

PLASTICS IN “PARADISE?” A LOOK AT PLASTIC CONSUMPTION AND WASTE  
MANAGEMENT IN SAN PEDRO, BELIZE

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## ABSTRACT

### PLASTICS IN “PARADISE?” A LOOK AT PLASTIC CONSUMPTION AND WASTE MANAGEMENT IN SAN PEDRO, BELIZE

by Megan Shaw

This is a project in partnership with Belize Tourism Industry Association (BTIA) in order to study plastic consumption and waste management in San Pedro, Belize. For this research project I employed a set of anthropological methods in order to uncover meaningful information that could be used by the BTIA in their future programs and initiatives. The issues of consumption and waste management on the island of San Pedro are topics of increasing importance and visibility. People in this tourism hub work each day to balance consumption habits, growing a tourism industry, and mitigating environmental degradation via waste management systems. In this project, I wanted to better understand the historical background of this community and the perceptions and practices people held concerning consumption and waste. The research methods I used were semi-structured interviews, participant observation, and a collaborative ethnography project to study forms of consumption and waste management that are in place, how different populations viewed the issue of garbage, and the various barriers people were facing when attempting to make individual consumption behavior changes. My findings include a wealth of information about power, economy, resources and education. I also found a significant amount of information concerning varying waste management systems in place today and people's hopes for the future. These findings relate back to historical colonialism and modern day capitalism. My findings are being presented back

to the BTIA in the form of a final report in an effort to continue to create positive change in issues of consumption and waste management for the San Pedro community as a whole.

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## CHAPTER ONE

### INTRODUCTION

“Discover the clear blue water, white sand, delightfully warm weather, the world’s second largest barrier reef, and the laid-back island life of Ambergris Caye” (GrandBaymen.com 2019). This idealized, picturesque view of the Ambergris Caye is how many tourists view the island prior to, during, and after their brief vacations. When I came here in 2018 to study plastic consumption and waste management, a local interlocutor Julie suggested I call my project “Plastics in Paradise.” It is through these lenses of paradise and the tourism industry that I begin to frame the issues of plastic consumption and waste management in San Pedro, Belize. Tourists come to San Pedro and view it as their own version of paradise. However, for the island’s inhabitants, tourist imaginaries of paradise do not reflect their daily lives. The accumulation of waste—especially plastics—increasingly undermines the maintenance of the island’s ecology and economy that provide the illusion of paradise. A tourist may not see it, spending their time at hotels with groomed beaches and in the well-maintained center of town. Yet, if they venture even slightly off the beaten path, they are sure to catch a glimpse of this problem. San Pedro has a failing waste management system and growth in the consumption of plastic products since the 1980s when tourism began to grow, and more global products were imported. Garbage is piling up all over the island and threatening the primary source of income for its residents, tourism. Tourism is the main revenue stream for most local residents—nearly one in eight (Travel Tourism Digest 2017)—and if someone does not directly work in tourism, their job is likely still tied to it

in some way. The waste is not only an eyesore, but also a threat to the health of the public, and marine and terrestrial ecosystems in the surrounding area.

Because public awareness of waste management issues has grown in San Pedro in recent years (e.g., Belizean government's Single-use Plastic and Styrofoam Ban, and an Island Wide Cleanup November 2017), it is an ideal time to research both the local impacts of waste problems and local responses and adaptations, and to partner with local organizations to craft informed solutions. I developed this project in partnership with a local nongovernmental organization called the Belize Tourism Industry Association (BTIA), with whom I collaborated to develop my research plan and goals. In this study, I focused on understanding plastic consumption on an individual, business, and community level, and the waste management systems developed to accommodate these consumption behaviors.

Types of consumption have shifted as tourism has increased and more products have been brought to the island. Between 2014 and 2015, gross imports of consumer goods rose by 35.23 million Belize dollars (17.61 million USD) (Statistical Institute of Belize 2016). With an increased volume of plastic being consumed, it is also crucial to look at how these products are being disposed of and how this may be affecting the community. By examining key concepts such as power, economy, and consumption, we can gain a better understanding of the current issues San Pedro is facing. These concepts, along with the anthropology of environment and waste, lay the groundwork for the research I conducted in San Pedro in the summer of 2018.

Research for this study included a variety of methods in order to gain an inclusive understanding of the issue at hand. I conducted twenty-five interviews with individuals and business owners on the island. I also created a collaborative ethnography project, where nine individuals journaled their experiences with daily plastic consumption. These methods, coupled with participant observation, helped me gain different insights and perspectives on the issue of waste management and consumption on the island. Through my work, and the efforts of others already taking action, I hope that we can continue to foster positive change for the San Pedro community.

### **Statement of Problem**

The core objective of my study was to document local practices of consumption and waste management to inform current programs and to inform innovative solutions for the future. Plastic, and the negative impacts it has on the environment, has become a popular news topic in the last few decades (Jambeck et al. 2015). Plastic products are being consumed and disposed of at unprecedented rates and now make up an estimated 10 percent of all waste worldwide (Jambeck et al. 2015). In 2010, it was estimated that 2.5 million tons of waste were produced only by people living in coastal areas around the world (Jambeck et al. 2015) and, in the same year, San Pedro produced approximately 5,400 metric tons of household waste (CCCCC 2017). This number is expected to increase by 30-40 percent over the next five years (CCCCC 2017). That could mean that in the next two years the island will be producing over 7,500 metric tons of waste per year; that is over sixteen million pounds.

When certain types of waste accumulate, they can pollute bodies of water and the water table, create ideal breeding grounds for mosquitos, release toxic fumes and liquids, and be ingested by animals. This can lead to health problems not only for people but also the surrounding ecosystems. As consumption continues to increase on the island, the issue of waste management is becoming more serious. Few formal studies have been conducted on waste in San Pedro, and of those, many are not available to the public. These studies have focused on the types of waste being generated across the entire country. The data from these studies are all integrated into project proposals. The Caribbean Community Climate Change Centre uses household waste data to show that garbage being thrown away could be used to generate clean energy (CCCCC 2017). One data set shows that within Belize the two major waste items are organics and plastics (CCCCC 2017). The systems to deal with these types of waste, commercial composting and recycling, are not widely available in Belize. Although these nationally focused data sets are useful, they lack site-specific information that would be helpful when addressing waste issues within the San Pedro community. To more effectively address the plastic consumption and waste issues within San Pedro, I crafted a set of research questions and employed an anthropological approach focusing on historical background, perceptions of waste, and everyday behaviors. To examine these factors, I collected both qualitative and quantitative data on what plastics people use every day, how they perceive garbage and waste, and how historical background and culture interact with an individual's behavior and understanding.

San Pedro is an ideal location for this research for a number of reasons. The island is a relatively small area--the town is only three streets wide. It also hosts most of the tourists who come to Belize (Belize Travel and Tourism Digest 2017). In 2017, 41.6 percent of all tourists who came to Belize stayed in San Pedro (Belize Travel and Tourism Digest 2017). Since this is a central location for most tourists, I was able to observe on a broad scale the impact that tourism has on plastic consumption and waste management. San Pedro is a bustling tourist hub and a small geographic area with a relatively small local population of just 17,429 individuals in 2016 (Statistical Institute of Belize 2016). This small population size allowed me to collect data on a larger proportion of the island's residents.

In the following section, I outline the significance of this project as well as my deliverables. Following this, I present my research questions and provide context on consumption and waste management within the San Pedro community. I then introduce the populations of the island with attention to the unstable categories of identity they possess. I conclude this chapter with a roadmap of this project report.

### **Project Significance and Deliverables**

For this project, I partnered with the Belize Tourism Industry Association (BTIA). The BTIA is a national nongovernmental organization that works to promote sustainable tourism through its close involvement within the national government. They also advocate for local communities on issues of waste, safety, education, and more. While working with the BTIA, I was tasked with producing two deliverables (Appendix A). First was assisting in the development of garbage focused curriculum components for the

San Pedro Junior College (SPJC). Second was a final report of my research findings that will help inform local efforts concerning plastic consumption and waste management.

Creating curriculum for the SPJC was an ongoing project organized by the BTIA. The ultimate goal of this project was to have the SPJC own and operate an ongoing large-garbage removal program for the island. There was also a hope that the program could be profitable at some point in the future. This project was identified by the BTIA as an important issue within the San Pedro community. The main driver was that Belize is home to diverse flora and fauna and the world's second largest barrier reef. The tourism industry depends on these natural resources to entice people from all over the world to visit and stimulate the economy through their spending. Since tourism is the main income driver for the island, many people see the need to preserve the environment and ensure that tourists will continue coming to Belize.

My collaboration with the BTIA provided me with the connections, context, and resources I needed to undertake my research focusing on plastic consumption and waste management in San Pedro (Appendix B). Plastic consumption is a massive issue for the island of San Pedro and the significance of this research is that it can contribute to waste management initiatives by uncovering meaningful insights. These insights could create a greater understanding of this issue at a local level, which could in turn help stimulate community action. My initial thought was this community action would come in the form of cultivating sustainable tourism practices. During my time in San Pedro, I found numerous individuals and organizations already actively working on the issue of garbage and ineffective waste management. But there is a lack of coordination between many of

the participants and organizations, and a lack of effective information dissemination as well.

I also found that, although tourism plays a large role within the community, the issue of waste is really a community one. Tourists only consume what is made available to them. However, tourists do heavily influence the amount and types of items that are being imported. Once they have consumed the product and disposed of it, it is then the local and national governments responsibility to ensure that it has an effective waste management system in place to take care of the rest. Many island residents feel that tourism generated income should be reinvested into the communities that host tourists. Yet there seems to be a disconnect between income generated from tourism tax and local infrastructure needs.

Community advocates (e.g., individuals collecting plastic bottles on large scales for recycle and repurpose) and participation of community members (e.g., people bringing their bottles to be disposed of) are two ways San Pedro residents are coping with the lack of funding for infrastructure. This involvement often leads to increased awareness and education on the issues as well. Laurie Medina (2010) studied nongovernmental organizations (NGOs) and their influence over the national government of Belize. She looks at how an NGO's stake in protecting the environment in Belize has shaped and influenced the government in the past and continues to do so in the present. Medina also examines how locals are left out of these discussions and decisions. This was the case with a Mayan population living in a basin in southern Belize that was an important jaguar habitat. This community was forced to leave their homes because their

land was declared a protected jaguar sanctuary. Environmental sustainability projects must be done in collaboration with local people if they are meant to be sustainable for the country in its entirety.

Medina's (2010) case study emphasizes the need for community involvement. Additionally, it demonstrates how local and national government, tourism, the environment, organizations, and local people are all interconnected. When key stakeholders are left out of decisions, as we learned about with the Maya population in Medina's (2010) work, there can be negative repercussions. The intricacies at play need to be analyzed with a holistic mindset to uncover meaningful information that can help bring together all the different facets involved in the issue of plastic consumption and waste management in San Pedro, Belize.

I hope my findings help bring further awareness and insight to the San Pedro community, and to the larger body of anthropological knowledge. The issues of consumption and inadequate waste management have created a conversation that is not going away. The more that is known about these topics, the better equipped governments, organizations, and individuals will be at finding creative solutions for the future.

### **Research Questions: Consumption and the Production of Waste in San Pedro**

It is intriguing to imagine how plastic consumption and waste management have changed over the last few decades as tourism has increased in this area. In the last several years, new products have been imported to San Pedro and incorporated into daily use, such as Styrofoam clamshells or take-home food containers. In only the last four years, a garbage transfer station was built to house waste before it is barged to the landfill on

Belize's mainland. These changes, although they may seem small, have had significant impacts on consumption and waste management on the island. The production and consumption of plastic products are the root of waste management issues. Production of plastic products ties Belize to the global capitalistic economy. Within Belize, the national government exercises significant control over the types of products that are imported and place hefty taxes on imported consumer goods. Individual consumers exercise some agency when it comes to consumption of these products; however, they are only able to purchase what is made available to them. A shift in consumer practices to more minimalist behaviors will help to decrease the amount of waste that is generated. If behaviors stay the same and consumption continues to increase, landfills will reach their capacity and entirely new waste management systems will need to be created. Action needs to be taken by individuals, businesses, local Town Council, and the national government in order to cope with this issue. With the above considerations in mind, I conducted this study with an applied anthropological approach to investigate these issues within the San Pedro community.

*1) How has the tourism industry influenced plastic consumption and waste management in the last several decades?*

Applied anthropological studies encompass not only the current culture within a community but also their historical background. Viewing changes over a span of time gives context to present-day issues. For this reason, I wanted to better understand how Belize's past affects present-day communities. Factors such as gaining independence from Britain and the shift from logging to tourism as a form of revenue are likely to have

played large roles in current Belizean culture, government, and economy. The influx of foreigners likely accelerated the development of landscapes and the growth of imported consumer goods. These factors are likely to have shaped consumption and the waste management systems that are in effect today.

*2) How do different populations in San Pedro perceive and practice plastic consumption and waste management?*

As well as current and historical culture anthropology also focuses on how an individual or group understands the world around them. These worldviews help individuals make sense of society and the environment in which they live. On a smaller scale, I wanted to understand how people perceive plastic and waste in an everyday setting. How an individual understands a plastic product (e.g., a single-use water bottle) will affect their behavior surrounding it. One individual may view plastic water bottles as inexpensive and convenient while another may experience feelings of guilt when they use a plastic water bottle. These differing opinions and thoughts are shaped by a person's culture and worldview.

*3) What action are individuals, organizations, and the community taking to mitigate overconsumption and poor waste management practices?*

The final key to my anthropological approach is to examine actual behavior. Using the context of historical background and perception of plastic and waste management, it is easier to understand an individual's actual behavior. These three questions focusing on historical context, perception, and behavior, guide my research and data collection. Using

an anthropological approach also ensured that I gained a holistic view of the community and the issues of consumption and waste management.

### **Unpacking Identities in the Research Context: Unstable Categories**

San Pedro has a unique population consisting of individuals with varying identities that are not neatly categorically bound. The categories most often referred to in San Pedro are expatriate, local, and tourist. All of these categories are contested and unstable. This is a very common dynamic in postcolonial contexts because power dynamics and shifting economies of colonial territories greatly shape local inhabitants and their identities (Yelvington 1995). It is also possible to see concepts of identity and deservingness (Faas 2014) played out within postcolonial politics. This disparity can be seen in San Pedro by the different levels of access to resources such as education, healthcare, job opportunity, earning capacity, and social standing that different groups possess.

For the purpose of this study, I use the term “expatriate” to refer to US and Canadian born individuals living in San Pedro. This is the term used most widely within the community. However, it is important to understand that this term has many colonial ties and exerts a certain epistemic violence. Although most individuals do not use the term expatriate with any malice or intent to marginalize, it still reflects a level of privilege and influence that creates a divide on the island. It is also important to note that the term expatriate is not one that would ever be applied to a Belizean living in the US or Canada. A term that might be applied in this alternate context is most likely “immigrant.” This further shows the colonial ties surrounding the term expatriate.

The next terms that need to be unpacked are “local” and “Belizean.” Many people come from mainland Belize, Guatemala, Honduras, and Mexico to San Pedro because they believe there are many employment opportunities on the island. Some identities that people from mainland Belize associate with are: Garifuna, Mayan, Mopan, Yucatec, and Q’eqchi. While some individuals from other countries continue to self-identify with their birthplace, others begin to identify as Belizean after several years of residing in the country; this is true for expatriates as well. If a person considers themselves Belizean, they also consider themselves as a local. Yet, there are some people within San Pedro who consider themselves local and do not identify as Belizean. These are likely people who have lived in the country for several years but still have strong ties to birthplace (e.g., many expatriates fall into this category). Medina (1998) explores the term ‘native’ within Belize and finds that it is a very contested term. She examines placemaking and how territory, history, and culture affect a person’s identity (Medina 1998).

This placemaking also can be viewed through the context of space and how people organize themselves within it (Gupta and Ferguson 1992, 523). As people move across variously constructed borders, they reorganize themselves and bring with them different cultures and understandings (Gupta and Ferguson 1992, 523). Gupta and Ferguson (1992, 522) state that space is not divided by lines that are given in nature, and that within any given space there are issues of conflict, contact, and contradiction. A simpler way to understand this is that the lines on a map do not actually physically separate different people and cultures, “space itself becomes a kind of neutral grid on

which cultural difference, historical memory, and societal organization are inscribed” (Gupta and Ferguson 1992, 523).

As people move across this space, they give new meaning to the space they inhabit and in turn, are affected by others around them. This fusion of cultures can create thriving subcultures (e.g., Belizean youth who seek university-level education in Europe or the US), but it can also perpetuate racism and imbalanced social structures (e.g., Female Honduran sex workers in San Pedro). Gupta and Ferguson (1992) emphasize that these subcultures do not take up distinct space and are part of the community as a whole. The identity of an individual and the space they navigate can give them new opportunities (e.g., to education or jobs), or it can harm them (e.g., get a job easily because of their gender and nationality). How people relate to space and identity plays a large role in how culture forms and shifts. Because of this, the term local is also unstable and contested.

