; Rigby 1995; Smith 1982). For example, in his research with the Kabyle, Pierre Bourdieu (1963) found that the Kabyle were familiar with clocks and calendars, but found these devices lacked utility to their way of life. Rather than use the timepieces and the consciousness imposed on them

by the French, the Kabyle resisted the colonial endeavor to regulate their time or consciousness of their world according to the hegemonic artifacts. In her work with the Lakota, Kathleen Pickering (2004) argues that Lakota constructions of time are about Lakota society itself. In fact, "after 125 years, Lakota people have still not internalized the hegemonic rhetoric of state-imposed regimes of time and work . . . . Externally imposed time values are *simply flouted* when they contradict the internally defined, socially embedded requirements of material life" (Pickering 2004, 96, italics added). Kevin Birth, cited above regarding time more generally, investigates time in Trinidad. In his book *Any Time is Trinidad Time*, Birth (1999) argues that, "'natural' time, the time of organisms with which people interact, is not universally consistent. In effect cultural conceptions of time arise from demands of production or from natural rhythms, and, in practice, they are influenced by the memories of the individuals involved" (165). What these scholars reveal is that time is not singular, despite the hegemony of Western ideologies.

Our work in Barbuda has challenged us to think about time in relationship to culture—both hegemonic and local frameworks—and how they are linked to climate change narratives and apocalyptic-type futures (Bessire 2011; Hejtmanek 2020; Valentine 2012). We turn now to how time consciousness is shaped by various cultural conceptions of climate change and climate change "future": first we discuss the hegemonic framework of "time is running out" of climate change science and then turn to Barbudan cultural conceptions of time, specifically boom and bust, linked to natural rhythms and memories of individuals.

"We are running out of time!" "We are almost at a point of no return."

In 1980 George Lakoff and Mark Johnson argued that metaphors, particular linguistic and cognitive models, shape the way we live and think about our world. Specifically, they analyzed the way time is understood and experienced, especially for contemporary English speakers in the United States. They found that the metaphor for time in this context is money; time is money. Some of the metaphors that shape the way people interact with time in the United States include "saving time," "spending time," "investing time," "is something worth my while?," "not enough time to spare," and "running out of time." These metaphors illustrate how people come to think about and experience time in a particular way—time is a resource, a commodity, and it is limited and/or precious. While this is associated with the United States and English speakers more broadly, we can easily see how this framework of time is linked to capitalism.

Capitalism has shaped the way we think about time (Thompson 1967). In particular new habits of discipline created by industrial capitalism have shaped our "inward apprehension of time" (Thompson 1967, 57). He continues that the shift from "task

oriented time" to "clock time" is a product of capitalism that has fundamentally reshaped global orientations towards, and definitions of, time. Like our earlier discussions of objects of time, we add capitalism as a way to think about and experience the segmented ideas of time. It is difficult to think about time external to these metaphors; they indeed shape the way we live. Time is a resource and we have to use it.

The capitalist method of experiencing time as a resource is no longer isolated to the United States. Global capitalism, as with the Gregorian calendar, organizes time in hegemonic or dominant ways. Now we no longer have seconds, hours, days, months, years, decades, and centuries to deal with, we also have to worry that we may not have enough of them, that they are running out, and that we may not spend them wisely. These consciousnesses—the way to organize time and to metaphorically think about it—have shaped environmental consciousness, especially with regard to climate change. In fact, climate change itself cannot be divorced from capitalism (Klein 2014).

In her book, *This Changes Everything*, Naomi Klein (2014) links global capitalism to climate change concerns. In her text, Klein illustrates how the spread of capitalism through international trade policies directly and negatively impacts the environment and environmental protections. She convincingly argues that capitalism as it now stands and environmental protection are incompatible. What we wish to add to her argument is how capitalistic frameworks of time also shape the way climate change is understood by scientists and capitalists. In fact, it is telling that she finds that capitalists are more likely to believe that new technologies will arrive before the destruction of the world—in other words, it isn't a stretch to argue, much like Lakoff and Johnson, that the speed or time of climate change hastens the capitalist drive to make money off the dilemma. With the earth at stake, the countdown of saving it just in the nick of time is, indeed, worth a lot of money. Therefore, our argument here adds to how capitalism is shaping the narrative of climate change globally through the hegemonic conception of capitalist time. More specifically, this can be seen through the lens of a non-capitalist framework of time, what we call Boom and Bust Barbudan Time.

