Chapter 9

Cane and Consumerism: Nineteenth-Century Sugar-Growing at Lamanai, Belize

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This chapter presents archaeological research focused on the nineteenth-century British plantation settlement at Lamanai, Belize (known in the nineteenth-century as Indian Church). The analysis centers on technological dialectics of consumption and aims to highlight similarities and differences among discrete contexts. Our study utilizes nineteenth-century material recovered at Lamanai since the 1970s and seeks to elucidate techno-productive aspects of historical, cultural, and socioeconomic convergence or connectedness among feature/activity areas within the larger plantation householdii. Owing in large part, however, to the oftenclandestine nature of British activities in Belize for a significant period of post-contact history, little is known about the eighteenth and nineteenth centuries in the northwest part of the country. To remedy this, the project's focus on Lamanai and Northwest Belize aims to answer questions regarding how life at this particular site was structured materially, spatially, and socioeconomically during the 1800s. This project has, thus far, been focused on 1) analyzing previously excavated nineteenth-century materialsⁱⁱⁱ, 2) recovering/analyzing new data from areas of known British activity, 3) researching the documentary record, and 4) promoting nineteenth-century focus and recovery at Belize sites more generally in order to create a comparative data collection.

An understanding of technology and tradition –at variable scopes, scales, and standpoints – plays a key role in interpreting the structure of lifeways at colonial-period sites. At the global scale, the industrial revolution (1750s) introduced production and distribution-related technologies that facilitated export market growth of European wares unknown in earlier centuries. Increased production required large amounts of raw materials, which in turn necessitated greater numbers to work at industrial and extractive sites. Changes in the speed and quality of manufacturing both created and maintained regional and local markets for European products. Not only could objects and materials be more quickly produced and distributed, but European goods also –for the most part– became better crafted and often less expensive than they had been in the previous century, and ultimately entered regional and local economies at an increasingly exponential rate within all socioeconomic levels. Old World flora, fauna, and prepackaged consumables brought to the New World made their way into regional and local systems, along with the plates, bowls, cups, and pitchers used to serve such items. Time and energy previously expended in procuring wild foods or tending to house gardens could be refocused on the productive needs of the colonial industrial complex.

Although ratios of imported to locally produced artifacts can tell us that European products entered local markets, they are not enough to demonstrate why, where, and when certain materials appeared in regional and local economies. Price, availability, and performance characteristics must therefore be considered in tandem with the social and cultural repercussions of the entry of new materials into *in-situ* cultural, economic, and historical structures. For example, cooking and storage pots were heavy and subject to breakage during transit, so procuring such wares locally would be a financially prudent choice for colonial entities. Buying locally could, however, also introduce and ultimately embed colonists into local subsistence

economies, while at the same time create market economies for other imported materials.

Alternatively, choosing imported products over locally produced objects could create intraregional conflict between indigenous groups who had previously relied on reciprocal subsistence
economies. In such a case, the repercussions of the sources of materials had to be carefully
considered.

Colonial-era plantation and extraction activities left behind unique opportunities for archaeologists to study the ways in which variable groups created, inherited, maintained, and modified their respective lifeways and related technologies while actively living and working within a bounded space, and having variable access to technologies, objects, materials, and spaces. During the nineteenth century, power relationships between indigenous and European groups in Central America and Belize were undergoing rapid change driven by the increased commodification of labor after emancipation (1838), the hunt for natural resources not yet exploited by industrial enterprises, and the void left by the fall of the Spanish Empire in the Americas (see Hernández this vol., Sampeck, this vol.). Archaeological and historical investigations are clearly needed to add information inaccessible by any other means, such as the discrete material and social infrastructures of small-scale, colonial-administered enterprises, established to extract raw materials including mahogany, fruit, and sugar. Indigenous and European peoples, as well as other groups such as Chinese and Irish immigrants, postemancipated slaves and Maroons of African descent, and merchant-adventurers from the United States incorporated or rejected objects, technologies, and spatial practices differently, depending on time and place.