The last population is tourists. This may be the most stable category out of the three, but it can still be challenged. Many people who return to Belize annually or own property in the county may contest the verbiage of 'tourist' being applied to them. However, in the eyes of local Belizeans or resident expatriates, they may fall into 'tourist' or some other category since they spend limited time within the country. During a recent visit to the island, a friend noted to me that if I keep coming back so often I was going to a "local". I contested this myself, stating that I felt the term did not apply but that I also did not recognize myself as a "tourist". He reconsidered and decided that I am "a regular". It is clear that these three categories - expatriate, local, and tourist - are

contested and unstable. In the following chapter, I work to provide more clarity on how these different populations speak to issues of colonialism, power, and economy.

The goal in defining these populations is so I could better understand and communicate how different groups might view the issue of plastic consumption and waste management. Consumption is the act of using resources. These resources can be made from many different materials and sourced from all over the world. My main focus concerning consumption is on plastic because of its durability. The majority of the plastic products made in the last several decades are still around today and with little access to recycling, countries like Belize struggle to cope with the consumption rates of this material. Waste management systems become key in this conversation of plastic consumption. Taking a historical look at consumption and waste management in San Pedro is crucial in working to understand this issue.

### **Report Structure**

In the next sections, I explore a set of anthropological concepts I engaged for this study, my research methods, and study findings. First, I examine past literature relating to the topic of consumption and waste management in Belize and other tourist destinations. Next, I look at the anthropology of tourism and how power and economy are affected by colonial ties and capitalism. I work to understand different facets of consumption in an individual, community, and global context. Then I delve into environmental anthropology and the relationships between people and nature. Lastly, I examine the anthropology of waste and how factors such as value, temporality, morality, health, risk, and waste management affect the garbage we produce.

Following the above inquiries, I outline the methods I used to collect my data while in the field. These methods were varied in order to provide a more holistic approach. Some of my methods were required to be adapted once I was in the field and I had assessed my populations in a cultural context. I used semi-structured interviews, collaborative ethnography, and participant observation to collect both qualitative and quantitative data. Next, I provide my findings and results based off of the data I collected. I found different themes began to arise across my various methods. Interview participants discussed formal vs. informal waste management systems, education, initiatives and barriers to curbing plastic consumption, misinformation and lack of information dissemination, and the national plastic ban. My collaborative ethnography participants discussed feelings of guilt and regret, personal initiatives, reuse and repurpose of products, and litter. During participant observation, I was able to attend community events and uncover interesting insights about the formal waste management system and the areas of town that are cleaner. In the findings chapters, I discuss the meaning and significance of my findings. Finally, I speculate on where these findings may be applied and potential next steps to take.

## **CHAPTER TWO**

### **THE ANTHROPOLOGY OF WASTE IN A TOURIST TOWN**

#### **Review of Relevant Literature**

I arrived in San Pedro on a warm, clear, June evening in 2018. This was not my first time to the island, so I had my bearings; and quickly checked into my apartment and went to get dinner at the closest restaurant. I have heard this restaurant referred to in the past as the “Applebee’s” of the island. The restaurant has an extensive menu that appeals to American consumers and is comparably priced. Upon finishing my meal, I asked for a to-go container to bring home my leftovers. I was given a clamshell and bag that were both marked as biodegradable. This situation speaks to the convenience and comfort of tourist needs but also to the changes occurring within tourism-related businesses on the island. I set out to understand the historical background of plastic consumption and waste management but also how people perceive trash and what behaviors they exhibit concerning it. In the previous chapter, I outlined the varying identities within San Pedro, locals, expatriates, and tourists.

Through my brief encounter with biodegradable plastics on the first night of my fieldwork, I was able to reflect on my perception of trash and also my own behaviors. I took note that this specific business made the transition away from Styrofoam and plastic clamshells of their own volition. I also noted that they provided me with a bag to carry my food when it was not objectively necessary. As I walked home, I wondered how many businesses were making these changes, whether it mattered that my clamshell was

biodegradable if it still ended up in the landfill, and what changes I could make moving forward in my fieldwork to mitigate my consumption of plastic products.

This review of the literature connects issues of plastic consumption and waste management to the San Pedro community through an anthropological lens. I examine the field of the anthropology of tourism, as well as the growth of the tourism industry. I look at issues of power and economy in both historical and present-day contexts. Next, I examine consumption and work to understand how and why people consume in certain ways. When these consumed products live out their life cycle, they become waste. I look at environmental anthropology and the anthropology of waste to better assess how these consumption practices are affecting the environment and build up of garbage. Lastly, I look at how waste can be viewed through the lens of value and temporality, morality, health and risk, and the differing waste management systems that communities have in place. This engagement with the literature sets the stage for assessing the issue of plastic consumption and waste management on the Ambergris Caye in Belize.

### **Anthropology Tourism**

In the last few decades, anthropologists have developed the study of tourism into a core domain of applied anthropology (Chambers 2010; Medina 2010; Pi-Sunyer and Thomas 2015; Wallace 2005). According to Frederic Darbellay and Mathis Stock (2012), when anthropologists became actively involved in tourism in the 1970s, they faced two main issues. First was the difficulty in defining tourism. There was debate over whether tourism was a system or a relationship, which made it hard for anthropologists to

critically examine how the social world interacted and dealt with tourism (Darbellay and Stock 2012). The second issue was the fact that tourism was already an interdisciplinary field, which at the time was not something most anthropologists were accustomed to (Darbellay and Stock 2012). By defining tourism as a set of relations dependent on people, embracing interdisciplinary work, and applying anthropological theory and practice together to create forms of praxis, the formal study of tourism has come into its own in anthropology (Wallace 2005; Darbellay and Stock 2012). It is through this lens that I can look critically at how tourism is significantly changing plastic consumption and waste management practices in places like San Pedro, Belize.

#### *Mass Tourism to Post-Fordist Tourism*

Mass tourism is when large amounts of people visit the same places in high frequency. As global transportation and accommodations (e.g., commercial airlines, cruise ships, hotels, etc.) became more readily available to middle class individuals more people began traveling. The era of mass tourism began the explosion of the industry around the 1970s, making tourism available to a wider range of people, and spreading its reach into many new areas of the world (Wallace 2005). Wallace (2005) describes the beginning of the mass tourism movement as unwanted globalization in remote places of the world that had been fairly untouched by the industry previously. Mass tourism is a product of both globalization and capitalism (Wallace 2005). It has led to massive development around the world in countries that wanted a stake in tourism and in places has imposed their ways into places where they were not necessarily welcome. This

development often happens so quickly that countries are unable to cope with, issues including, the greater volumes of waste that are being created.

Oriol Pi-Sunyer and Brooke Thomas (2015) looked at how fast-paced tourism development in Mexico shaped the daily lives of those living and working within the surrounding communities. Although tourism expansion can provide jobs to locals, it can also lead to many negative impacts in a community. Pi-Sunyer and Thomas (2015) saw how tourism expansion altered local diets and resulted in lifelong health issues such as high cholesterol and blood pressure. I would speculate that these altered diets also likely came with new plastic packaging, as food was imported from other areas of the world. In the past, mass tourism has been the cause of a variety of negative effects for local communities, even when it was thought to be providing more resources and access. Although there can be many negative aspects of this globalization, such as increased plastic consumption, overdevelopment of natural spaces, and increased wealth disparities, there can also be benefits such as increased job availability and greater access to modern technologies.

As mass tourism became popular, people began to look for different types of travel where they could avoid what many considered the same cookie-cutter experience as every other tourist, to which the mass tourism movement catered. Post-Fordist travel makes tourists feel as if their vacation is no longer rolled off an assembly line. As the industry continues to globalize, outside investors are reaching deeper into ostensibly “remote” and “untouched” parts of the world to provide tourists with new experiences

and opportunities within travel (Wallace 2005). The generic tourist experience that seemed to have rolled off a conveyor belt is no longer appealing to most travelers. These post- Fordist travelers, who are looking for the “off the beaten track” experience, now have those experiences available to them (Wallace 2005). This has led to many new types of tourism such as alternative, adventure, ecotourism, the latter of which promotes vacations that are nature-based and generally create less harm to the environment.

Amelia Moore (2015) discusses how eco-friendly trends have potential, but appear to be fads that are likely to fade in popularity. She writes about a shift in thinking concerning the environment and Caribbean tourism. She states that as we enter this new, more environmentally-conscious era, we are witnessing a gradual appreciation of the need to shift our practices and everyday habits surrounding tourism (Moore 2015). Becoming a more conscious industry and working to enlighten visitors to the precarious health of our planet are crucial. Moore (2015) also states that sustainable tourism initiatives are effective marketing tactics in today’s economy. As countries that rely on tourism revenue work to find new ways of bringing tourists in, while attempting to stand out as prime travel destinations, some are adopting more environmentally conscious practices (Moore 2015). This shift in industry practice could help to ensure its sustainability for the future. It also is increasing the revenue to the industry and potentially the locals who work within it. But Moore’s (2015) question remains: how can we be sure this trend will endure and have impact?

## **Power and Economy**

The discussion of tourism sets the stage for examining power and economy in Belize because it is one of the main revenue streams for the country. Belize is an independent nation as of 1981 and is also a current British Commonwealth and former colony of Great Britain. This history of colonialism is crucial for discussing power and economy in the present day. Colonialism at its root is a forceful conquest of lands, bodies, knowledge, and representation. Now independent, postcolonial nations still endure the lingering effects of their colonial days. Joseph Feldman (2011) examines these lingering effects in post-colonial Trinidad and Tobago. He finds issues of race, class, and gender with roots in the colonial system are still present within the contemporary communities. Feldman (2011) also examines the ways in which individual identity has transformed as an effect of marginalization and foreign influence from tourists.

Anna Wex's (2007) study reveals contemporary colonial ties to the waste management system in Guatemala. Her fieldwork examines an expatriate stronghold in creating, operating, and maintaining the waste management system that ultimately failed because they were unable to relate to the local community. As shown through these examples, Western influence is often rooted in past and present colonial behaviors and affects many different facets of a culture, community, and individual relations and experiences. Many postcolonial nations have attempted to stave off colonial capitalism in favor of socialist policies and politics (Chambers 2005). Since European colonial expansion and capitalism grew in tandem in Latin America and the Caribbean, it is easy to identify many countries whose natural resources have been exploited en masse as part of these twin processes, with little in the way of domestic wealth generation (Meniketti

2015). In the mid-17<sup>th</sup> century, the British began logging operations in Belize and official records noted that there were no indigenous populations in the area (Medina 1998). The outright denial of indigenous populations speaks not only to unequal wealth distribution, but also to issues of power and race that are present in colonial settings. As countries began to gain their independence, some developed more socialist characteristics to guide their countries forward into the future. This shift in ideals has shaped economic and political structures that operate within these countries today.

Belize experienced this shift and reconfigured its ties to the British Crown in the 1980s and is now a British Commonwealth. Their economy also shifted away from the lumber industry and towards smaller crop production and tourism (e.g., hotels, restaurants, and transportation) (Belize Statistical Institute Annual Report 2016). In 2014, forestry and logging brought in just over five million Belize dollars (2.5 million USD) in profit for the country, while hotels and restaurants brought in 109 million dollars (Belize Statistical Institute Annual Report 2016). Since this is such a large industry, many people are employed by it, roughly one in every eight individuals (Travel Tourism Digest 2017). Although large amounts of wealth are coming to Belize via the tourism industry, many Belizeans still struggle financially. The minimum wage across the country ranges from three to five Belizean dollars per hour (Belize Chamber of Commerce and Industry 2017). Wealth disparities can be viewed within the country as seen by the differing lifestyles of expatriates and working-class Belizeans. There are also clear wealth disparities between tourists and Belizeans working within the service industry. This divide can be viewed as “the west and others”, or as the “haves and have nots”. When

discussing tourism, the concept of “the other” is prevalent in almost all the literature on the topic “The other” in tourism is typically the person with less power (Bunten 2008). Since tourism is a profit-driven industry, tourists are usually the ones who hold the power. Through their consumption practices, tourists exert a type of social power over their host community (Baptista 2012). This power structure creates significant inequality within the industry and the world. Tourists express their wealth through their consumer practices while in San Pedro. Many people while on vacation have the mentality that they deserve to relax and spend money on items or activities that they typically would not splurge on at home. This consumer behavior can be viewed as flaunting wealth in some situations. This further exacerbates the divide between tourists and the San Pedro community as seen through economics, power, class, and social structure.

Wealth disparity can be seen in development and tourism-related business as well. When big business dominates the tourist industry in an area they likely reap most of the financial benefits. As stated earlier, the minimum wage within the country is very low, roughly three Belizean dollars per hour, while a Belikin beer (locally brewed) is six Belizean dollars. Many tourism-related businesses are owned or operated by expatriates or foreigners. One of my research participants noted that much of the tourism revenue never actually enters the country because of online booking systems for accommodation or transportation that go directly to bank accounts in other countries. This divide that places wealth and power into the hands of a few while marginalizing most of the population is rooted in capitalism and colonialism (Bunten 2008). This business structure is being challenged in some areas where community-based tourism projects are being

created. These programs are intended to involve locals in tourism-related business (e.g., running hotels, restaurants, welcoming tourists into their homes) and keep revenue within the community for specified development projects (Giampiccoli and Kalis 2012; Baptista 2012).

But not all community-based projects are successful in realizing their objectives. Joao Baptista (2012) examines a community-based tourism program and the ways in which it fell short of its progressive ideals. Since this community-based project was created by an outside NGO, local culture, needs, and opinions were not incorporated into the program development in an efficient way (Baptista 2012). Revenue from this community-based tourism project was used to create a school for the local children (Baptista 2012). Building a school was a development project that tourists had pushed on the local community because they believed that children needed institutionalized education (Baptista 2012). However, the parents of these children did not want to send their kids to school because they needed their help working the fields (Baptista 2012). Tourists saw the need for early childhood education because that is what they are accustomed too in their respective home countries. Their cultures place high importance in children's education and because of this, they used their consumer power to implement what they felt was needed. Wanting education for children is not a bad cause to fight for, but it lacked cultural understanding of why these children were not in school to begin with. The community project that locals wanted was a water initiative for the village (Baptista 2012). Funding still came from tourism for this, but the water project was never

completed, and the building of the school was (Baptista 2012).

This case study shows that even the best intentions through community-based projects can have shortcomings. Although NGOs attempt to create positive change they are not always effective. In the case of Baptista's study, they let tourism consumer power set the course for community initiatives, which did not actually meet local need. This stream of revenue although not centered in capitalism can still have clear ties to colonialism, wealth disparities, and social standing. Power and economy can be expressed in many ways. Consumerism is one of the ways that individuals exert their social power over their community and others.

## **Consumption**

What consumption means to an individual, how they make consumer choices, and the long- or short-term effects of these decisions speak to culture and past experiences. James Carrier (1990) examines the shift that occurs in objects from consumption to possession. He looks at how impersonal consumption has become, and the mindless way some individuals go about buying items (Carrier 1990). People often lack the ability to connect consumed items to the production that went into creating them. This is because many consumers are far removed from the production process. These consumed items hold little to no significance until they are brought home or used. This is the point in which they become possessions and hold a different meaning (Carrier 1990). Once this transition happens, objects begin to affect an individual's social identity.

As consumption and globalization increase, people construct new identities based

on their experiences (Rothstein 2005). An example of this is how working and middle-class people are now able to buy items that were once considered only for elite groups (Rothstein 2005). People are developing identities based on their market choices and what is new or newly available to them (Rothstein 2005). Class plays a major role in this recreating of identities as well (Rothstein 2005). Personal identity based on conspicuous consumption could lead to a restructuring of class. Pierre Bourdieu (1984) examined how people mimic consumption practices of higher social strata while the upper-class individuals recognize these behaviors and continue to enhance their own to maintain class distinction. However, this is not true of all social structures or communities. This brings us back the topic of power differentials within communities. Class level can create further divides in communities simply based on what an individual is able to consume. The divide is present in San Pedro between locals, expats, and tourists. Tourists consume all kinds of products while visiting San Pedro, while locals may be buying only necessities. This divide may separate the two populations by class and power, and exacerbate divides within the community.

When considering how people consume, we must look at social, political, and economic factors (Isenhour 2010). All these factors have a role in how an individual consumes on a daily basis. Cindy Isenhour (2010) looks at how government initiatives can drive people towards more sustainable consumer practices. She also examines how socio-economic status can affect the way someone purchases goods. People of lower socio-economic standing may not have the resources to make advertised “eco-conscious” decisions in consuming (Isenhour 2010). The social aspect of consumer practices also

plays a large role in any society. Bringing a reusable bag to the grocery store may be the norm in some places, but taboo in others. To avoid strange glances or the fear of being judged, people may stick to the status quo, which in turn shapes their consumption practices. Isenhour (2010) concludes by stating that when examining consumption practices, it is important to look at the different barriers that may be involved as well as the historical background of a place. The aftermath of all of this consumption takes us the conversation of waste and the ways in which it affects the environment.

### **Environmental Anthropology and Waste**

San Pedro's island economy is entirely dependent on tourism. The main driver behind the tourism industry is the Meso-American Caribbean reef that is located roughly a mile off the coast and hosts a handful of water activities such as snorkeling and scuba diving. As tourism increases, consumption increases, and waste management systems become even more strained, leaving the reef at risk of severe pollution and degradation. Because of this close link between the natural environment and tourism it is important to theorize the role the natural environment plays within a cultural context in San Pedro. Conrad Kottak (1999) theorizes an approach to environmental anthropology in which humans and the environment are not viewed as individual units of analysis but as factors that exist in the same space and time with blurred and contested lines. He looks at external forces such as colonialism and how these long-lasting ties can persist within the environment and a community (Kottak 1999). Kottak (1999) also brings together the global connectedness of these units of analysis. By working to understand how local,

national, and international factors of human-environment relationship play out, we can gain a better understanding of the relationship and increase our capacity to create real solutions for issues people and the environment are facing each day.