"The Sea Will Rise, Barbuda Will Survive"

As illustrated above, a common phrase in Barbuda is "the sea will rise, Barbuda will survive." How can this be the case? How is it that people in such a precarious position think that sea level rise will result in survival not only of people but also of a cultural way

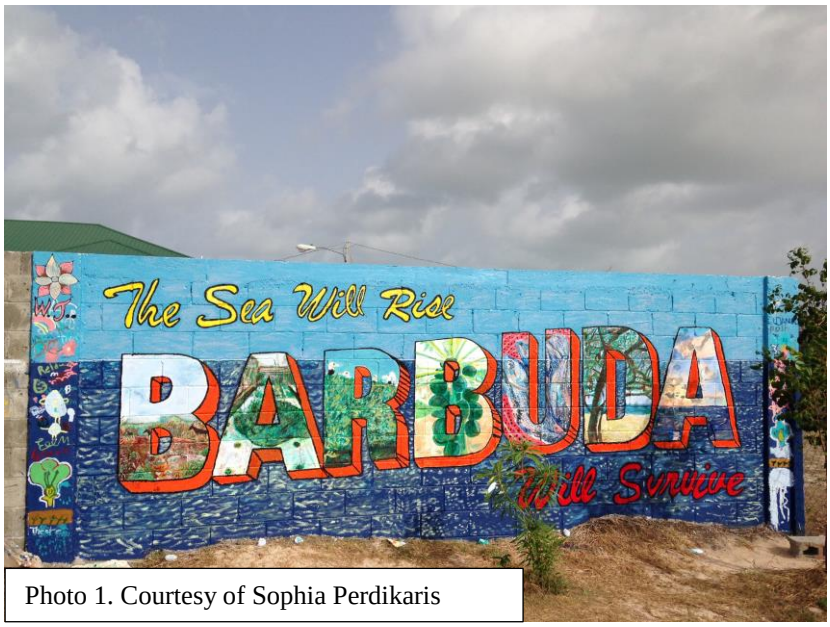

Photo 1. Courtesy of Sophia Perdikaris

of life as well? (Sharman and Russell 2014). These are some of the questions that challenge us as we, a group of scientists, artists, researchers, documentary film-makers, and students, have sought to not only research environmental issues but to provide sustainable initiatives that support local fishing, hunting, and resource preservation in what *we* understand as the pending dramatic social and ecological change of the island.

Barbuda

Barbuda is a small flat limestone island on the outer arch of the northern Lesser Antilles. It is the sister island to Antigua. The island is approximately 62 sq. miles (160 sq. meters) and its highest point is about 130 feet above sea level. About 90% of the island is less than 18 feet (3 meters) above sea level. The Atlantic side of the island has a limestone escarpment with lots of caves. The interior of the island is also limestone with numerous sinkholes and caves that contain fresh water throughout the year. The vegetation is dry limestone forest, with swamps and grassland. The coastline is almost completely surrounded by fringing and barrier reefs teeming with extensive marine resources, some of the richest in the region (Fischer et al. 1994). The mangroves at the Codrington lagoon are the home of one of the largest breeding colonies (after the Galapagos) of the Frigate birds (*Fregata magnificens*). The Frigate bird colony is a tourist attraction, an economic resource for the island, and vulnerable to direct and indirect human impacts.

Barbuda also lies directly in the pathway of significant annual cyclone and hurricane activity, and there has been a significant increase in the magnitude and frequency of North Atlantic tropical cyclones since 1995 (Goldenberg et al. 2001). Climate model projections suggest that future increases in wind and precipitation intensities are likely, presenting significant challenges for coastal ecosystems, industry, agriculture and human health in the Caribbean (Christensen et al. 2007). As most of Barbuda is low lying

and less than 3 meters above sea level, it is particularly vulnerable to rising sea levels which are already damaging marine resources and archaeological sites.