Little is known about the nineteenth-century activity at Lamanai, and to this end, the study aims to answer questions regarding how residential and industrial life was structured,

including, but not limited to, the relationship of Britons and Anglo-Belizeans with other groups such as the Ycaiche, Santa Cruz, Maroons and other pre-/post-emancipated peoples of African descent, Miskito, and Asians who may have provided labor at the settlement. Of great importance to the project are data centered on frequently performed and often mundane daily practices (Bourdieu 1977; Braudel 1981; Hodder 1991a, 1991b, 1985; LeFebvre (1992) 2004) and behaviors (Schiffer 2010) of individuals and groups operating at Lamanai during the nineteenth century. We are interested in the material and documentary remains which allow us to elucidate the rhythms, (LeFebebrv 1992), connectedness, (Thompson 1966), and structures of daily life (Braudel 1979) as experienced by individuals and groups in the past. This study focuses on how technology and tradition, both local and colonial, affected behaviors and performance (socio-technic dialectics) and to determine whether or not there is observable variation between contexts at Lamanai that might give us clues regarding the day-to-day experience of different socioeconomic and/or culture groups who occupied the site during the 1800s.

The following chapter provides an overview of the project's theoretical and methodological considerations, a discussion of the raw archaeological data, and an interpretive synthesis that includes comparative site data and case studies. Even though the study data span more than thirty years of recovery, very little research has focused on the nineteenth century at Lamanai thus far. The archaeological and historical records have elucidated much about the nineteenth-century plantation settlement, but the data have also proved frustratingly oblique with regard to intra-site variability among known British colonial activity and habitation areas owing to the homogeneity of British imported goods recovered at the site. The most recent phase of archaeology at Lamanai is therefore a foundational effort, which aims to set the stage and narrow

the research foci for future historical-archaeological studies at Lamanai and more generally in Belize.

Historical and Geographic Context

Lamanai is a site in the southern Maya Lowlands, located on the western shore of the New River Lagoon in the Orange Walk District of Belize, and is categorized as a subtropical to tropical environment. The site is situated on shallow limestone soils within a lowland broad-leaf, moist forest. The region is known for its biodiversity and hosts more than 150 species of mammals, 540 species of birds, 151 species of amphibians and reptiles, nearly 600 species of freshwater and marine fishes, and 3,408 species of vascular plants (Belize Tropical Forest Studies 2012:1). Lamanai is located in an area of moderate flood risk, and high waters are moderately likely to have disturbed archaeological deposits located on or near the lagoon ridge from time to time. Direct access to the New River has arguably been one of the reasons for the site's continuous occupation for more than three millennia.

Lamanai was settled by the Maya long before the arrival of Spanish and British colonists, but the culture and identity of the people who lived at Lamanai over the centuries almost certainly fluctuated. Radiocarbon dates point to occupation activity as early as ca. 1,500 B.C. (Metcalfe et al. 2009; Rushton et al. 2012). The settlement seems to have been active as a political and economic center by the Middle Preclassic (900 to 400 B.C.) and occupation continued—albeit at varying intensity—until the mid-seventeenth century, when Spanish influence was waning and at which time Maya population levels were significantly lowered owing to the effects of European diseases (Graham 2011:107-109). Throughout its history, Lamanai maintained inland, riverine, and especially coastal connections, which made it a vital

hub for material and information exchanges even as other sites in Petén and the Yucatán peninsula lost power and influence (Graham 2011:43-45).

The official colonial history of Belize began when the "the coast was discovered by Columbus in 1502, and its early settlement is supposed to have been effected from Jamaica, by adventurers, who were attracted by the fine timber (logwood and mahogany) which grew on the banks of the Hondo and other rivers" (Butter 1879:29). It is highly unlikely, however, that the Maya had not been in contact with early, largely undocumented seafarers who explored the region during the latter part of the fifteenth century (Graham 2011:107-109) prior to the arrival of Spaniards in Central America and Mexico during the sixteenth century. With regard to the Belize missions, which include Lamanai, Spanish colonial history extended from about 1543-44 to 1707 (Graham 2011: 195-196, 203-204; Jones 1989:71, 1998:420), and it was around A.D. 1544 that Lamanai was first mentioned in historic documents (Jones 1989:71). The first Spanish church at the site was built sometime between 1544 and 1550 (Graham 2011:231-232); a second church was constructed north of the original structure, probably in the 1560s, although it possible that construction may date to the early seventeenth century (Graham 2011:236-238; Pendergast 1991, 1993). Spanish military control waned after 1638–1641, and there were times when Lamanai was reported to have been abandoned, although it is thought that a secular priest probably still visited Lamanai on occasion (Graham 2011:189-260; Jones 1989:214). The chapel of the second church was taken over as a residence by a Maya family at some point, and the disused churches served as sites for caches and even the erection of stelae (see Graham 2011:208-218 for full list of references; Pendergast 1986:5-6), which point strongly to continuity of occupation in the area.