### *Waste as an Environmental Issue*

Garbage is a clear environmental issue the San Pedro community is facing. Per Kottak (1999), it is important to view this issue beyond individual units of analysis. This is an issue affecting the entire community to varying degrees and every person on the island contributes to the issue. Colonial ties can be seen in the power structures that surround the waste management systems and in what groups are more severely affected by the issue of garbage. This issue can be viewed from a local, national, and international standpoint as well. The sizeable flows of tourists who come from across the globe are large contributors to the waste on the island. All this garbage produced has negative effects on the environment. Many individuals connect their income to the “pristine” preservation of the natural environment since that is what drives tourists to the country. Conversely, the tourism industry in San Pedro also exploits the natural environment for economic gain. Driving the tourist economy is large hotels where sea walls are built, snorkel companies who chum the water so tourists can swim with sharks, and extensive fishing seasons that may not be sustainable for lobster and conch populations. Working to view the environment as a part of cultural and social processes such as tourism helps to give a better understanding of the issues being faced in San Pedro. These social processes are also closely related to the production of waste, which has direct consequences for the

surrounding environment.

The study of waste in anthropology has been typically conducted through archeology (Rathje and Murphy 2001). Archeologists have explored modern day dumps and historical trash middens. Although these research projects provide a good deal of information there is still much more qualitative data that can be incorporated into analysis. Few cultural anthropologists have begun to look at issues of waste, and those who have are usually not working in the Global South (Isenhour 2010). Of the cultural anthropologists whose case study research focuses on waste in the Global South, most focus on trash picking at dumps (e.g., Millar 2008; Nguyen 2016; Machado-Borges 2017). These case studies, along with others, help to theorize concepts such as value, temporality, morality, health, and risk.

#### *Waste Values: Temporality and Morality*

How an individual or culture places value on an object relates to their behavior surrounding it. By understanding why a person consumes and how, we can see what value they place on an item and the role that an object plays in both space and time for an individual. Thais Machado-Borges (2017) brings to light some very interesting aspects of waste perceptions based on her fieldwork in Brazil. She looks at how different people value waste. “Trash” and “treasure” are relative terms in places with great wealth disparities. Machado-Borges (2017) also looks at how class, gender, age, and race affect the way an individual views waste. It is also crucial to look at the temporality of a product; understanding the lifespan of an item gives insight into its attributes such as

value, durability, and the type of waste management system that is needed to dispose of it properly. All these attributes shape the way a person connects consumption to the waste they produce. That link is a significant factor when trying to determine ways to mitigate waste.

Morality is a topic that often arises when discussing waste. Josh Reno (2018) discusses moral-political waste; in this sense, waste relates to how we fit into our community through shared ideals and collectivity. Morality can also be seen in the way we view waste management workers. At times, these individuals are viewed as dirty or immoral because they are handling our waste (Machado-Borges 2017). How we classify people as dirty or clean creates a hierarchical structure (Machado-Borges 2017). If people who have a close relationship with waste are viewed as dirty and immoral, it may be difficult to find sustainable solutions to issues of waste. If more people form a closer relationship and understanding of garbage we are likely to have waste management systems that are more effective. Morality in relation to waste can also be seen in how a person disposes of their own garbage. People may feel a sense of being moral when they place garbage in a designated bin instead of throwing it on the ground (Isenhour 2010). The idea of garbage being dirty comes in the literal sense and affect human and environmental health.

### *Waste, Health, and Risk*

The health risks of garbage and pollution can be seen on the nightly news but, these risks are rarely felt by individuals living in the Global North (Isenhour 2010).

Although these individuals likely do not feel the environmental and health risks, many are educated on the implications of our actions such as driving cars, littering, and consuming plastic products. No matter where our understanding of these truths lies, we are likely not to feel this risk because we reside in a system that removes us from it. In the Global North individuals place their waste in bins and it is whisked away each week by trucks never to be seen again. This fast-paced world and the systems within it remove us from connections with nature and therefore we do not notice small changes in sea level, slightly more rainstorms, or the extinction of bird species. Health and risks related to waste, are felt differently by different communities and individuals.

Making the connection between waste and health risk is not always an obvious one, and many people lack the education and information needed to perceive the risk that their garbage has on human health. Ideas of risk can also be seen in the climate change discussion. Isenhour (2010) discusses how the Swedish population perceives the risk of climate change more intimately than others in the Global North and how this is a unique phenomenon because they do not actually feel the effects of our changing climate. How we perceive risk either from health or climate change related to pollution affects how we react to it. This is key when working to understand why a community behaves the way they do concerning waste.

### *Waste Management*

Human behaviors relating to various waste management systems can be seen in differing ways around the world. Kathleen Millar (2008) examines informal waste

management systems in Brazil. As discussed earlier individuals who work in waste management systems both formal and informal can be viewed as dirty or immoral (Machado-Borges 2017, Millar 2008). Millar states that working in an informal waste management system can also provide some forms of autonomy and agency. Informal waste management jobs such as trash picking allow people to self-regulate their work based on their own needs (Millar 2008). Millar (2008) states that this system and autonomy provides its own set of social relations and can blur lines for individuals from different social networks. Ming Nguyen (2016) draws similar conclusions stating that marginalized individuals can turn social uncertainty into valuable outputs by collecting and repurposing trash. Both case studies paint a rather rosy picture of the outcomes of self-employment in informal waste management. It is important to consider the political and economic factors that push an individual into informal waste management work. Neoliberal policy, racism, and colonialism are likely all factors that affect waste workers both formal and informal in the Global South. With a greater understanding of tourism through an anthropological lens, taking into account power, economy, consumption, environment, and waste, Anna Wex's 2002 study of waste in Central America provides real world context for the type of work I undertook in San Pedro.

### **A Study of Waste Management in Central American Tourism Contexts**

Anna Wex conducted a similar study to mine in 2002. Wex (2007) was working to understand waste management in the lakeside town of Panajachel, Guatemala. Her work is noted here because of the similarities between our two research sites, Panajachel and San Pedro. Both towns have booming tourism industries that came about within the

last few decades. They also both possess a natural resource that drives much of the tourism (Lake Atitlan and Hol Chan Marine Reserve). Both towns are home to significant expat communities that became established in the last few decades, around the same time that tourism rates began to spike (Wex 2007). Also of note, both communities subscribe to the same terminology of expat (expatriate) and have lingering colonial effects.

Wex's (2007) research looked at locals' views of trash, as well as how expats played a large role in creating and maintaining the waste management system. She likens expat stronghold in waste management to colonial models of power. Additionally, Wex (2007) examines the importance of traditional knowledge and cultural beliefs of local Guatemalans. She found that locals were accustomed to tossing their trash (e.g., banana peels) on the floor and expecting it to decompose; but now there was an increase in plastic products and the trash items being tossed on the side of the road (e.g., chip bags) are not able to break down in the same way. This habit of tossing trash on the ground is one that worked for centuries, but with the introduction of tourism and an increase in plastic products, these behaviors are no longer environmentally friendly (Wex 2007). Wex concludes her research stating that the waste management instated by expats was not as affective and this was because local culture and history were not taken into account.

### **Summary of Relevant Literature**

The culmination of all these different topics helps to provide context into the intricacies involved in plastic consumption and waste management in the San Pedro community. Viewing tourism anthropology in a historical context helps to set the stage

for present-day issues. The shift from Armchair Anthropology to Applied Anthropology show the development within the discipline that makes it appropriate for future study to be conducted on tourism (Wallace 2005). The shifts from mass tourism to post-Fordist tourism show where the industry stands currently, and what the future may look like. By viewing concepts such as power and economy we can see how personal behavior and industry effect the community every day. Looking at the drivers behind consumption we can see that capitalism and globalization are quickly changing landscapes. Through the lens of environmental anthropology, we can analyze how these changes are viewed in human-environment relationships. By working to understand the anthropology of waste and factors such as value, temporality, morality, health, risk, and waste management it is possible to uncover critical ways in which to address the issue of garbage moving forward.

## **CHAPTER THREE**

### **METHODOLOGICAL APPROACHES**

I set out to understand how tourism has shaped plastic consumption and waste management in a historical context, as well as consumption perceptions and practices. I crafted a mixed-method (qualitative and quantitative) approach to better understand these questions. My methods were clearly defined prior to beginning my fieldwork but did shift slightly to accommodate emerging conditions in the field. Taking an ethnographic approach to these questions ensured that I had a sociopolitical and historical context for the issues I was attempting to learn about (LeCompte and Schensul 2010, 17). Another hallmark of ethnography is researching an issue that has been identified by both the key stakeholders and the researcher as a social issue (LeCompte and Schensul 2010, 9-10). Although not everyone in San Pedro views garbage as one of the key problems facing the community, there are many who do. As people work to bring awareness to the issue through advocacy, more islanders are becoming concerned with the issue of garbage. My community partner, the BTIA, is one of these stakeholders that is continually advocating for improved waste management practices, and in turn, is bringing further awareness to the island as a whole.

In the following sections, I discuss my research site in San Pedro as well as the overall population. I also reiterate the differing identities within the community. Then, I explain my various methods, the rationale for selecting them, and how they played out during my data collection (e.g., questionnaire, interviews, collaborative ethnography,

participant observation, and the public record collection). The final section of this chapter discusses my approach for analyzing this data. Informed by my literature review these methods proved beneficial in uncovering meaningful information concerning the issue of plastic consumption and waste management in San Pedro, Belize.

## Research Site & Populations

My research site was San Pedro Town on the Ambergris Caye in Belize and most of my research was conducted within the town limits. However, I did meet with individuals who lived both north and south of town. The town center consists of three main streets and is bordered by the Caribbean Sea on the East and a brackish lagoon on the West (see figure 1).



Figure1: Map of San Pedro Town (Coconut Carts 2019)

As of 2016, there were approximately 378,000 individuals residing in Belize and 17,429 individuals in San Pedro (Statistical Institute of Belize Annual Report 2016). However, many locals believe there are roughly 20,000 individuals currently living on the Ambergris Caye. This relatively small island also hosts the highest percentage of tourists who come to the country Belize.

As discussed in chapter one, there are three specific populations within San Pedro that I was interested in studying; locals, expatriates, and tourists. By breaking the population into these smaller samples, I was better able to address how their differing opinions, backgrounds, and motivations may affect their consumption and waste management practices. As part of an applied anthropological practice my initial set of methods consisted of a questionnaire, interviews, a collaborative ethnography project, participant observation, and gathering of public records. These methods help me take a holistic approach where I can incorporate information from several points of view and examine any interconnectedness that may surface.

### **Questionnaire**

I initially planned to administer a questionnaire to the tourist population in San Pedro. My thought was that a questionnaire would be the easiest way to gather information from a group who may be less engaged in the topic of garbage. I expected that, since they were only visiting the island, they would have less of an interest in its long-term environmental status. Thus, a questionnaire would be the quickest and most efficient way to gather information from this population. I created a list of questions with Likert scales and multiple-choice responses and used an iPad app that allowed for

surveying without an internet connection. The questionnaire was structured to take roughly five to ten minutes to complete and to be administered face-to-face via iPad. One benefit of this method is that participants could ask questions if they were confused, while a noted disadvantage was not being able to collect as many responses in a one-on-one setting (Bernard 2006, 256-257). After a few days in the field, I decided against this method entirely. The time needed to collect a sufficient number of questionnaires and the potential information that I would collect led me to believe that this method would not be the most effective use of my time. Tourists only use the products that are available to them. They may be influencers in what products are being imported, but the ultimate decision is not in their hands. Once the garbage makes it into a receptacle, tourists have no control or knowledge about the islands waste management systems.

### **Semi-Structured Interviews**

Semi-structured interviews proved to be the best way for me to gather qualitative data from willing participants. These interviews typically followed a guide, but left space for both interviewer and respondent to discuss other topics (Bernard 2006, 201).

Semi-structured interviews provided me the time and space to sit with participants and ask pointed questions that could later be translated into qualitative data via coding.

Although semi-structured interviews were my main method, I also conducted several informal interviews. Informal interviews conducted in public spaces (e.g., bars, Central Park, and around town) helped me make connections, gather diverse perspectives and discuss potentially sensitive topics (e.g., government corruption) in relaxed settings.

For my semi-structured interviews, I worked from a conversation guide (Appendix F) pertaining to types of plastic products that are most used, why they are chosen, what resources are available to those trying to avoid plastic, and what barriers people may be facing when trying to mitigate their plastic use. I also asked interview participants if they had heard of the government initiative to cut out single-use plastics, as well as their thoughts on the new regulations. In these semi-structured interviews, I focused on three populations: locals, expatriates, and individuals working in tourism-related businesses. My initial goal was to complete 12-18 interviews, divided evenly between my different populations. I ended up conducting 25 interviews within a five-week span. I interviewed nine locals, ten expatriates, and seven small groups of mixed individuals.

I worked on recruiting interview participants in several ways: reaching out to people of interest, snowball sampling, and purposive sampling. Snowball sampling is when a respondent shares information about other potential individuals who may be interested in participating in the study (Bernard 2006, 192). This was an effective way to reach more people on the island and to find individuals who may be specifically interested in the topic, based on their friends' understanding of them. Purposive sampling is when a researcher identifies and recruits participants with desired qualities (Bernard 2006, 189-190). I used purposive sampling because I knew I had an interest in talking to individuals working in tourism-related business. The BTIA provided me with a list of their members from which to work. This gave me a sample population and a way in which to find specific respondents. I was also endorsed by the organization via an email

and letter. This endorsement was tremendously beneficial and helped me gain professional rapport quickly.

Lander (2014) discusses the importance of terminology used in recruitment. This was something that I found extremely important in my own recruitment process. When I approached prospective participants, I rarely used the word “interview” when asking for their involvement. Many people in San Pedro were, or would have been, deterred by the term interview and the formal connotation connected to it. Instead, I used terminology such as "talking" or "chatting." This helped ensure that participants felt comfortable if they agreed to move forward with an interview.

For most of my formal interviews, I met participants at their tourism-related businesses. Informal conversations typically took place at establishments in town. I also made clear to participants my intentions and objectives through a brief description of my project and a consent form. I explained to them that the information shared would be anonymous and that their personal information would remain confidential. During and/or after each interview, I was able to take notes about what was shared. I worked hard to ensure that participants felt heard and were not uncomfortable by the act of note-taking during a conversation. Lander (2014) notes how a laptop or notebook can act a physical barrier between you and an interview participant. If I felt participants becoming uncomfortable with my note taking, I would write less or stop completely until our conversation had ended. I found this to be a useful tactic in ensuring a relaxed environment for both the interview participant and myself.

My initial plan was to use a GoPro video camera and record audio and visual during interviews. I also came equipped with a basic audio recorder. However, during my fieldwork, I was not able to get many recordings. Many of my interview participants did not want to be recorded. I believe this was because many mentioned the government and the corruption they felt surrounded it. It was also difficult to record because at times interviews sprang up serendipitously or were in very public outdoor settings where the audio would have been difficult to hear. Because of this, I was only able to record four interviews.

### **Collaborative Ethnography Project**

The next method I used was a collaborative ethnography project. The idea behind this method was for me and others to keep journals about our experiences and thoughts on personal consumption of plastic. This idea came from Cindy Isenhour's (2010) study in Sweden where she describes attempting to live as sustainably as possible during her research, so she could better understand any barriers in her specific research site. This exercise provided perspective on the strengths and weaknesses of San Pedro's practical options for environmentally conscious consumption and waste management. In my study, I worked to create as little waste as possible during my stay and attempted to avoid plastic as much as possible.

I recruited nine local individuals to participate in this project. However, instead of asking them to alter their plastic consumption behaviors, I asked them to journal their everyday experiences (Appendix G). These nine participants represented two populations: Belizeans in their twenties (one male and three women; n=4) and expatriate

women over the age of thirty (n=5) who lived in San Pedro. I recognize that these two populations do not speak for the community as a whole, but they proved to be the populations most interested in participating. I contacted prospective participants in person and through social media. I then asked them to refer me to friends who may be interested in this project. I distributed journals and asked participants simply to write about their daily interactions with plastic. Because this was such a vague statement, participants took it in several directions. Some used the journal as a daily to-do/shopping list. Others used it as a diary recounting each day. This type of project allowed participants to record information, thoughts, and opinions on their own time and with little outside influence. This diversity provided a breadth of information. Participants discussed specific plastics they used every day and the ways in which they were consumed. They also wrote about feelings of guilt and anger surrounding garbage on their island. The journaling project proved to be a very interesting approach and was an excellent method to include in my research.

### **Participant Observation**

Another method I employed was participant observation. This method was beneficial to see everyday behaviors of both locals and tourists as well as obtain “experiential knowledge” (Bernard 2006, 342). Being able to participate in everyday island life provided an entirely new level of context for the information I was trying to obtain. I was able to observe different spaces such as Central Park, grocery stores, and beach areas to view how people were using plastic products and how they disposed of

them in public places. These natural settings are the hallmark of ethnographic research (LeCompte and Schensul 2010).