The modern village of Codrington is the only village on the island and there are 1800 residents, more than half of which under the age of 18. The first settlement of Barbuda was likely 4000 years BC and the island has been continuously occupied until the present. The first settlers were the Archaeic Age fisher-forager peoples called the Siboney, and they utilized the coastal marine resources extensively (Newsom and Wing 2004). Their shell middens spread for miles on Barbuda's southern shore and it is known archaeologically through the River site (Look and Brown 2007, Rousseau 2014, Watters 1992). The second wave of settlement was by the various Saladoid peoples who were migrating northwards out of the Orinoco river valley in Venezuela, and they introduced new plants and animals. They have been present in Barbuda since 150 BC (Perdikaris et al. 2013a; Murphy 1999; Newsom and Pearsall 2003). Two very important sites, Seaview and Indian Town Trail, among others, are very important archaeological locations marking this period. Barbuda became a British colony in 1632, and the Codrington family received the exclusive rights to the island in 1674. The island became a provisioning source for salt collection and livestock in the form of horses, cows, sheep, and chicken as well as vegetables like Irish potatoes and cassava (Gonzalez-Scollard 2008, Harris 1965). The island was under the British crown until 1984 when it gained its independence and saw the formation of its own governing body the Barbuda Council. While one country, Antigua and Barbuda, Barbuda has a representative in the parliament in Antigua and locally is governed separately from Antigua.

Ongoing anthropological and archaeological research has been conducted on Barbuda through the Human Ecodynamics Research Center (HERC) at the CUNY Graduate Center, Brooklyn College, and the Barbuda Research Complex (BRC), a local NGO, for a decade. As part of these research efforts, past and present water and food practices are being documented through ethnographic techniques and archaeological excavations (Perdikaris 2013a; 2013b). Archaeological evidence indicates that despite a semi-arid climate and thin, nutrient-poor soils on Barbuda, people practiced a complex and ecological agricultural strategy that enabled them to be resilient and live sustainably since their first arrival in the 1600s and into modern day (Berleant-Schiller 1983; Sluyter 2012; Potter 2015; Boger et al. 2014).

The complex agricultural strategies of the historical time period that were provisioning plantations in Antigua and British aristocracy, have shifted dramatically over the past few decades (Gonzalez-Scollard 2008). People are now dependent on imported foods (over 80% is brought in by boat) while most drinking water is shipped in through the sister island of Antigua (Sharman and Sharman 2014).

In addition to agricultural shifts, other aspects of Barbuda society have also shifted. As with the Lakota (Pickering 2004), Barbuda has not been completely influenced by capitalist time due to its location on the periphery of the world market. Rather than being developed to participate fully in world trade as other Caribbean islands have been, mostly through tourism, Barbuda remains largely under-developed. We argue this is mostly due to what we call "boom and bust" cycles of tourism development, government funding, and food scarcity.

Boom and Bust—Tourism and Beyond

Island Tourism

The solution has to come from the people of Barbuda themselves. They have to determine in which direction they wish their country to go.

Time and time again we hear of proposals for investments on Barbuda, which eventually come to naught. We know, all too well the sad history of sand mining and the squander of that resource.

The people of Barbuda deserve better than to be handed a pay cheque that they very well know is a handout, a stopgap, which has to come to an end.

The chairman promised five major projects to come on stream by year-end, if central government expedites the process. The proposals are for 15 bungalows, a clubhouse, bar & restaurant and the resuscitation of the Dulcina Bay Resort.

The history of proposed developments on the sister isle has been one mired in contention and controversy leading to nothingness. We can only hope that this time it will be different and that some one or two or all five of these projects really come to fruition.

—*Antigua Observer* (2013)

The Caribbean is known for its lavish resorts, massive cruise lines, and spring break getaways. A quick Google search reveals that much of the make-up of local economies is organized around tourism revenue. Antigua, of Antigua and Barbuda, has a dock for large cruise ships and boasts to numerous vessels and hundreds of people arriving at Heritage Quay, a downtown vendors village. Its shoreline filled with resorts from the luxury exclusive, to upper end, to average tourist guesthouses and rooms to rent, there is

something for each of the tourist budget categories. Bars, pubs, restaurants, cafes, rent-a-car companies, shops of all kind, abound in the big sister isle.