During my time in the field, I took notes and photos and worked to enhance my note taking skills and to be reflexive. I also worked to hone my free listening skills. I was interested in observing what plastic free options were available to consumers and what plastic products were being used most often and the length of their lifespans. I also wanted to better understand what the current waste management system on the island looked like. Bernard (2006, 368) discusses hanging out as an effective way to conduct participant observation. I believe that through this, and living daily life on the island, I participated in the community and saw people's behaviors in relaxed and natural settings. After five weeks of data collection in June and July 2018 and a trip back to the island in November 2018 to help the BTIA in their cleanup efforts, I feel that I am beginning to become a recognized and accepted individual by the San Pedro community.

### **Public Records Data**

My goal with public records was to obtain information about the government's plastic initiatives and about current waste management on the island. The main document that I wanted to attain was the plastic ban initiative. I became aware of this initiative several months prior to my fieldwork through a government press release that was shared on social media. It stated that by April 2019, the country of Belize would have phased out many single-use plastic and Styrofoam items. Since this was just a press release there was no information given on how this plan would come to fruition. Once in the field, I spoke with people in the Town Council or employed by them, hoping that they would have the

literature on this initiative. I also spent extensive time researching online, different branches of the Belizean government that might have access to the document. However, I was never able to obtain it. This elusive document is something I am still working to obtain and believe that it not being publicly shared presents an entirely new set of issues.

Along with the plastic ban document, I also wanted to better understand the current waste management system in San Pedro and gain insight into the amount and type of waste moving through it. I was able to find Inter-American Development Bank (IDB) reports and speak with individuals employed in sanitation roles. I gained valuable insights into the amount of garbage being collected each day and the specific channels in which it travels. Very few formal studies have been conducted on waste in San Pedro, which made gathering this information more difficult. I was informed about a study done several years ago by a group of German researchers on the volume of garbage, but no one possessed the actual data or reported results. I also worked to gain information on the possible negative side effects of improper waste disposal on the island. Gathering all these different types of information in different formats provided more background to my research and helped me gain exposure to government workings and intricacies.

### **Qualitative Data Analysis**

Upon returning home from my fieldwork, I converted my research notebook into an online Word document. My notebook covered interviews both semi-structured and informal, participant observation, online research, my personal ethnography of attempting to live sustainably, and other various notes. I also converted all nine collaborative journal projects into an online format as well. To analyze these data, I read through each data set

and made a list of common themes. Then I created a codebook to encompass all themes that emerged from the two. Next, I went line by line and coded each set of notes in a hard copy format. These codes were then organized into an excel spreadsheet for further analysis of how gender and identity tied to the different common themes. This procedure of qualitative data analysis helps to bring together different pieces of information and differing perspectives by searching for patterns (Bernard 2006, 452). It creates a model for interpreting the different stories each person tells through their interviews (Bernard 2006, 451). This data directs the analysis of my findings and provides a structure for discussing how my fieldwork relates to the concepts discussed in my literature review.

### **A Summary of Methodological Approaches**

I found that all these approaches combined were an effective way of assessing as much of the community in San Pedro as possible. By outlining the various populations in San Pedro, I was better able to understand how their views may differ concerning plastic consumption because of their diverse experiences and worldviews. Interviews provided me with the time and space to ask pointed questions, as well as allow participants to express their own thoughts and ideas on consumption and waste management. Participant observation and the collaborative ethnography allowed me to connect what people were saying to how they behaved. My collaborative ethnography project proved to be an effective way of understanding how an individual thinks, while giving them the creative freedom to share their story in their own way. Lastly, gathering public records helped me to lay the groundwork for understanding community dynamics and civil workings, initiatives, and policies. Using these various tactics employs the method of triangulation

to approach an issue from several viewpoints and provide the most accurate and encompassing information and data possible.

These methods informed my research that will be presented to the BTIA in the form of a final report upon completion of this project. I hope that it will be beneficial to the BTIA in creating programs, projects, and initiatives that will be knowledgeable and create solutions to fight plastic consumption and ineffective waste management in San Pedro in the future. To protect all parties involved, I will retain control of my primary data and conclusions. My data is stored on a password-protected computer and will be deleted upon completion and fulfillment of the San José State Applied Anthropology MA program.

## **CHAPTER FOUR**

### **NATIONAL CONSUMPTION AND WASTE MANAGEMENT CHANGES OVER TIME**

For this project, I set out to understand consumption and waste management in San Pedro through a historical and cultural context. My research questions focused on history, perception, and behavior of individuals concerning consumption and waste. From this research, I found a plethora of information about the formal waste management system within the San Pedro and the entire country of Belize). This formal system is run by national and local government as well as contracted to private businesses. My research also focused on the plastic ban that was being implemented by the national government. Both the formal waste management system and the plastic ban initiative can be viewed in a historical setting as consumption and waste management have changed over time in San Pedro. I also examine barriers to plastic consumption mitigation and various initiatives individuals are taking. Lastly, I examine tourist clean zones and perceptions of trash on a local level. This information provides background and understanding for the following chapter, which focuses on these issues on a community level as well as the different types of informal waste management that are taking place on the island.

#### **Formal Waste Management System**

The formal waste management system in San Pedro has gone through many changes in the last several years. In 2013, the Belizean government secured funding from the Inter-American Development Bank (IDB) that was used to build several garbage transfer stations throughout the country. This funding also supported the creation of a

new landfill on the mainland, where all transfer stations deposit waste. Prior to the construction of San Pedro's transfer station, there was a landfill on the island. In 2015, the transfer station became operational and was run by a private Mexican company, PASA. After only a few months, PASA went bankrupt and operations at the transfer station shut down. The national government took over operations and now runs the transfer station and pays salaries for the two employees who work there (see figure 2).



**Figure 2: Transfer station south of town**

The transfer station allows for town dump trucks to drop garbage and for local citizens to bring trash; however, they are charged a small fee. Signage at the transfer station states that the facility accepts domestic/residential waste, commercial waste, electronic waste, green waste, and construction/demolition waste (see figure 3).



**Figure 3: Signage from the Transfer Station south of town**

Once garbage makes it to the transfer station, it is stored in a semi-enclosed warehouse until it is loaded onto trucks and then a barge and sent to the landfill on the mainland. The barge operation is outsourced to a local company on the island not affiliated with the government.

The formal system for garbage collection is run by the San Pedro Town Council. The Town Council has three trucks that run set routes seven days a week. Their drivers work from 3am to 11am each day. They collect garbage from bins along their route and then deliver it to the transfer station south of town. One important take away from this is that the system as a whole is very disjointed from local to national government to private company operations. This created a problem in 2017 when the private company PASA went bankrupt and operations ended abruptly, leaving garbage to pile up at the transfer station. This disjointed system also leads to operational issues between the garbage trucks (local government) and the transfer station employees (paid by the national government). This waste management workflow including both public and private entities is not unique

to Belize and is common around the world. As tourism has increased over the last several decades, the waste management system has adapted to cope with the increased volume of waste produced. Just as tourism became a space for capitalistic venture so too did waste management. Wallace (2005) states that tourism is a product of globalization and capitalism. Waste management can be viewed in a similar way when parts of the system are contracted to private companies for management. Although this can lead to development and new creative forms of management, it can also produce a disjointed and ineffective system as seen in San Pedro.

### **Waste Management User Experience**

The understanding of formal waste management as a broader structural process also gave research participants the space to discuss their personal experiences using it. Confusion over garbage pick-up fees and illegal dumping is prevalent on the island. There was no consensus on who pays garbage pick-up fees to the Town Council and how much those fees should be. During my interview with one Town Council employee, I was told that all residential garbage pick-up is free and that all businesses pay. After speaking with several interview respondents, I found this claim was often contested. One of the only corporate chain hotels on the island stated that they do not pay for garbage pick-up, while individual residents told me that they do pay.

Many interview participants also voiced concerns over garbage pick-up schedules and truck consistency. When speaking to a Town Council employee, I was told that the waste collection system in San Pedro was lacking in resources and as a result, they sometimes did not finish their collection routes. This interviewee expressed that they

lacked adequate personnel to drive and load the trucks and were not able to hire more because of a lack of funding. He also expressed that there was no back-up equipment in the event of a truck breaking down and that fixing them was very difficult on the island. Lastly, I was told that if trucks became too full or they ran out of time on their set shifts, collection workers would not complete their routes for the day.

Another issue that interview participants expressed concern over was garbage bins. Theft of bins, inconsistent pick-up, and natural forces all make waste management a more difficult task for the island's residents. Participants reported that their bins were often stolen, or that they were left out too long because of collection delays and wind or animals got into them and spread trash around. To mitigate these issues, some individuals painted their bins with elaborate designs or colors. They also built stands in front of their homes or businesses to place bins in so they could not fall over. The formal waste management system in San Pedro and Belize as a whole has come a long way in the last several years (see figure 4).



**Figure 4: Sign stating that dumping garbage is punishable by hefty fine**

As tourism has increased and, along with it the amount of waste, the country of Belize has made strides to cope with the issue.

There is still work to be done to make this system efficient and effective on a wider scale. Some issues in the formal waste management system may shed some light on the practice of illegal dumping of garbage. This disjointed and at times ineffective system may lead people to take the road of least resistance and dispose of their trash in their yards, empty lots, or sides of the road near their home. The San Pedro Town Council states that dumping trash into these areas is illegal and punishable by a hefty fine; yet, according to members of the BTIA, no persons on the island have the power to write these tickets, nor is the ticket book needed available. The issues concerning formal management are not overlooked by the national government and as a result they have been working to pass policy banning single-use plastics within the country.

### **The Single-use Plastic Ban**

As I began outlining and planning for my fieldwork in Belize, the national government issued a press release stating that they planned to ban many single-use plastic and Styrofoam items from the country by April 22<sup>nd</sup>, 2019. Because of this press release, my research focus changed slightly to incorporate this new initiative. I set out to understand how people felt about this plastic ban and their thoughts on its effectiveness. Every person I spoke with had heard about the Plastic Ban in some way. Yet, this was also a space where I found misinformation to be prevalent. Some concepts that were presented by participants were distrust in the government, identity politics, cooperation, risk perception, and consumption.

Two interview participants who were employed by the local government claimed to have never seen any official documentation on this initiative. Twelve interviewees stated that they did not have faith that the national government could effectively implement this new initiative. However, several people voiced the opinion that change could come from a local initiative, either through the Town Council or other organizations. This conversation also brought up concerns regarding government corruption. Participants expressed concerns over the government channeling funds in inappropriate ways and only pushing forward initiatives that benefitted them. As the country of Belize has moved away from agriculture and has placed more emphasis on growing its tourism industry, more streams of revenue have been entering the country (Belize Statistical Institute Annual Report 2016). Capitalism at its root marginalizes the masses while placing wealth into the hands of a few (Bunten 2008). This concentration of wealth can be seen in Belize and specifically in the tourism industry. While local people are working in tourism-related jobs (e.g., bartenders, servers, housekeepers) for minimum wage the majority of the income made from tourists goes to business owners, many of which are expats in San Pedro, and towards government taxes and fees. Tourism as a capitalistic venture is very lucrative for those who hold the power and this concentration of wealth exacerbates racial and social divides. This can lead to corruption within government and business.

Along with corruption, many participants also voiced opinions about race and identity when it came to enforcing this new ban. Although some participants do not have faith in the capacity of the national government to effectively lead this project, they also

voiced concerns about organizations such as the BTIA leading the charge because of the large, white expatriate population that is active within it. One participant stated, “gringos are the minority, but they are the majority that shows up.” Having a non-profit organization led by mostly white individuals creates a further racial and social divide within the island and the issue of consumption and waste management. NGOs such as the BTIA give power and a voice to those involved. But when the majority of participants are expatriates, the social and racial divide and power inequality is exacerbated (Bunten 2008). Through the color of their skin, their wealth, and colonialist background, expats wield exponential power that does not always take into consideration local people. People do not trust the national government to make the change and feel more hopeful that it will come from on the island; conversely, many others are skeptical the people with power on the island will make the changes that are needed for the community as a whole.

While it is true that “gringos are the majority that show up” for non-profit meetings and initiatives, it is not an accurate characterization of the island as a whole. The San Pedro community can and does cooperate and participate when people are in need. The San Pedro community has experienced several devastating fires in the last few years. The impacts of these fires are exacerbated by slow response, ineffective practices, and a lack of operating trucks and pumps within the local fire department. However, during these fires, people have come from all over the island at all hours of the night and participated in bucket brigades from lagoon to ocean to help put these fires out. At these times, “gringos” have not played considerable roles nor turned out in more significant numbers than locals.

The act of communities showing up for each other in disaster or emergency contexts is not unique to the island. This pro-social behavior in response to disaster events can be seen in many different contexts (Hoffman 1999). Many disaster anthropologists have found that individuals and communities come together in the immediate aftermaths of emergencies, but support and action tend to be short-lived (Hoffman 1999). It should also be noted that the way someone responds to one disaster does not reflect the way they will respond to another. So, while it can be said that the San Pedro community, in general, rallies in support of each other after disasters, this may not always be the case. This makes it hard to predict how people will react to ongoing issues of waste management since response is not consistent and this is a long-term emergency; not an acute disaster such as a fire.

While some interview participants felt that expats were more active and concerned about the disaster response related to waste management others expressed the feeling that locals felt they had a “brown privilege” that they did not need to be active in dealing with the issue of garbage because the expats would take care of it. The term “lazy” was also used in this same context by another participant. Comments such as these were made by three Belizean participants. This juxtaposition shows how locals may be more inclined to respond in short bursts during acute crisis and expats are responding to more long-term issues. This could be a result of social structure and the different fears and insecurities that both populations face on a daily basis.

This brings up the concept of risk and how an individual understands and responds to it. Isenhour (2010) examines how people respond to climate change based on

their perceived understanding of the risk involved. Her study focuses on Swedish citizens and how their acts of sustainability are rooted in morality not in immediate risk for their own health or wellbeing (Isenhour 2010). She states that Swedish culture, which emphasizes humanitarian acts and empathy, is the reason these individuals living in the Global North are taking such drastic measures to mitigate their carbon footprint (Isenhour 2010). It is important here to understand the different daily insecurities that are faced by individuals living in the Global North verses the Global South. Most local people on the island cope with issues of risk each day concerning income, job security, providing food for their families and much more. Most expats on the island, who originate from the Global North, do not feel the same amount of risk in these categories. Since expats are not typically concerned about daily income or security, they have the luxury to consider more distant and at times abstract risk. While it is clear individuals understand risk perception based on their own social standing, Isenhour (2010) presents culture as a determining factor as well. She states that humanitarian acts are part of Swedish culture, which drives individuals to alter their daily habits in the hope that they are creating some good for the world and its inhabitants. The idea of committing humanitarian acts of behalf of individuals and communities around the world who cannot make the changes for themselves could be purely altruistic, but it could be a way to form identity as well. Benevolent acts benefit both the giver and receiver. However, the divide still remains that an individual can only give as much as they have. The “haves” and the “have nots” in San Pedro can pretty clearly be seen across racial and social lines. Working to understand these different perceptions of short-term and long-term risks between varying populations

on the island is important when trying to find solutions to consumption and waste management issues.

Another intricacy to this divide is seen through the placing of blame on to different groups. Expats were seen placing blame on locals and locals were seen placing blame on Guatemalans and Hondurans. One participant noted that it was these two groups who dealt with garbage incorrectly, not Belizeans. This distinction shows the divide of identities on the island. Many individuals who have been in Belize for generations contest the fact that Guatemalans, Hondurans, or Salvadorians identify as Belizean after several years of living within the country. The act of separating themselves through various behaviors solidifies the divide that they feel and perceive. This is another way of separating “us” from “them” (Bunten 2008) These social divides may also be seen in the layout of neighborhoods or in job availability as well. There are a handful of distinctly local neighborhoods such as San Mateo and DFC (the Development Finance Corporation), a government-funded housing development. There are also areas of apparent affluence where locals likely cannot afford to live. These geographic boundaries may be stark in some areas and blurred in others. This brings back Gupta and Ferguson’s (1992) point that people and their respective identities do not exist neatly bound on a map, but instead move fluidly through it.

### **The Need for Resources: Barriers and Personal Initiative**

Racial and social divides can also be viewed through socio-economic standing as well. When considering waste management and the plastic ban, it is also important to think about access to resources and the barriers people may be facing when attempting to

mitigate their plastic consumption. Nine out of eleven tourist business employees that I interviewed, stated that they had made changes to their plastic consumption practices. When discussing the ban on single-use plastic and Styrofoam all were aware of it, but many were skeptical that it would come to fruition or be effective.

Participants discussed the need for alternatives once the plastic ban has taken effect. Seven out of eleven business owners noted the need for tax cuts or incentives for purchasing eco-products (e.g., compostable or biodegradable plastics) as well as more options on the market. At the time of my fieldwork, there was only one company within Belize that had eco-products for sale and many participants noted that they ran out of stock often and it was difficult to get them on the island. Participants who owned businesses voiced concerns about the increased cost that their establishments might incur when having to purchase eco-friendly products and in turn that cost that may be passed on to their customers. This might be especially difficult for smaller businesses, such as the small food stands many locals depend on for lunch each day. Other than cost, some other barriers noted were weight, customer comfort, and hygiene.

Customer comfort was a concern of many business owners as tourists expect to be catered to while vacationing. One example where customer comfort had been an issue was with paper straws which become soggy after several minutes of use. This has led to complaints from many tourists and locals. Hygiene was another issue. One business owner noted that she had switched to bamboo straws at her restaurant and one night a customer snapped one in half during a moment of rage over the fact that she felt a bamboo straw was unsanitary. This business owner relayed back to me the extensive

cleaning process that they used in order to ensure the straws were clean. This included using bleach and high heat from the oven. The customer comforts are barriers businesses are facing and as a result many have come up with other personal initiatives to mitigate plastic consumption.

Some of the plastic-mitigating behaviors participants noted were, switching to paper or bamboo straws, using eco-products, purchasing reusable bank bags, storing plastics for recycling outside of the country, providing employee lunches in bento boxes (Japanese to-go containers), investing in reusable items for restaurant, and reusing plastic bottles for cleaning. Personal initiatives by businesses were more prevalent in some than others. Three of the businesses owners I interviewed stated that they had almost eradicated single-use plastic from their operations. They are all businesses owned and operated by expats. This is not to say that all expat owned businesses are excelling at plastic mitigation. However, this may show that these are individuals who have more connections, resources, or means to make changes.

The cost and accessibility of eco-friendly products may be felt differently by local and expat business owners as well as by their different customer bases (e.g., local, tourist). Consumption between these two populations can be examined in different ways. Consumption has become a mindless and impersonal act for many people (Carrier 1990). Conversely, people also can use consumption practices to shape their identity (Bourdieu 1984; Rothstein 2005). Having the newest iPhone or buying reef-safe sunscreen tells us something about how an individual sees themselves, and how they want to be seen. If consumption practices can elevate social standing in a community where the divide

between expats and locals is clear, many are likely to attempt it. Similarly, if buying a reusable water bottle and tote can say something about who you are and what you believe in, maybe this can be an effective way to tell the world how you want to be seen without saying a word. The way an individual consumes speaks to their constructed self identify, social standing, gender, and economic standing. It also brings back the topics of capitalism, globalization, and colonialism. Without considering how consumption plays out in a historic context or on a global scale there is a larger piece of the puzzle missing.

Since the conclusion of my fieldwork, the plastic ban effective date (April 22, 2019) has come and gone. The passing of this date has shown little changes in consumer practice on the island. These barriers being faced by businesses in their attempts to mitigate plastic use are partly infrastructure and policy issues and partly stresses of dealing with a tourist economy where people expect to be catered too. It is clear that people want to make change even when facing adversity. This gives hope for the island in terms of implementing new programs and policy relating to curbing plastic consumption and instilling an effective waste management system. Steps are still being taken at the national level to push policy forward that will alter consumption and waste management practices. The Department of Environment (DOE) is working together with a UK based organization called the Commonwealth Liter Program (CLiP) and many other stakeholders within the country to push for change through legislation and policy. The meetings, research, and conversations that have stemmed from this collaboration appear positive, however, many people on the island are still skeptical real change will be

seen. Another space where government action can be seen is in the formation and maintenance of tourist clean zones.

### **Tourist Clean Zones**

Throughout my research and during specific outings to conduct participant observation, I noted the presence of tourist clean zones. These are areas more densely populated with tourists and as a result, are more regularly cleaned by businesses and government entities (Wex 2007). Tourist clean zones show how space is organized and structured and how this reflects different classes within San Pedro. One specific site where I found this to be true was Central Park. This park is in the middle of downtown San Pedro and ocean-facing. There are benches, trees, a playground, and often, local food vendors. In this small park, there is also an abundance of trash bins within a relatively small space that are emptied regularly. On top of having ample places to put trash, there are also employees (hired by the Town Council) who regularly clean any trash from the area and keep up its overall maintenance. Tourist clean zones are noted by Anna Wex (2007) in her study of a tourist town in Guatemala. These areas give tourists the perception that the space is always pristine. It perpetuates the tourist-imagined reality of "paradise."

Tourist clean zones can also be seen in front of many large resorts where the beaches are groomed with rakes and shovels each morning sweeping away the garbage or seaweed that washed up from the day before. There are no defined boundaries that tourist clean zones exist within on the island. The three main streets that make up town are generally more well-maintained by Town Council than surrounding areas. However, a

difference can even be observed in maintenance levels starting from Front Street and working your way to back. The more heavily populated tourist spots have the highest priority. Aside from town, tourist clean zones can be seen in and around tourism businesses. These spaces are defined by property lines and there is often tension between neighbors over keeping spaces clean, in order to keep up the façade of paradise for tourists.

These tensions and people's individual property rights often make it hard to sustain this imagined tourist paradise. This imagined paradise does not take into account wealth disparities, social and racial inequality, or colonialism. There is a distinct contrast between these tourist clean zones and local neighborhoods. Local neighborhoods are spaces a tourist would never end up unless they made a wrong turn off the main road. Nevertheless, when a tourist does end up in one of these spaces they are often shaken by what they see and it can alter their perspective of "paradise" and the country of Belize.

One interview participant who owned a small boutique hotel stated that locals do not see trash. This observation is missing some key understandings as to why locals do not appear to care as much about the garbage problem in San Pedro. Another interview participant who owns the only certified eco-friendly hotel on the island explored the idea that locals do not place as much importance on proper waste management because of the vast wealth disparities on the island. This is an important aspect to consider and one that is often blanketed with bold statements like "locals don't care" or "locals don't see the trash". Wealth disparities can show how people prioritize things differently. Racial and social inequality can be seen in the boundaries of tourist clean zones and the tensions

between neighbors in coping with the garbage issue. Colonialism is perpetuated in statements like “locals don’t see trash” and feelings that the white expats on this island are the only ones who care and are willing to do anything. Tourist clean zones perpetuate the idea of this imagined paradise that in turn supports the local economy, but these areas also spread so much inequality throughout the island.

All of these concepts help to unpack the intricacies involved in consumption and waste management in San Pedro. The formal waste management system provides context for national and local operation. The plastic ban shows potential progress for the country through restrictions on materials imported and changes in import tax. It has also sparked national conversation and brought to light the various barriers people are facing when attempting to mitigate plastic consumption. Tourist clean zones help us begin to unravel issues of social and racial divides on the island. This information sets the stage for the following section working to understand the issues of consumption and waste management at a community and individual level.

## **CHAPTER FIVE**

### **COMMUNITY CONSUMPTION AND ACTION**

Along with formal systems of waste management such as transfer station operations and new policy banning plastics, I also found information on several informal waste management systems in San Pedro. The informal systems are viewed by many as being more effective than national initiatives. However, they do bring up more community issues such as, colonialism, social and racial divides, socio-economic inequality, barriers to resources, and feelings of guilt and fear. These themes arose in my interview findings as well as my collaborative ethnography project and personal experiences. They all relate back to my research questions centered on historical background, perception, and practice surrounding waste management and consumption on the island.

#### **Informal Waste Management Systems**

A particularly salient finding from my research was several informal waste management systems that are in operation on the island. The most prominent informal waste management system that operates in San Pedro is a glass and plastic bottle collection site south of town. This operation is run by middle-aged, white, Texan businessman who goes by a nickname that I have pseudonymized as Yucatec Tony. Yucatec Tony has placed blue garbage bins around town for plastic and glass bottle collection (see figure 5).



**Figure 5: Plastic bottle collection bin at local business**

These bins are at various businesses around the island and he has an effective pick-up system in place for the waste collected in these receptacles. Bottles are brought to an empty lot south of town and then shredded using a large machine (see figure 6).



**Figure 6: Empty lot south of town used to collect plastic and glass bottles**

The shredded material is then made into blocks that can be used as building materials. The diversion of this material from the landfill constitutes a significant positive impact on the accumulation of waste on the island. This is the most established and efficient informal waste management system that is currently happening on the island. Part of the reason this system is so effective is that businesses have little to no involvement other than providing a space for the bin. Since there is no financial cost nor time expenditure, most businesses have been very receptive to having these bins installed at their establishments. It is also a system of sorting (large blue bins with recycle emblem) that many tourists are accustomed too, which makes them more effective.

Yucatec Tony collects both plastic and glass bottles and uses the shredded material to create pavers for one of his on-island businesses. The free recyclable material that is collected is used to create his business product and generate a profit for him. During an interview, one participant noted that the only way to create an effective waste management system was for it to be profitable. It should be noted that the profit concept was also incorporated into the BTIA's initial plan for the SPJC garbage curriculum. Here we see that Yucatec Tony is in the beginning stages of creating a waste management system that is potentially very profitable for him and effective for the community.

Yucatec Tony is a prominent figure in the informal waste management systems on the island. However, there is still a racial and social divide that exists between Yucatec Tony and locals. This project took an anthropological approach to the issue of consumption and waste management on the island and because of this it is important to consider the implications surrounding Yucatec Tony's nickname. The fact that he refers

to himself in this manner when he is a white foreign male was unsettling to at least four individuals I spoke with during my fieldwork. Taking the name of an indigenous group that you are not a member of can be seen as a sign of disrespect. It can also be considered as a form of perpetuating colonialist sentiments; taking what is not yours. Feldman (2011) examines how colonialism has left many lingering effects within communities and perpetuates issues of inequality through race, gender, and class. That a white American male can claim such a moniker while enjoying the privilege of status on the island is evidence of the enduring social, racial, and economic dynamics set in motion by Spanish and British colonists. By using the name and having the social, racial, and gender standing that Yucatec Tony does, he is continuing the process of marginalizing the local community in San Pedro. Wex's (2007) case study explores how an expatriate strong hold in the waste management systems in Panajachel, Guatemala created solutions that were not entirely effective for the local community. They did not take into consideration history and culture and how the two might affect behaviors and understandings related to consumption and waste. The simple act of using the name, Yucatec Tony, shows that this individual may lack the historical and cultural context needed to appropriately address the issues of consumption and waste management for the larger San Pedro community. It should be stated that the intentions of this individual may not come with any malice, but certain actions or words may have that effect.

Another form of informal waste management seen on the island is trash picking. However, it is not as common on the island as in many other developing countries (Millar 2008; Nguyen 2016). Millar (2008) describes the struggles for autonomy that

trash-pickers in Brazil face each day as they work to collect garbage material with value. The men who work for the Town Council doing formal waste management collection can be seen gathering materials for themselves such as plastic gallon jugs. These jugs are repurposed within their homes or used in businesses such as in the roadside sale of coconut water. There is one trash picker who works daily at the transfer station. Her name is Esmeralda; she is a Guatemalan woman in her fifties who speaks little English. Esmeralda is not formally employed but is allowed to collect materials from the transfer station that she deems valuable (see figure 7).



**Figure 7: Area where Esmeralda sorts through garbage each day**

Each day she comes to work prepared with knee-high rubber boots and gloves. She rips open trash bags and climbs mountains of garbage to find items that she can sell for a small profit. At the transfer station, there is also a collection of tires, Coke bottles, and glass rum bottles. These have been separated by the on-site employee for either safety reasons or for the purpose of finding a place to sell them for profit. The profit from these separated items is not collected by Belize Solid Waste Management and presumably goes into the pockets of transfer station employees once they find buyers.

Trash picking is not a common practice in San Pedro because of the stigma surrounding garbage. As in many other areas of the world, it is viewed as dirty and those associated with handling it are seen as such (Machado-Borges 2017). In November 2018, while I was participating in the island-wide cleanup hosted by the BTIA, I was working at the transfer station with eight local men. We spent hours in the hot sun sorting endless piles of garbage that had been pulled from the mangroves and street sides (see figure 8).



**Figure 8: Piles of garbage pulled from street sides and mangroves during cleanup**

During these few days, I attempted to take a few pictures of the work we were doing. Many times the workers openly expressed that they did not want to be photographed in the space. Was this that they did not want to be featured on social media working with garbage? Were they afraid of how others would view the work they were doing? In my collaborative ethnography, one participant noted “I took out a little bag of trash...when I went throw it away the garbage was overflowing, I wanted to try and organize it, but I also didn’t want to touch it...so I chose the path of least resistance and threw it in an empty garbage (bin).” This sentiment, although relating more to the hygiene aspect of handling garbage, still shows the stigma surrounding waste work on the island.

Organized cleanups like the one I participated in in November 2018 are also another form of informal waste management that is spread widely throughout the San Pedro community. The BTIA’s cleanup was a large four-day operation with lofty goals. They were able to raise money to pay roughly thirty local workers and also attracted several dozen volunteers. However, because of the sheer volume of garbage that was found within the first cleanup site, they were not able to accomplish the initial goal of cleaning eight different areas.

Many local businesses also host beach/street cleanups on a weekly or monthly basis. They work together with employees, tourists, and friends spending a few hours cleaning up trash on the beach mostly. This philanthropic act is very common with tourism-related businesses who have beachfront property. Moore (2015) discusses the current industry trends toward eco-friendly vacations. These acts of helping, make tourists feel as if they are contributing in a positive way to the local community in which

they are vacationing. While it is true that every small act helps, after these cleanups, tourists return to their hotels and typical vacation consumption behaviors (e.g., cocktails in plastic cups, plastic water bottles, to go containers for food). Baptista (2012) describes this phenomenon as the “virtuous tourist,” an individual who sees their acts of good as a way for them to become more moral individuals.

Feelings of responsibility and the increased morality that comes from acts of giving could be drivers for individuals living on the island to participate in informal waste management systems such as cleanups. There is also a newer organization called “Keep San Pedro Green and Clean” that is hosting regular cleanups across the island. The majority of the contributors to this are expatriates although some locals do attend on occasion. This again reiterates the social divide between expats participating in organized cleanups and the majority of locals who do not. Another organization, the DFC Eco Rangers, made trash buckets painted like Minions, the characters from “Despicable Me,” the popular children’s animated film by Universal Pictures, and had local businesses adopt them free of charge. These were supposed to serve as community trash receptacles that businesses would ensure were disposed of correctly. However, these buckets are often seen overflowing with trash blowing around in the wind. The Town Council employee who manages formal waste collection also noted that these buckets slowed down his employees who attempt to empty the full ones that are on their routes. This is further exacerbating the ineffectiveness collection system on the island. Although these buckets seemed to be a simple solution to the problem of littering, they did not end up being as effective as people hoped and the adoption of them is still taking place.

My research participants noted two other types of informal waste management that were being conducted in San Pedro. I was told there was an individual who collected used cooking oil from businesses to repurpose it. However, I was never able to verify this information. I was also told that there were two places on the island that did large-scale composting. I was able to verify one place, but the information and connections needed to actually utilize this resource were difficult to obtain. I had to know a guy, get permission, and know how and where to enter the private employee section of a hotel. This obscure information and the difficulty in obtaining was a theme prevalent throughout my research.

### **Misinformation and Lack of Information Dissemination**

Misinformation and lack of information dissemination on the island concerning garbage and waste management was widespread. Of the twenty-five interviews I conducted, ten participants expressed confusion over the formal waste management system, their options in informal waste management, and in the definition of terms related to waste. Participants noted that they were unclear on Yucatec Tony's informal waste management system as well as the Town Council's formal system. Yucatec Tony's operation was clearly the largest and most-utilized informal waste management system on the island. However, several times interview participants described his business to me (e.g., blue bins with sticker, empty lot south of town), but did not have all the information needed to effectively use this resource. Perhaps they were using the resource, but did not know what was happening with the bottles. One participant stated that the transfer station was sorting recyclables from the garbage collected. My observations at the transfer

station and other opportunistic interview data, however, were not consistent with this claim. No materials were formally being sorted for the purpose of recycling. However, as mentioned previously, the employees performed some small scale sorting of materials for their own financial gain. Another participant did not even know the name of the transfer station.

There was also confusion over terms such as compostable, biodegradable, and recyclable. An employee of the Town Council explained to me the two phases of the garbage plan as proposed by the national government. His explanation of the phases did not match the information I found online. This misinformation and lack of information dissemination appeared to create confusion and frustration for many participants. They wanted to know what their options were but did not know where or how to obtain the information they needed. One participant stated that the best way to disseminate information to the island community was through the local radio. She also stated that commercials airing during the Telenovela (Spanish-language soap opera) hour reach many people. It was clear that people want more information on their options for waste management in San Pedro and that misinformation and lack of information affect how they perceive trash and waste management.

### **Collaborative Ethnography Project**

During my fieldwork, nine individuals on the island participated in my collaborative ethnography project. They were given journals and simply asked to write about their everyday experiences with plastic. Several themes arose from these notebooks including, feelings of guilt and regret, picking up after others, reuse and repurpose of

materials, and personal initiative. All of these themes relate to how each individual understands and experiences plastics and the waste management systems on the island.

Feelings of guilt and regret concerning plastic consumption were expressed in different ways, some participants drew unhappy faces and others wrote hashtags such as “straw guilt.” One participant, Adrianna, used self-deprecating language, stating “I suck” after she wrote about forgetting to leave her disintegrating gym bag at home (she felt that because it was breaking apart she was littering small pieces of microfiber plastics).

Adrianna is a Belizean woman in her early twenties who is currently attending university for international relations in Texas. Her family has lived on the island for several generations and opened one of the first hotels in San Pedro. Another time where Adrianna expressed negative feelings surrounding consumption of plastic was when she considered bringing a reusable container for to-go BBQ. She said, “I honestly thought about how weird it would be if I took my own container next time. I am already that girl that asks for BBQ with no meat, in reality, they probably expect the weirdness. I'll have to try it sometime.” This fear of being judged is very common and deters many people from altering their consumption behaviors in public settings. These statements reflect the notion that we shape our identity based on our consumer actions (Rothstein 2005; Carrier 1990). Adrianna was experiencing a shift in her identity as she worked to become for eco-friendly in her everyday behaviors, however, she still experienced fear of judgment that others would not understand this identity. There is a reversion occurring within consumer practice as individuals like Adrianna attempt to behave in eco-friendly ways.