Barbuda on the other hand, has a different tourism development history. Based partly on the land management system governed by the Barbuda Land Act of 2007 (repealed in 2019), Barbudan land could not be sold to foreigners but only leased for a number of years. Barbudans, however, have the right to land and can claim it and then have it registered with the Barbuda Council. Over the years, many resorts have been constructed on the island (boom) only to be abandoned shortly (bust) thereafter. It is important to note that these resorts, which we describe in detail below, were all new developments at the time with multi-year leases (99 years was the norm), and each was eventually abandoned. All of them could be found along the southeast coast of the island that borders the Caribbean Sea. In 2017 there were only two luxury resorts still functioning on a long-term basis in Barbuda, Coco Point Lodge and Lighthouse Bay.[1]

The first wave of tourism ventures that went bust is represented by the K Club, a 200-acre cottage resort that once saw the likes of Princess Diana. K Club closed its doors about a decade ago. Today, like many other abandoned properties, it takes a beating during hurricane season and is overrun with weeds, feral donkeys, horses, pigs and other local wildlife. However, after being "bust" for a decade, it is now part of the latest island controversies. The initial owner decided to forgo the remainder of the 99-year lease in 2011. A new company, Paradise Found, expressed interest and provided a proposal for the Barbuda Council to review and the Barbuda people to vote on in early 2015. For a long time, the project was at a standstill with opposing parties arguing the validity of the Codrington Village meeting vote that gave the green light to proceed with the deal. While the courts were deciding, nature continued to claim its share and completely destroyed what buildings were on the property during hurricane Irma in 2017. While it is supposedly still moving forward, nothing of substance is taking place as we end 2020.

The Beach House, another short-lived resort on Barbuda's Palmetto Peninsula, is located at the most southwest point of the island. The Beach House resort included 21 rooms and 90 acres. It closed its doors in 2007 despite its desire to find new investors. In 2012 the company that owned the Beach House lease allowed the Barbuda Council to take goods and materials from the property and donate them to the Community Center and Hospital. This resulted in a well-publicized raiding venture where the property was stripped of all goods and materials down to bare walls (*Antigua Observer* 2012). In 2015 the remainder of the lease was given to Stanhope Shepherd International. Initial clean-up of the site has begun, but there are concerns about the financial solvency of these investors, and the production process is very slow.

Another venture, Dulcina a 10-acre, 15 cottage hotel had been abandoned for over 10 years. Stripped of anything valuable, including the loss of some structures to storm surges, Dulcina's abandoned structures have often been used by locals for playing bingo and hanging out. Dulcina is an excellent example of residents attempting to reclaim and reuse an anti-landscape prior to complete take over by nature (Nye and Elkind 2014). In September of 2015, the Barbuda Council signed over the lease of the Beach House to Maria Browne, wife of the Prime Minister of Antigua and Barbuda, Gaston Browne, and her father Purcell Bird. Ms. Browne's paternal grandmother was Barbudan. Ms. Browne is the first Barbudan to invest in a defunct resort. It remains to be seen how that will affect the longevity of the investment and its contribution to the local economy. The Dulcina structures were washed away during Irma.

Denco Village, one of the most recent attempts towards the development of a tourist economy, is located in the strip of beach between Barbuda's commercial peer and Dulcina. During the fall of 2014, this large waterfront area was bulldozed in preparation of what was supposed to be a vendors village to welcome guests from arriving cruise ships. Five years later, nature has reclaimed the land and there has been no building development as yet. Another venture qualifying as a bust, and it definitely seems that for the moment nature is winning.

In light of this data, we argue that boom and bust tourism shapes the way Barbudans imagine environmental change. A sequence of: an initial boom of industry, the construction of a resort, eventually followed by a bust of industry, most of that occurring within a generational memory. And this bust is a win for the Barbudan environment, the eventual reclaiming of Barbudan land, and the survival of natural Barbuda. If one waits long enough, irrespective of lease arguments, leaseholders, or the longevity of a venture, the resort will crumble and the vegetation will return. Barbuda belongs to Barbudans.

Beyond Tourism

What we have noticed in our work in Barbuda is how culturally embedded the experience of boom and bust is. So far we have illustrated the boom and bust cycle of the tourism industry. However, we believe this experience of boom and bust tourism does not stop with tourism alone. Much like the Lakota (Pickering 2004), this boom and bust framework can be seen in other aspects of social life. Boom and bust, or a framework of scarcity and abundance, is revealed in various aspects of everyday life and crisis experiences in Barbuda.

One only has to have been on Barbuda for a very short period of time to realize the cycle of scarcity and abundance, especially with regards to food. Most of the food on the island is brought in on the weekly cargo boat from Antigua. Therefore, goods and

supplies can be depleted for days before the next shipment arrives, and people must wait for the boat to bring supplies. Once the boat arrives, the stores are plentiful for days. Until, of course, the goods are picked through and just before the ferry returns. It becomes clear that waiting for supplies and indulging when they arrive is regular practice when it comes to food. Boom and then bust.