Pierre Bourdieu (1984) examined how consumer practices are used to jump social strata. As plastic items gained global recognition, reach, and status, consumers moved away from reusable items. Having the latest Tupperware showed family, friends, and neighbors the social standing an individual had. As a society, as we shift away from these items there are obvious new ones that fall into categories of raising your social status (e.g., expensive Yeti tumblers or Hydro Flask water bottles). However, some items/behaviors are not as socially accepted such as reusable takeaway containers and in many places reusable shopping bags. Navigating this social standing in relation to consumer behavior and identity is no doubt a difficult task. Adrianna is not unique in making these changes, but she is likely one of the few people within San Pedro who is attempting change on such a drastic individual level.

Another theme that arose from the collaborative ethnography project was the act of picking up other people's litter. Out of my collaborative ethnography participants, three of four locals mentioned this behavior and one of five expats mentioned it. This was the greatest divide between local and expat that arose from my collaborative ethnography. The act of picking up after others on a small-scale individual level appears to be instilled in the local population that participated in my study. It is noteworthy that all local participants in the collaborative ethnography were under thirty years old and had at least a high school education if not an associates or bachelors degree. This could indicate an ongoing generational shift in waste-related perceptions and practices. Adrianna noted a leisurely evening stroll with her mother and the waste they found on the beach (e.g., wrappers, straws, gum, boxes). Another local participant stated that she saw

plastic bags along the road that she picked up while walking home. As noted previously, expats are often involved in organized cleanups. The juxtaposition of these two similar but different acts is interesting. Kottak (1999) reminds us of the importance of not viewing the environment and humans as individual units of analysis. We exist in current space and time with the environment in particular historical contexts that have significance for our relations, perceptions, and practices. There is a very clear tie between historical and modern day capitalism and the waste we generate. These contributing factors provide understanding for the space in which humans and the environment interact within presently.

The next theme that arose from this project was ways in which participants reuse and repurpose plastic items. When shopping in San Pedro at any store you will be given a black plastic shopping bag for your purchase no matter the size or quantity of the things you are buying. When planning for my fieldwork, I was equipped with six blank notebooks to give to participants in this project. Since there turned out to be several more people interested in participating, I had to buy more. On a trip to town, I went to an office supply store for three small notebooks and as I was paying they began to place them in a plastic shopping bag. I quickly declined and put them in my backpack to take home. Since these bags are distributed at almost every business on the island, many people have a surplus of them. It is common practice to use these bags a second time as trashcan liners. Several months after my fieldwork was complete, I was browsing an online Facebook group concerned with San Pedro trash cleanup when I came across an individual who expressed an obstacle to refusing these bags. She stated that in an attempt

to be more eco-friendly, she had begun refusing plastic shopping bags while in town only to realize after a few days that she no longer had anything to line her trashcans with and had to go buy more plastic bags to fulfill this need. This is a perfect example of a barrier that may arise when people attempt to make more sustainable choices.

Some other reusing or repurposing behaviors were cleaning to-go containers (plastic and Styrofoam) and using them as in-home, to-go containers when friends or family wanted to take food home from an event or get together. One individual on the island who operates a food delivery service uses plastic containers that are returned to her by the consumers of her food. This appears to be a closed-loop system with little to no waste. Another theme that arose with this topic was the misuse of waste-related terms.

Many people confused recycle, reuse, or repurpose. All nine participants did this at some point throughout their journal and misuse of these words occurred twenty-five times in total. One participant referred to the lunch service mentioned above and how she "recycled" these containers each day, when in fact she sent them back to the business operator for reuse not recycle. In another instance, a participant discusses how she forgot to bring her reusable water bottle to work and uses the terms reuse and recycle interchangeably when discussing the plastic bottle she ended up purchasing. These concepts of reuse and repurpose relate to ideas of value. Machado-Borges (2017) examines how class, gender, age, and race are reflected in the ways an individual values an item. Along with these distinctions, it is also crucial to examine socio-economic standing and access to resources. These individual attributes reflect how an individual will determine the value of an item and its potential temporality within their life. From

this data, it is clear that many plastic items in San Pedro do get a second chance at life through reuse or repurpose which extends their temporality. However, this shift does not appear to curb the amount of plastic used in the first place. The collaborative ethnography project provided very interesting insights into how individuals viewed their consumption and waste management practices, as well as how they related to these behaviors in the community around them.

### **Personal Experience**

During my time in San Pedro, I also worked to document my experiences with plastic and experienced many of the same themes that were mentioned by the participants of the collaborative ethnography. I came to the island equipped with several items I hoped would mitigate my personal plastic consumption. These items were two reusable bags, two small bulk/produce bags, one 32oz and one 16oz mason jar, cloth napkin, glass straw and cleaner, metal to-go container, metal French press, two charcoal sticks to filter water, a metal water bottle, and a set of bamboo utensils. I had ambitious plans to avoid plastic as much as possible while in San Pedro. These plans were thwarted on my first night on the island when I went to dinner after a long travel day and forgot my metal to-go container to take home leftovers. My attempt to avoid plastic continued in this manner for the next several weeks with many triumphs and also many blunders.

One barrier I knew I would face was with drinking water. The tap water in San Pedro is said to be potable by Town Council and Belize Consolidated Water who operates the water desalinization plant on the island. However, the majority of the people on island, locals and expats alike, purchase bottled or bagged water and only use tap

water for showering and brushing their teeth. In my past trips to the island, I bought several one-gallon jugs of water per week as my drinking supply. Prior to fieldwork, I briefly researched how to purify water and decided that I would boil and then use charcoal sticks on the tap water so I could avoid buying my water in plastic. On night one I boiled water, then introduced my sticks, and waited as long as I could until I was thirsty and poured a glass. My purification system may have made my water safe, but it still tasted faintly like the sea. I quickly admitted defeat and headed out at 11 pm in search of water. A friendly security guard pointed me in the direction of a store open late and I again bought my one-gallon plastic jug of water. The island does have a closed-loop system for purified water. Five-gallon jugs are sold at many stores. These five-gallon jugs cost an initial \$20 and when you return the empty it cost \$5 for a refill. However, this presented a problem, given my limited upper-body strength and bicycle transportation. After a few days, I was able to find a way to have a jug delivered to my door, although this did not seem to be a common practice. The transportation of five-gallon water jugs was also something noted by a participant in my collaborative ethnography. She stated that, while her boyfriend was out of town she was unable to carry a new full jug up the flight of stairs to her apartment (this was also a barrier I faced being on the second floor of my apartment complex). This led her to purchase the one-gallon jugs which are not accepted back for the refill exchange program.

Like my participants, I also experienced feelings of fear, guilt, and regret concerning my plastic consumption. As Adrianna noted earlier, she had a fear of judgment surrounding reusable containers for to-go food. Over the course of my

fieldwork, I became a regular at a lunch spot south of town that had daily vegetarian specials, which is not common on the island. After the first day or two of asking them to put food in my metal to-go container, all fear of judgment was gone. In fact, they gave me weird looks when I forgot my metal container at home and had to use one of their biodegradable clamshells for to-go food. These times where I forgot or was not prepared I also experienced the guilt and regret that other participants felt. Upon returning to the island after a few months, I found my favorite lunch spot had closed and I had to navigate the fear of judgment all over again at a new vegan restaurant that had opened. However, after the initial weird look handing over my metal container they ended up refunding my money and gave me lunch for free, stating that they supported zero waste alternatives. During my fieldwork, there were several instances where I forgot my to-go container, was given a straw in my drink, or bought food items from the store wrapped in plastic. However, I did take the initiative to mitigate this when I could.

Another barrier that I found was the cost of items and the packaging in which they came. While shopping for laundry detergent one day, I found that the local brand was seventy-five cents and packaged in a thin plastic bag while a brand name cost seven dollars was packaged in a cardboard box. The cost difference of the non-plastic item makes this a barrier for many people. This was true for many products in the grocery store.

Another theme that collaborative ethnography participants touched on was picking up other people's trash. This was something that I struggled with for the several weeks I conducted fieldwork. In my first week of fieldwork, I took several long walks to

get my bearings. During these walks, I picked up a lot of beach trash. As my schedule became busier with interviews, my internship, and connecting with islanders, I found myself walking past more and more trash. I felt feelings of guilt at times but tried to reconcile these feelings with the reality that I could not pick up every piece of trash I saw, otherwise I would spend all day doing it. The majority of my personal experiences on the island had direct correlations to the experiences islanders had in mitigating plastic consumption and navigating the waste management system in San Pedro. The final topic brought up by most research participants was the need for further education on all topics surround plastic consumption, proper waste management practices, and what this means for overall island conservation.

### **Education and Curriculum**

The desire for increased education was expressed frequently. Of my sixteen formal interviews, ten of them mentioned the need for more education. Most participants voiced their opinions that there was a lack of education on garbage and proper waste management practices. They discussed the need for children as young as preschool age to have lessons on garbage incorporated into their classroom. Some participants were already aware of garbage education in schools. One participant noted that the private school on the island had policies surrounding single-use plastics and lunchtime. Students were required to bring their lunches in reusable to-go containers. However, this is not the norm on the island and the small, expensive, private school is the only one who has this policy. Several other forms of garbage education were discussed. One local preschool has a song, teaching children not to litter. Other schools host events like Reef Week and

Science Fairs where children can explore the topics of garbage and how it affects the environment. The overall consensus from interview participants was that they wanted to see a heavier focus on garbage education in the school settings. It was also noted that high school needs to be mandatory and that there is a need for more schools on the island because many are functioning at capacity and there is no space for some island children to enroll.

While conducting this fieldwork, I was also actively participating in creating a garbage-related curriculum for the San Pedro Junior College (SPJC). This was an ongoing project with the BTIA and SPJC that had been identified by both as something needed and wanted for the school and community. For six weeks Julie (BTIA volunteer and Ph.D. in Education) and I met at the SPJC to read through syllabi of current classes and find spaces where garbage curriculum fit well. We brainstormed ideas together and did outside research. We ended with two curriculum components each, for fourteen different classes at SPJC. These classes included business communications, introduction to business law, microeconomics, hospitality marketing, tourism management, ethics and morality, cost accounting, conservation of the reef, communication studies, introduction to psychology, business management, production and operations management, college English, and computer applications (Appendix C). Within business communications, we created a brainstorming activity where students would work on using persuasive language to pitch a cleanup program while focusing on the four parts of successful persuasive writing, gain attention, build interest, reduce resistance, and motivate actions. Within microeconomics we had students explore the true cost of water in Belize. Their task was

to do a cost analysis of the different water options available on the island including shilling bags (twenty-five cent plastic bags of water), 500ml, one gallon, and five-gallon bottles. These new curriculum components were meant to stimulate students thinking surrounding all aspects of consumption and waste management on the island while also potentially sparking creativity in finding solutions.

These ideas were organized, typed, and presented to the school upon completion. During the early stages of this project we received some resistance from school administrators, it seemed that they were not as open to garbage curriculum as they or the BTIA initially alluded to. There were trust issues as seen through administrators not allowing us to take course syllabi off school property as well as a lot of resisting change. All curriculum components we created were meant to be suggestions for the school; however, in some cases, we were told that there was no way in which the topic of garbage would fit into a given course. Belizean History was one of these courses. From topics covered earlier of colonialism, identity, capitalism, and the globalization and movement of new products, this could be a perfect class to incorporate the topic of garbage and waste management. Although education seems to be at the forefront of everyone's mind when addressing the issues of garbage and waste management, there are still many barriers. However, I found that there were also many more garbage programs or general awareness happening in children's schools than most people knew about. This emphasis on education seems like a deflection away from adults and on to the children. Isenhour (2010) notes that topics of sustainability and action often focus on education but lack follow through in changes of policy from governments, which is where significant

change can stem from. As the government, organizations, schools, businesses, and individuals work together on garbage related education the hope is that we will see a generational shift that places the environment at the forefront.

### **Participant Observation Findings**

Lastly, my final participant observation findings are presented through two accounts of community events and one fieldtrip to see the garbage transfer station on the island. These instances provided depth to my work through experiential visiting and providing up to date information about community issues.

#### *For the Love of San Pedro*

*For the Love of San Pedro* was an event hosted by the BTIA to discuss the recent increase in violent crime on the island. It was held at the local high school one evening. Roughly 120 chairs were set up in the basketball court with extra seating in the bleachers along either side. This event was meant to give people a safe space to voice their concerns and frustrations with the rising crime rate. The executive director of the BTIA was in attendance as well as several police officers and government officials. Several speakers gave brief talks about their experiences and ideas on how to mitigate crime moving forward. No other audience members were allowed to speak during this time but comment cards were provided. BTIA organizers had voiced to me earlier in the day that they were concerned about this event getting out of hand because it was such a sensitive topic. From my observations, I estimated that two thirds of the people in attendance were expats and the remainder Belizean. Many of the speakers spoke about the changes in crime over the last few months and how violent they had been (e.g., shootings, stabbings,

robberies, and machete attacks). A local doctor expressed concerns about a lack of resources and how she was unable to treat the conditions that resulted from these very severe violent crimes. Speakers voiced their opinions on increased education and mandatory high school to keep kids busy and off the streets. They spoke about how these violent crimes were going to affect the tourism industry in which they all depend on to make a living.

When it came time for the government officials to speak, many in attendance felt that they used vague language and made no promises of change. The local police shared some statistics stating that crime rates had actually dropped in the last few years and San Pedro was currently experiencing a “balloon effect” that would soon subside. Mark Schuller (2012, 27) notes that inequality increases violence within a community. As noted previously, inequality is very prevalent within the varying populations in San Pedro. The evening concluded with the mayor stating, “tourism is everybody’s business and crime is everyone’s problem.”

#### *Belize Tourism Industry Association (BTIA) Monthly Meeting*

I was able to attend one BTIA monthly meeting during the five weeks I conducted fieldwork in San Pedro. I volunteered to take minutes for the meeting and also presented on the garbage curriculum project at SPJC along with Julie. This meeting was held at a local hotel and was attended predominantly by expats. The meeting recapped the *For the Love of San Pedro* event, discussed the installation of security cameras in town, overviewed the financials from *Lobster Fest* 2018, and debuted a new emergency rapid response organization. Of the hour and thirty-five-minute meeting, island garbage was

discussed for nine minutes. At the end of the meeting, membership was discussed and the need for a more diverse group was recognized.

### *Fieldtrip to the Transfer Station*

Finally, during my fieldwork I wanted to visit the transfer station, the site where all garbage formally collected on the island is brought and stored before being barged to the landfill on the mainland. Getting out to the transfer station is no easy feat, especially for someone who only has a bike as their transportation. It is located several miles south of town on the lagoon side of the island. Julie expressed interest in seeing it for herself and we arranged a golf cart drive down there one morning. On our way down to the site one cool morning, we ran into police and a roped-off crime scene in one of the local neighborhoods. It seemed early in the morning for something to have happened. We later found out that two young children had been playing with a firearm they found in their house and one of them was fatally shot. This event reiterates the struggles of inequality and crime on the island.

When we arrived at the transfer station we were met with is a large fenced off area and an unmanned guard post at the front. Two individuals were on site, one formally employed and the other not. We were shown around the area and allowed to ask questions and take pictures. There was a sign on the ground that dictated what items were accepted to the transfer station and those that were not. We learned that the employee on-site lived there because there was no guard and it was far from town making it difficult to live elsewhere. At the time the site was very well maintained, all trash was inside a warehouse in a large pile. The smell was only slightly uncomfortable once you

were inside. While attempting to ask questions of Esmeralda, I noticed a handgun on the floor. Esmeralda caught my gaze and quickly covered it with a black trash bag in her hand. This once again shows the issue of crime now intermingled with the issue of garbage on the island. The trip to the transfer station was very informative and provided context for both the formal and informal waste management occurring on the island as well as the sheer amount of consumption taking place.

These findings on informal waste management systems, feelings of guilt, acts of service, and general participant observation show the intricacies at play within consumption and waste management. However, they also provide a glimpse into the San Pedro community and how it operates on a daily basis. These findings provide hope that change is happening and will continue to, because individuals are dedicated to changing their own behaviors and the actions of the community as a whole.

## **CHAPTER SIX**

### **CONCLUSIONS**

My research in San Pedro provided an abundance of information about the waste management systems in operation. It also shed light on how the greater community understands and interacts with these systems. There was a divide between formal and informal waste management systems on the island and a divide in individuals' faiths in the effectiveness of these systems. My research included historical background for the country as a whole and the local community. I delved into concepts of colonialism as well the increasing capitalistic ventures of tourism. Through these lenses, I explored issues of identity, wealth disparity, social and racial positionality, and more. The most prominent take-away from my research participants was that they desired more education for youth on the island concerning proper waste management. However, I think another important take-away is that the social and racial divides on this island are prominent, and in order to create any sustainable solutions these divides need to be acknowledged and understood. Until these divides are appreciated by the people working towards change (e.g., organizations led by mostly expats, Belizean government), the island will not see the shift in consumption or awareness in proper waste management that it desires.