Other quotidian aspects of life also follow this pattern of scarcity and abundance, boom and bust. For example, the Barbuda Council, the local governing body, employs about 75% of Barbudans. Over the course of our research in Barbuda, we have seen the Barbuda Council regularly not pay people for work, often for weeks and months at a time. Then, all of a sudden, the money rolls in and everyone is paid for most, if not all, of the unpaid time. Therefore, rather than regular weekly or bimonthly pay checks, people go weeks or months without being paid and then they experience a big windfall. People complain about this lack of payment but in some ways it is expected, part of what the Barbuda Council does. Therefore, like with the cargo goods, scarcity and abundance are expectations, not the exception. Scarcity and abundance, boom and bust, are the routine, not consistent maintenance, constant availability, or even dried up resources. It is not as if Barbudans will never see the money owed to them by the Barbuda Council. Rather they will be paid, at some point, but they will have to wait it out, not knowing when it will come. The money will always come through, but just like the cargo boat, it might just not be when you like or on your time.

Based on this context of cargoed goods and random compensation schedules, for many people in Barbuda the idea of regular meals is rare. Rather people eat when they can buy food, because it is at the store or they have the money in their pocket. Otherwise, we have found that many people will go without eating and then indulge in a big meal. Rather than a routine of regular meals, like with many other aspects of daily life, eating is based on scarcity and abundance, boom and bust. Government water available through reverse osmosis is extremely saline, but it's the only water that can be piped into households. Even that is only available for two-hour intervals for a total of 8 hours a day. Therefore even water—to drink or to clean with—has a boom and bust lifecycle.

In addition to everyday life practices such as eating, drinking, or work, the boom and bust model shapes crisis experiences too. In the summer of 2015, Barbuda experienced a severe drought. Perdikaris worried about local livestock, crops, and vegetation. During a discussion with a local farmer about the devastation, Perdikaris was informed that people don't water plants or care for wildlife because once these plants die "something [else] will come up" or other livestock will take the place of those who succumb to drought. In fact, one person told her that after drought often come hurricanes. In fact, as we were initially writing this in late August 2015, a hurricane was scheduled to hit

Barbuda in a matter of days. In other words, scarcity and abundance, boom and bust are the cultural patterns of dealing with everyday life experiences, such as food procurement, compensation, and crises that include severe drought and hurricanes.

Scarcity and abundance, boom and bust are the chronological cultural framework for how life works; it is a Barbudan way of keeping time. Barbudans will be paid, the cargo boat will deliver, the ferry will come, children will go back to school, people will eat, and crops will come back. Barbudans must only wait. The model of scarcity and abundance, boom and bust removes the onus and responsibility from the individual and his or her ambition or work ethic. With time all desires are filled; bellies, wallets, water-tanks, and notebooks are filled. With time, the rains will come. With time, the plants grow back. With time, the environment will reclaim the land. Much of life, from everyday meals to cyclical severe weather, follows this pattern. It is not surprising that the cycle of waiting out scarcity for a returned abundance is a worldview on the island of Barbuda, a worldview that shapes everyday perspectives on life and climate change.

Cultural frameworks of how the world works are not easily debated (Randup 2002). This is where we find a stranglehold, a standoff with concerns about the "reality" of climate change. Barbudans do not deny climate change, and they understand they are experiencing it. But their relationship to the future is less one of immediate action as it is of waiting for things to come around, as they always have, as they always do.

Ultimately local conceptions, cultural frameworks, cultural patterns, shape the way people experience and engage with climate change. In Barbuda, this local framework, these local patterns, hinge on deep-seated experiences of boom and bust time, scarcity and abundance, of waiting for things to happen or change. Barbudan environmental consciousness is intertwined with the Barbudan perception of time.