#### **The Anthropological Difference**

The discussion of environmental issues as seen through consumption and waste management is easily applicable to the physical sciences. Researchers can test water and soil to see the effects that garbage has on them. They can do assessments on how specific trash items, such as plastic, degrade within the environment. These researchers can use

their findings to make educated recommendations on how to better protect the natural environment. While these findings and recommendations are extremely important, it is also valuable to look at environmental issues through historical and cultural lenses. Anthropology lends a unique perspective to the conversation of consumption and waste management. While much of the world is focusing on physical science research to solve our environmental issues, it is important to consider varieties of human practices and the cultural background of people and places in order to craft sustainable solutions.

Prior to beginning my research, my community partners at the BTIA had only a vague understanding of what anthropology was. Since the completion of my fieldwork, they have a better grasp of how the discipline works to understand their community and the issues that it is facing. The community as a whole lacked an understanding of anthropology, and those who were familiar with the term often liken it to archeological practices. Within the local community, the term anthropology is typically used in connection with the many Maya sites throughout the country. This focus on archaeology as opposed to cultural anthropology is one that is very common throughout the world and contributes to the lack of understanding concerning anthropology's diverse fields. Although there was a general lack of understanding concerning cultural anthropology on the island, most individuals were very receptive to me, my educational background, and were open to having conversations.

Having a white American discuss social and racial divides and the lingering effects of colonialism on the island was rather out of the ordinary. However, I feel that these conversations and my research sparked something within the island community. As

progress continues to happen concerning consumption and waste management, as seen through the BTIA's continued projects, it feels easier to discuss sensitive issues. It also appears easier for people to step back and work to understand how others may have varying perspectives and views of the world. Although many people on the island still do not understand my background within anthropology they recognize that I am open to having complex conversations about this island, its history, and its diverse cultures. Being able to discuss the pressing environmental issues relating to consumption and waste management through the lens of anthropology will help in creating lasting solutions for the future.

### **Research Limitations**

While my anthropological approach was able to offer a new perspective to the issues being faced in San Pedro, my research still had several limitations. First, was time and financing. I only had roughly six weeks to complete my fieldwork. Another limitation was coming in to a community where I was an outsider and trying to find people willing to talk with me. Having the support of the BTIA helped and potentially hindered this. The BTIA gave me their member list and a letter of recognition, which helped me gain interviews with a handful of expat business owners. However, on the other hand when I shared with others my affiliation with the BTIA it had the potential to stop them from speaking with me because of their preconceived notions of the organization. Many people not associated with the BTIA, confused the organization with the BTB (Belize Tourism Board), which is a government entity, and as discussed there is some distrust in the government. Another limitation I faced was not being able to record

many interviews. Part of this had to do with distrust and also the laid back setting that most interviews took place in (e.g., outside). Although my research faced limitations I believe that I was able to collect sufficient and important information during my fieldwork.

### **Future Work**

I set out to understand consumption and waste management through the lens of the tourism industry on the island. My research questions focused on historical background, perception, and practice. I was able to gain information on all of these questions through my various methods. However, there is still much research that can be done on these topics. My research participants mostly consisted of individuals who owned tourism-related businesses. These individuals likely do not represent local population as a whole. From my research, it is clear that the waste management systems on the island are failing, and that consumption of plastic products is going to be a slow moving shift. Information that would be important to learn is how the majority of the local population understands and practices waste management and consumption. I suggested a project of this scale once, to have Belizean students go out into local neighborhoods and ask people their thoughts on the garbage piled up beneath their feet. I believe that the next steps for this project would be to go beyond the tourist clean zones and work to understand how this issue affects most of San Pedro's population. While there are many people within Belize and San Pedro who are working towards better waste management and a shift in consumption practices, I believe that the unique divides within

the community need to be better understood in order to create lasting positive change for the island as a whole.

### **Next Steps**

After working so closely with both the BTIA and the San Pedro community I want to emphasize the divide that exists between the two. The BTIA has benevolent motives to help create positive change in areas of waste management and crime for the island community. However, the majority of BTIA members are expats who often do not recognize their own privilege and differing understandings of the world. This has often led to members becoming frustrated and lacking in motivation. As the BTIA moves forward with their programs and initiatives it would be useful to broach the topic of colonialism, capitalism, and diverse social and economic standings. It would also be beneficial to create a more diverse member base when locals felt welcome. Solving the issues of consumption and waste management in the San Pedro community needs to be a conversation where everyone's voices are heard and valued equally.

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## **APPENDICES**

## APPENDIX A MOU WITH BTIA

Belize Tourism Industry Association  
in collaboration with  
Megan Shaw (San Jose State University, Applied Anthropology M.A. Program)  
Memorandum of Understanding

The purpose of this memorandum is to establish mutual expectations in the collaboration between Megan Shaw and the Belize Tourism Industry Association (BTIA). The signatures below show an agreement between the parties concerning the listed items.

Megan will assist the San Pedro chapter of the BTIA in their recycling program. This will include daily (Monday-Friday) meetings with teachers from 3pm-5pm to discuss and advise on the inclusion of a recycling component to their standing curriculum for 17 outlined courses.

When needed, Megan will also meet with Dianne Lawrence outside of set meetings to discuss and collaborate on the recycling project.

Megan will also attend community and BTIA meetings when needed, or when presence is requested.

Megan will begin to combine all of this information together into a working business plan that the BTIA will be able to add to as this project moves forward in the future.

The San Pedro chapter of the BTIA will assist Megan in finding office space, phone, and printing facilities, if needed.

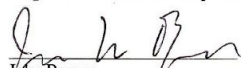
BTIA will assist in identifying and contacting prospective interview participants.

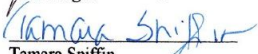
BTIA will help obtaining any relevant reports that may be needed.

Upon completion of fieldwork, BTIA will provide an official letter evaluating contributions to the research project.

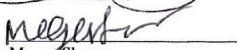
Upon completion of project and analysis, Megan Shaw will provide a copy of her project report to the BTIA.

Megan will retain ownership of all data and findings.

  
John Burgos

  
Tamara Sniffin

  
Dianne Lawrence

  
Megan Shaw

## APPENDIX B BTIA PERFORMANCE REVIEW



BELIZE TOURISM  
INDUSTRY  
ASSOCIATION

Dr. A.J. Faas  
Department of Anthropology  
San Jose State University  
July 05, 2018

Dear Dr. Faas,

Ms Megan Shaw has been dedicated to a dual-track internship in Belize. The first track has been her own research which we have coined Plastics in Paradise, using San Pedro Town, on the island of Ambergris Caye, as her research location. The second track has focussed on Ms Megan's participation with Belize Tourism and Industry Association (BTIA), a national non-profit association which endorsed her internship to further her community connections. This internship has kept Megan extremely active in our community and her research has informed her contributions to BTIA and its collaboration with the San Pedro Junior College (SPJC). As a Doctor of Business Administration specializing in Higher Education I have served as Megan's San Pedro BTIA mentor for this internship towards her Master Degree in Applied Anthropology. We have worked together almost daily in person and online. Megan has been professional, diligent and timely with all tasks put to her.

Regarding her research, Megan has worked within the cultural confines of our community. This means that she was not often able to get officially signed forms from her interview participants or permission to make recorded conversations, and sometime even taking notes was a challenge. Our island culture is, 'If I say yes, that's all you need' and 'I want your complete attention if I give you my time' and 'You don't need to take notes, just listen'; but people did agree to talk with her. Megan met at their offices, or local bars, a backyard mechanic's shop, an entry porch to a barge company, and even in and amongst the garbage and mosquitos at the San Pedro Garbage Transfer Station. She conducted 25 interviews, met weekly with individuals documenting their daily plastics usage (8-11 participants) and conducted several informal conversations to gain further information.

Ms Megan had hopes of also conducting surveys with our tourist population. Tourists were not receptive to the intrusion on their vacation time. Megan and I discussed this problem with Ms Tamara Sniffin, Chairwoman of the SP BTIA, and decided that Megan's time in Belize

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## BELIZE TOURISM INDUSTRY ASSOCIATION

better served with our local population. Tourists can be reached at a later date by internet, on their own time (via San Pedro Facebook page, Ambergris Caye Message Board, Bloggers, and the San Pedro Sun) to complete the surveys, should they still be needed.

The second track of Ms Megan's internship, the collaboration project between BTIA and SPJC, was adding two garbage-related curriculum components into each of 14 courses offered at the Junior College next semester. Megan and I worked together on this project and she also taught me how to use Google Docx for it. She easily learned the basics of curriculum development and developed each of the OPTION 1 garbage components herself. Her contributions are varied, interesting, student-focused and very appropriate for the Associate Degree programs of which they are now a part.

Initially, we at BTIA, had hoped that the garbage components would pull together and become a student-led business plan for large garbage removal and possible recycling. The goals held by the SPJC were to develop a San Pedro focus within the curriculum of courses for their Associate Degree Programs. The Associate Degree Programs are two-year part-time studies attended and taught by people with family and work commitments; leaving no one able to take the lead and spearhead the project further. Instead, the curriculum components took on an educational focus, with assignments informing the community of the garbage issues, raising awareness and aiming towards behavioral change and possible solutions for the garbage problem on this island.

We have now been informed by the Dean and Assistant Dean of San Pedro Junior College that all curriculum components developed by Ms Megan and I have been approved as transferrable from the five Associate Degree Programs to Undergrad Degrees at the both the University of Belize and the University of the West Indies.

Megan attended the BTIA anti-crime event, For the Love of San Pedro in June and our monthly meeting. She also volunteered to take the minutes and had them typed up for the Chairwoman by the next day.

I have enjoyed working with Megan and believe that her internship in Belize has made a difference in our community. We wish her the best of success in her endeavors and hope she returns to San Pedro in the future.

Dianne L. Lawrence, San Pedro BTIA Member  
DBA in HE, MA in Ed Ldshp (C&I)

Cc'd to:

John Burgos, President BTIA

Tamara Sniffin, Chairwoman San Pedro BTIA

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## **APPENDIX C SAN PEDRO JUNIOR COLLEGE GARBAGE CURRICULUM**

### SPJC BTIA Collaboration

Two-Option Garbage Components for each of the following courses:

1. BCOM 2199 Business Communications
2. BLAW 2014 Introduction to Business Law
3. ECON 2054 Microeconomics
4. TOUR 1232 Hospitality Marketing
5. TOUR 1211 Tourism Management
6. EMI 125 Ethics and Morality
7. ACTG 2030 Cost Accounting
8. TM 2033 Conservation of the Reef
9. ENGL 2130 Communication Studies
10. PSYC 1101 Introduction to Psychology
11. MGMT 1014 Business Management
12. BUSM 2103 Production & Operations Management
13. ENGL 1015 College English 1
14. CMPS 1004 Computer Applications

Developed by: Dianne L. Lawrence, DBA in Higher Education Megan E. Shaw,  
(Internship) MA in Applied Anthropology © 2018 San Pedro Junior College, BELIZE

### **Course: Business Communications BCOM 2199**

#### OPTION 1 – Using Media for presentations

One area where the large garbage removal plan could be incorporated into this class is as a presentation. The presentation listed on Week 13 is currently undefined. The class could be divided into three or four groups and present their plan for communicating the

large garbage removal plan project to the community. The groups could be split into (Social Media & Bloggers/ Reef TV & Radio/Fliers and Posters/Digi & Smart) Each group would provide some background on their communication channel and define who their target audience is (old, young, local, foreign, etc.). They would then present a plan for how best to approach this audience using their determined communication channel. This presentation could come in the form of PowerPoint, poster board, or incorporate some other visual aid. The goal for this presentation is to have students show their plan for information dissemination while also considering the different channels through which information can travel. The assignment could also include a brief two page write-up summing up all the information presented.

OPTION 2 Week 7 Persuasive messages – could be used in conjunction with presentations

The goal of our message is gain participants for the big clean up; including drivers (trucks, trailers, carry-all, golf carts to move people, etc)

Four parts of a successful persuasive message

- Gain attention – Garbage & dumping as the problem
- Build interest – display or describe the current condition of land, reef, animals & sea creatures
- Reduce resistance – together we can make a difference, numbers of population and vehicles on island.
- Motivate action – What can you do? What will it take? (1/2 day) When (to be determined). How to sign-up?

### **Course: Introduction to Business Law BLAW 2014**

OPTION 1 Student Contract towards accountability for waste disposal (self & home)

This course could have the students draft their own contracts. These contracts could outline an agreement to hold their classmates accountable for proper disposal of garbage; personally, at home & at work – if possible. This contract would include the obligations of students for working towards correcting the issues of garbage and waste disposal in San Pedro.

This assignment would be a good way to help students understand expectations when it comes to the large garbage removal program. It would also be a good way for students to delve deeper into the different components and verbiage needed to draft a business contract.

OPTION 2 Laws of Belize, as they relate specifically to San Pedro's garbage problem

Do we have a Littering Law? Or a Dumping Garbage Law? Explain answer

Local signs identify a \$500 FINE for dumping garbage? Is this a Law or a local by-law? Is it legal according to the Laws of Belize? Is it enforced or even enforceable? If yes, how? If no, why not?

Writing assignment:

Identify three (3) recommendations (according to the Laws of Belize or San Pedro) which may be used to prevent the dumping of garbage in San Pedro. To whom should these recommendations be addressed?

### **Course: Microeconomics ECON 2054**

#### **The true cost of water OPTION 1 - Example**

This exercise or lecture, can help expose students to the consumer behaviors and cost of buying water in San Pedro. By comparing the different water options in size and cost, from shilling water to 5 gallon drums students can calculate a cost analysis on the different options. It will also be important to take into consideration the different buy back options that could be a potential return on investment. The product list could also include a reusable water bottle as one of the purchase options. By comparing the different water options here in San Pedro students will be able to gain a better understand of the different individual consumer behaviors they are partaking in, and what it means on both a financial and environmental level.

Cost analysis: 25¢ - shilling water (? ml) \$1 – 500ml bottle water (in store price, \$2 restaurant price) \$2 - 1 gallon water at B&B (\$4 in grocery stores) \$4.25 – 5 gal water jug (at B&B, \$5 at grocery stores) 1 gallon of water = 4 liters or 8 – 1/2 liters bottles (500ml)

What is the price of plastic water bottles and bags? Is there room to eliminate the plastic before it eliminates our livelihoods? Provide suggestions - Bring your own bottle (discount for refill?)

#### **OPTION 2 - Assignment**

Students could look at the to-go container industry in San Pedro in order to determine the cost and benefits of the different options on the market. The products that could be included in this exercise are (Styrofoam, recyclable single-use plastic, biodegradable plastics, and bento boxes). It will be important to look at the supplier of these products and if possible find out what the cost is to produce these items. Then, students will want to find out what a business spends when buying these items and if that cost is passed down to the consumer. The exercise provides a holistic look at producers and consumers and the costs that go into behaviors and purchases. The exercise is likely to turn up that Styrofoam or single use plastic is the least expensive option, this is useful information in the long run to see how great the divide is between these products and more eco-friendly

ones. It could lay the foundation for petitioning government to incentivize eco-friendly products.

### **Course: Hospitality Marketing TOUR 1232**

#### **OPTION 1 Chapter 2**

For this section it would be interesting to ask students to collect photos from around San Pedro of garbage. These photos can be from tourist attraction, public spaces, or homes. They will aid in the discussion of “finding out what the customer wants”. It is clear when walking down the beach that some businesses (e.g., Ramon’s) do a very good job of keeping their property clean; while others (small condo complex), may not put as much time and effort into keeping their property garbage free. Juxtaposing all of the photos collected, can open a dialogue about the importance of a garbage free island to the tourism industry and customer wants.

OPTION 2: Chapter 11 – Destination Marketing Tourism and change for the new millennia, the global context and internationalism Technology has rapidly changed the world and San Pedro has done well keeping up. For example: ATM bank machines (most are international now) for access to money from any country Global phone service – GPS phones, pre-pay and plans Wifi – at most restaurants, bars, and coffee shops (Free)

Also – Niche Marketing for Belize Examples: weddings, yoga, scuba/snorkel, fly fishing, adventure tours, spas

How can GARBAGE-FREE vacations become a new niche market for San Pedro? What might it look like? Should businesses give away reusable containers? IE: Bento boxes (re-useable food take out boxes) with advertising on them

Tropic Air has Arctic/Yeti travel cups Who is the marketing segment?

### **Course: Tourism Management TOUR 1211**

#### **OPTION 1 - Chapter 6, Hospitality and Related Services**

The debate component for this week that discusses franchise hotels vs local hotels could be expanded to incorporate the topic of garbage. It would challenge students to identify which group (franchise or locally owned) would be more likely to incorporate eco-friendly policies. It will be important to examine access and financial resources as well as the drive for creating positive change. For example: Hilton may have more money to spend on biodegradable take-out boxes but a local hotel may need to find less expensive ways to incorporate eco-friendly practices, such as re-purposing plastic water bottles.

This conversation would also be applicable to Chapter 9 when students are examining the

effects on individuals, families, and society.

#### OPTION 2 – Chapter 11, Economic Impact

Belize's Meso-American Barrier Reef is threatened with its removal from the UNESCO World Heritage Site list. Why? Possibly because of over use, rapidly expanding tourism, lack of infrastructure to cope with garbage, water & sewage.

Explain the economic Ripple Effect caused by our garbage problem. (From advertising agencies to airlines, hotel staff to tour operators – who else? No jobs, no money, no circulation of money in our community)

#### Course: Ethics and Morality EMI 125

OPTION 1- The current syllabus covers many good topics but has no mention of ethics and morality in the natural environment. There are many different topics that can be discussed pertaining to the environment: garbage, offshore drilling, overfishing, excessive development, increased population putting a strain on natural resources. It would be useful to have a round table discuss/debate over what moral and ethical responsibility people have to protecting the environment in San Pedro. This discussion can identify different populations and how their responsibility may differ (locals vs tourists). It can also include foreshadowing to what will happen to the natural environment if people neglect this responsibility. The importance of the natural environment is stressed in several other courses because the entire economy of this island is tourism. There needs to be a connection made to the moral and ethical responsibility that people should have to environment if they wish to see the tourism industry be sustainable in the future.

#### OPTION 2 Weeks 5-6 Absolutes and Situation Ethics

Absolutes - is there such a thing when discussing garbage disposal? Is there a right or a wrong? Explain your answer

Situational Ethics - What **could** you do, what **should** you do and what **would** you do if...

1. You saw your classmate toss some litter on the ground
2. Your plastic bag flew off your bicycle seat on a rainy day
3. Your father/mother left a broken TV in a vacant lot near your home
4. Your best friend invites to throw garbage into the lagoon (just for fun)
5. You see a tourist or friend aim some garbage at a trash bin and miss

6. Your Uncle stomps out a cigarette butt on the side of road and walks on
7. The garbage Transfer Station is closed and you have a load of garbage to get rid of
8. Three little kids are kicking a soda bottle down the road in front of you (not a football game but just because it is there)
9. You see your dog (or a dog) knock over a neighbour's garbage bin
10. Your garbage bin has been knocked over in the night by wind or raccoons and made a mess all down the road

May be used for group or pair discussions, writing homework and/or role plays

### **Course: Cost Accounting ACTG 2030**

OPTION 1 Week 2 This course could incorporate the large garbage removal plan by forecasting what the costs of the program will be. Depending on how the program gets set up students could calculate collection, transportation, personnel, and potential reimbursement from selling recyclable items. This would provide the basis for getting the program underway and provide other classes with the background information needed to start setting up different aspects of the program. OR It could be interesting to look at the cost accounting of the current waste management system. Get statistics from the Town Council on what the current budget is for waste collection. See where money is going out; paying employees, gas, truck maintenance etc. by better understanding all of these costs students may be able to see where there is room for improvement within the system.

### **OPTION 2 - Weeks 7-8 Economic Order Quantity & Overhead Costs**

Costs of plastics - Restaurants, Deli & Lunch stalls, Bars, BBQ stands I.e.: straws, cups, to-go boxes, bags (The garbage is obvious)

Costs of cleaning and laundry supplies - Resorts, Hotels, Condo rentals I.e.: soaps & detergents (liquid, aerosol, powder), containers for supplies (plastic bottle, spray can, plastic sack, refillable)

Costs of Repair or Replace - for any of the above I.e.: TV, A/C, fridge, washing machine, dryer, hot water tank, bed, mattress, couch, microwave, boat motor, golf cart

### **Course: Conservation of the Reef TM 2033**

OPTION 1- Week 2- Water pollution foreign fluids Students will research the different types of fluid that are being leaked from garbage into the ocean (gasoline, kerosene, diesel, antifreeze, chlorine, cleaning products, paint, etc.) and research the effects these

pollutants may have on the ocean ecosystem. Students will conduct online research to find this information and must provide sources (scholarly, news articles, etc.) that explain their findings. This knowledge will help provide a base for understand the connections between garbage, proper disposal, and ocean health; as well as give students the opportunity to conduct independent research.

**OPTION 2 - Week 5 – Trip to Hol Chan Marine Preserve** Effects of Human Waste on the Reef - The non-viewable waste is as damaging to the reef as the garbage we can see. Did anyone pee in the water? If someone peed in the water, what is the damage? Now multiply that by the monthly or annual tourists, divers and snorkelers. Now what is the damage? What about the septic system at an older resort or hotel? Is the reef sustainable when human waste effects it? Is tourism sustainable Hol Chan? To be answered in the Trip Report.

Collect five (5) pieces of visible garbage big or small, in the HCMP (cigarette butts, bottle caps, plastic bags, straws, etc.) and turn in the instructor for acknowledgement and proper disposal.

### **Course: Communication Studies ENGL 2130**

**OPTION 1-Language and Society Week 10-11** (but this could really fit into many course weeks) Students will draft one commercial for reef TV in creole and one press release in standard English on the importance of keeping San Pedro clean. This covers the objectives of gathering information about current issues. It also looks at current social and political issues while having students practice their formal audience writing skills. I think it's important to also incorporate the creole aspect into this assignment because it juxtaposes the two different styles and cultures showing that neither is better than the other.

### **OPTION 2 – Weeks 12-13 Identify a Significant Issue – White Goods**

White Goods are large garbage items not disposed of correctly (appliances, construction waste, household goods, vehicle/cart parts, etc.). Find an illegal dumping site. Describe how you located it – what is your source?

How would you document the location? Or identify the ‘dumpers’? How and to whom can you report this dump site? Provide your own thoughts on ‘What next’

**Compare and Contrast – 20 years ago and Present day** Focus on the increase of garbage or waste as the island has developed

**Topics:** Our roads and traffic Our reef and beaches Construction and building Grocery stores and food availability Hardware stores and supplies

Assignment could be written or oral, photo presentations may be useful.

## **Course: Introduction to Psychology PSYC 1101**

OPTION 1 Week 11-12 When students are working to understand the changes that happen between childhood, adolescence, and adulthood it would be interesting to incorporate in the lifespan that a piece of garbage goes through. For example, the behaviors that a child has, i.e.: throwing their shilling water bag on the floor may change as they go through adolescence and learn that that behavior is looked down upon. A story can be told by looking at the behavioral changes during a person's lifespan and the lifespan of this garbage item. The behavior of a child that may last 25 seconds compared to the lifespan of the shilling bag after its used is alarming. These lifespans and the interactions that we have with our products is a very relevant topic in the world of psychology.

OPTION 2 – Weeks 7 & 9-10 Sensation & Perception / Learning & Cognitive Processes Apply these psychological concepts to the issue of Garbage on San Pedro. Where do first impressions' come in (attitude, emotions)? What might they be? What is the 'learned behaviour' behind dumping garbage? What motivations promote behavioural change (so garbage is disposed of legally)?

For pair share, group discussion, and/or debate

## **Course: Business Management MGMT 1014**

OPTION 1 Weeks 5, 6, & 7 Students could examine the role of corporate social responsibility in businesses through the lens of garbage. The assignment could be 500 - 800 words where students express their thoughts on what CSR might look like from a business management standpoint as well as the role of a potential whistleblower within the San Pedro business community. This will help students define what their role as a business person is towards keeping San Pedro clean as well as what potential regulations could look like.

OPTION 2 – 500-800-word Writing Assignment (Introspective including Parts A & B)  
Part A (Introduction) Identify your preferred business style and job/career. Now forecast it to "Where do you see yourself in 5, 10 or 20 years'.

- Leadership

- Management

- Entrepreneurial What job will you hold? With what kind of company (In San Pedro or not, Private business, Resort, NGO, government, international etc.)? Part B (the main focus of the assignment) In your future job, with your future company and your preferred business style – how would you handle garbage disposal? What plans might you implement (training, recycling, sponsorship, regulations/rules, incentives or your ideas)?

### **Course: Production & Operations Management BUSM 2103**

OPTION 1 Students could analyze the current recycling efforts on the island and work to create a more efficient work flow. They would need to consider all stakeholders and balance the needs and the wants of these individuals or organizations. By creating this workflow, all the small efforts in recycling could come together to have a greater impact in dealing with the issue of garbage in San Pedro.

OPTION 2 There are 10 garbage collection routes serviced by SPTC; San Juan, Boca del Rio, San Pablo, Boca Ciega, Esmeralda, San Pedrito, San Mateo, Alta Mar, Escalante, and the DFC Area)

In this class students could create a plan for a potential pick up location on each route where large garbage (white goods) may be collected before removal.

The plan might also have students define the process for pick-up, sorting, transportation, and defining what falls into which garbage category (plastics, metals, copper, household waste, cardboard etc.). This would help to lay the groundwork for getting this program up and running.

### **Course: College English 1 ENGL 1015**

OPTION 1 - Weeks 11-12 Narrative Essay Students could craft a narrative essay based on a story told to them by an elder on the island. This could be a family member or someone else in the community who is one or two generations older than the student. Students will ask this person to tell them a story that involves how garbage has changed over time on this island. After hearing this story students will then write 500-800 words in a narrative format to express said story.

OPTION 2 - Weeks 15-16 Poetry Write a poem Thinking of music may assist students with identifying a type of poetry to select. If students are familiar with Hip Hop, Reggae or Rap there is type of poetry to match. Similarly, Country & Western music and romance songs match another type of poetry.

The difference between each type of poetry is based on the format, rhyme scheme and subject matter. Research and choose a type of poetry (i.e.: limerick, Haiku, epic, rhyming, narrative, free verse, sonnet, ballad etc.). Your research should inform you of the rhythm, beat pattern, number of lines, and style or content for a poem.

The subject matter for this topic could be the theme of garbage as a Current Issue (causes, issues, solutions and/or suggestions). What is the message? Does the form/format follow the chosen type of poetry? How? Student assessment could be part of the evaluation (1-4 Likert scale). Possibility of having a chosen poem/s published in the SP Sun.

### **Course: Computer Applications 1 CMPS 1004**

OPTION 1 - Weeks 3-5 Computer Searches Introduce students to different types of

advance searches on the internet by having them explore Google Scholar. <https://scholar.google.com/>

The instructor could explain how to access Google Scholar as well as how it differs from typical internet searches. By understanding what a scholarly article is and where to find them students will be better prepared for advance research moving forward in their educational careers. After the benefits of Google Scholar are explained students will be given time to explore the site.

Students will be given a set of 'keywords' (Belize, garbage, waste management, recycling, environmental protection) and asked to explore google scholar using these words. The assignment will then have the students list three (3) articles with citations (author, date published, title, journal) in whichever format the instructor would like to used; APA, MLA, Chicago, etc.

Students will also provide a brief explanation about each article (3-5 sentences) to share with classmates and locate via the citations. This assignment will show that students understand how to navigate the site and learn the differences between scholarly articles and basic web search results.

OPTION 2 - PowerPoint Presentation Using a minimum of 5 slides, with images and text, students could develop a commercial for Reef TV's Public Service information channel. Garbage is the theme. Possible topics could include:

- 🎬 Current state of illegal dumping (contrast with the desired state of proper garbage disposal)
- 🎬 Promote participation for Large Garbage Clean up days (Date - yet to be determined)
- 🎬 Promote proper disposal of White Goods (Large Garbage)
- 🎬 Inform our community of existing efforts to eliminate the garbage issue
- 🎬 How every vehicle (and driver) on this island can and could/should be used for Large Garbage Clean up days
- 🎬 Other

## **APPENDIX D SINGLE-USE PLASTIC BAN PRESS RELEASE**



**GOVERNMENT OF BELIZE**

**Ministry of Agriculture, Fisheries, Forestry,  
the Environment, Sustainable Development and Immigration,**

**Ministry of Economic Development, Petroleum, Investment, Trade and Commerce**

**Ministry of Tourism and Civil Aviation.**

**JOINT PRESS RELEASE**

**Phasing Out of Single-use Plastic Bags and Styrofoam and Plastic Food Utensils**

*Belmopan, March 20, 2018.* The Ministry of Fisheries, Forestry, the Environment and Sustainable Development, the Ministry of Investment, Trade and Commerce, and the Ministry of Tourism led a collaborative taskforce comprising the Department of the Environment, Customs Department, Beltraide, Directorate General of Foreign Trade, and Solid Waste Management Authority to advance a proposal to Cabinet to reduce plastic and Styrofoam pollution through the phasing out of single-use plastic shopping bags and Styrofoam and plastic food utensils by April 22, 2019. The proposal was approved by Cabinet at its sitting today, 20<sup>th</sup> March 2018.

The phasing out of plastic shopping bags and Styrofoam and plastic food utensils, such as clamshells, flat plates and cups, is a necessary pollution control measure to protect the terrestrial and marine environment from harmful plastic contamination. Biodegradable alternatives to the plastic and Styrofoam products already exist on the Belizean market in the form of shopping bags, clamshells, coffee cups and plates manufactured from plant-based materials.

Plastic shopping bags and Styrofoam clamshells are used by the average person for only a few minutes before they are thrown away where they can last for decades in the landfill or as litter on the side of highways, in rivers, along coastlines and in the sea, causing harm to wildlife and fishes vulnerable to choking on plastic pieces. The annual clean-up cost of this pollution is considerable and is borne by volunteers, government and civil society groups. In the municipal waste stream, plastic and Styrofoam comprise about 19% of the volume, and therefore 19% of the cost of national solid waste management.

Globally, plastic and Styrofoam pollution is a major concern. Large floating debris piles have formed in the Caribbean Sea and other major water bodies. These international waste debris are not only difficult to track, as they migrate with ocean currents, but they are prohibitively costly to clean up, some ending up on the Belize Barrier Reef. With the second largest barrier reef in the world, Belize is doing its part to reduce marine pollution and protect the natural environment that is the foundation of our vibrant tourism industry.

[END]

*For more information contact:*

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*email: ceo.sec@environment.gov.bz*

**APPENDIX E ARTICLES IN SAN PEDRO SUN NEWSPAPER**

<https://www.sanpedrosun.com/education/2018/07/30/sp-btia-student-intern-work-incorporate-garbage-issues-spjc-curriculum/>

<https://www.sanpedrosun.com/conservation/2018/08/12/us-masters-degree-student-researches-plastics-paradise/>

<https://www.sanpedrosun.com/community-and-society/2019/06/14/caye-international-bank-hosts-children-from-samuel-haynes-institute-of-excellence/>

## **APPENDIX F SEMI-STRUCTURED INTERVIEW CONVERSATION GUIDE**

- 1) Tell me about your business
  - a. How long it has been around?
  - b. What is the size of it?
  - c. Whom do you employ?
  - d. What is your role within the business?
  - e. What are the goals and motivations of the business?
- 2) Does your hotel or business have a policy on plastic products?
  - a. If yes, what is it?
  - b. If no, why do you think that is?
- 3) Do you believe plastic consumption driven by the tourism industry is a current issue in San Pedro?
  - a. Have you noticed a change in the last several years as tourism has increased (what, when, why/how)?
  - b. Do you feel this affects locals?
- 4) What are your thoughts on the new government proposal to phase out single-use plastic and Styrofoam items?
  - a. Is it feasible?
  - b. Is it easy to comply with?
- 5) What types of plastics are used at your tourism-related business on a daily business?
  - a. Why were these products selected? (e.g., convenience, low cost, customer comfort)
- 6) Do you see any barriers to phasing out these items?
  - a. Is the timeline of April 22<sup>nd</sup> 2019 realistic for your business?
  - b. What do you think it would take to make this feasible?
- 7) What do you think the effects of this initiative will be on the tourism and your clientele?
  - a. What are potential negative effects?
  - b. What are potential positive effects?

- 8) Are you aware of any sustainable alternatives that could be used in place of your most common single-use plastics? Such as non-plastic, non-Styrofoam or recycled, recyclable, or reused items.
  - a. What are your thoughts on these options?
    - i. Cost
    - ii. Convenience
    - iii. Customer comfort
- 9) Are there any other solutions to tourism-related plastic consumption that you believe might work?
  - a. What kind of support or resources would San Pedro need to get this accomplished?

## **APPENDIX G COLLABORATIVE ETHNOGRAPHY INSTRUCTIONS**

## Barriers to Plastic Free Living in San Pedro, Belize

### Experimental Ethnography

Thanks so much for your interest in my research and in a plastic free Belize! This part of the methodology will look at the barriers someone might face when attempting to go plastic free in San Pedro.

Some guidelines: I want you first to take stock of the single use plastic items in your home already. Look in every room of your home (kitchen, bathroom, bedroom, etc.). Write down these initial observations. While doing this, note any alternatives that come to mind (e.g., buying fruit with a reusable bag).

Next, you will go about your normal activities and attempt to avoid as much single use plastic as possible (e.g. when grocery shopping, when eating out, when at social events). I am aware that not everything will be avoidable and these are good things to write down in your notebook. Write down what alternatives you find, when you could not find alternatives, and any other thoughts or ideas that come to you about this topic.

Tools: A notebook and pen will be provided to you at the beginning of study.

Set period of time: Depending on your availability and mine, we will set a time period for you to record your findings lasting between 1 week and 6 weeks.

Two meetings: We will set an initial time to meet to discuss the research and for me to present you with your materials and consent form, after the agreed-upon time for your research is up, we will set a second meeting for me to collect your notebook and go over it with you.

Consent form: You will need to sign a consent form for this research stating that the information you are collecting will be the property of the researcher (Megan Shaw) and that no names will be used in this research, so your input will remain anonymous.

I will be conducting this auto-ethnography myself, so should you have any questions, please feel free to contact me at any time through:

Facebook messenger

Email

WhatsApp