Sustainability and Time/Environmental Consciousness

Just like western clocks are oriented towards a predictable future, a future that we have a responsibility to cultivate and shape, Barbuda does not cultivate, they simply wait and allow the environment, the powerful environment, to do what it has always done, reclaim the development of humans. As Barbuda is at the threshold of western economic development, one of the fears towards a western approach is that the significant landscape changes, along with the influx of goods, ideas, and money, will intensify the pendulum of boom and bust and further highlight the divide between have and have nots. Capitalism and sustainability are incompatible (Klein 2014). The priorities of individualism and short-term gain under capitalism do not allow for, and actively reject, the long-term, collective strategies that sustainability requires. One does not need to reject economic development altogether, but the economic development of Barbuda, and

ultimately the rest of the world, requires a more sustainable, socially minded, and environmentally oriented development (Klein 2014). The years post Irma have devastated sustainability efforts in Barbuda. Acres of prime hunting land, wetlands, and archaeological sites were destroyed for a large international airport that will never be (Perdikaris 2018; Boger and Perdikaris 2019; Boger et al. 2019). A new player in the development field under the name of Peace Love and Happiness has bulldozed ancient sand dunes in the area of Palmetto Point, increasing hurricane vulnerability and the status of the Codrington lagoon as a RAMSAR site.

Stable economic development and quality of life should not have to come at the erosion of culture, place and environment. Drivers of economic change or development must broaden the social domain in which they function. Instead of looking at an isolated business activity/venture on the island, the economic activity/venture/opportunity must be considered in the backdrop of the social-ecological system within which it ought to function. Business must respect and incorporate Barbudan definitions and concepts of time and the environment into their development equation. Doing so will allow businesses to not only drive economic growth in a more integrated manner but will allow Barbudans to enjoy a new and stable landscape—one that is sustainable, economically and ecologically. And as Walker (quoted in Folke et al. 2002) suggests, this new stable landscape may in turn help Barbudans develop a new relationship with time, maintaining deep-rooted values, identity, and societal acceptance while equalizing the pendulum of boom and bust—and reaching a more balanced approach to incorporate both environmental and economic sustainability. Time of course will be the key component in looking at how that might affect local perceptions and responses to the effects of climate change.

In terms of working toward a more sustainable future, we can illuminate this reality, that boom and bust time is a key aspect of how Barbudans engage in climate change worry, develop the small island, and prepare for a future. Thus, while we agree with David Griggs' (Griggs et al. 2013) list of Sustainable Development Goals—of Thriving lives and livelihoods, Sustainable food security, Sustainable water security, Universal clean energy, Healthy and productive ecosystems and Governance for sustainable societies—it is important to recognize that ecosystems and social systems that use and depend on them are linked, and it is the dynamics between them that determine how this relationship manifests itself (Constanza et al. 2007, Steffen et al. 2006).

Conclusions

Environmental consciousnesses differ and a significant way they do is through time consciousness. Realizing this can not only help us keep in mind the diversity of

populations and peoples of the world, and the diverse responses to sea level threats, but it also provides us with what medical anthropologists call local explanatory models. Barbudans aren't waiting around for environmental scientists to give them climate change time frames; they have their own explanatory models already. If we are going to work toward solutions, we need to operate with respect to these models and the people who hold them.

In a Barbuda village meeting on Sunday, August 16, 2015, one of the residents in support of proposed developments argued that it does not matter how long someone leases Barbudan land. The land will always be Barbudan, regardless of what the Prime Minister Gaston Browne wants to believe. Land, time, sustainability are terms that are vulnerable, and many can define them to suit particular agendas and needs. Barbuda stands as a small island developing nation, with economic insecurity, environmental challenges, and a changing identity. Can time heal all? Can a sustainable future be accomplished? Is development a long-term viable solution or a short-term Band-Aid? Time will show. But above all, people's voices must not be lost. Sustainability should not be an either/or western economic development or living from the land. Boom and bust is a dangerous extreme that can have dire effects if followed in this paradigm. Could we instead strive for a middle ground? Can informed economic development partner with cultural ideologies, practices, and priorities? As anthropologists, we study societies and report on change; as anthropologists interested in sustainable development, we can inform but we cannot enforce. Time yet again becomes a key player that will show how "The Sea will Rise and Barbuda will Survive."

Notes

[1] Coco Point, built in 1961, is still active. It caters to extremely elite tourists with a price range from 1200.00-1950.00 US$ a night for an average room; it's the only long-lived venture on the island. Light House Bay at Pelican Bay has been active for a few years but recently changed ownership. North Beach is in a remote location accessible only by boat and so is the newest addition to the resort scene, Barbuda Belle, which opened in March 2015 and was also part of a controversy due to its proximity to the Frigate Bird colony. It remains to be seen what will happen with these resorts.

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