Certainly by the eighteenth century, and in effect as early as the late seventeenth century (Graham 2011:239-260), Spain's economic hold on Belize weakened owing partly to Maya resistance but also to a century of "illicit [British] commerce that rolled over the shores of Spanish America..., which challenged Spain's commercial monopoly of its colonial dominions and ultimately weakened Spain's political control" (Brown 1928:178). One major location of contention between the British and the Spanish was the Mosquito Shore, which "together with Belize and Jamaica... formed an important triangular British power base, threatening the weakest link in Spain's New World Empire" (Dawson 1983:678). This weak link in effect became a commercial and economic void –for all but pirates, buccaneers, and merchants of illicit trade– and the British in Central America slowly began to band together to form extraction and trade monopolies that filled the void. By the late eighteenth century a few individuals and groups succeeded in informally monopolizing the market, trade routes, and local economies that had developed both in the interiors and along the waterways of Belize.

It is likely that British colonists arrived at Lamanai in the first quarter of the nineteenth century. However, no formal records of the occupation exist until 1837, when Hyde, Hodge, and Co. was granted "two hundred acres...under 'The Indian Church Plantation Grant' in order to plant sugar cane and build a sugar mill at the site" (Pendergast 1982:57) (Figure 9.1). The original owners declared bankruptcy in 1858 (Bankers Magazine 1858:933; Merchants Magazine 1858:343) and in 1864 the estate was purchased by the British Honduras Company Ltd., a conglomeration of original Honduran landholders, including Hyde, Hodge, and Co., and new money from a financial backer in London (Pendergast 1982:62). In 1883, the investor group and its holdings were purchased the Belize Estate and Produce Company (Pendergast 1982:66), which would become the largest private landholder in Belize over the next 100 years.

Insert Figure 9.1 Near Here.

Although the documentary record points to little more than a decade of sugar production at Lamanai and only one large-scale structure may have been constructed during the occupation, the archaeological record is replete with technologies, objects, and materials that attest to a formal, long-term commitment to resource extraction. Such extraction is likely to have included cutting logwood and mahogany along with the short-lived attempt at sugar production. The colonists built a sugar mill and imported medicines for use in an on-site apothecary (Rogers 1885:211), converted 200 acres of forest to sugar cultivation, and brought in a vast amount of imported British materials from food and drink to bricks and cement that were used to service the day-to-day needs of estate management and labor. The owners of the plantation must have had reason to believe –like many others imbued with a sense of colonial optimism— that the time, effort, and money spent constructing and equipping the space would prove profitable and sustainable –but we now know the outcome was quite different, at least for sugar production at the Lamanai settlement.

Research Setting

Although connected to extraction and mercantile institutions in the broader West Indies, nineteenth-century political, cultural, and economic organization in Belize was distinct. The land and its people had been notoriously difficult for both Spanish and British colonists to administer (Graham 2011), owing in large part to geographic obstacles, such as the difficulties of maintaining overland transportation infrastructures in a humid tropical environment. In addition, the region was populated by powerful, locally embedded indigenous communities whose members demanded large payments of cash and arms from colonial landholders (Rogers

1885:201-212) under the continual and real threat of attack from the local Ichaiche and Santa Cruz Maya Indians. The Caste War (1847-1901), as it is now referred to, was a reaction by Indigenous peoples "to expanding state authority and the shifts in macroregional political economy" (Alexander 2004:6) in the Yucatan. Creeping capitalism disenfranchised native farmers and subverted the long-standing power of Maya nobility over local resources and distribution, which in turn created tenuous relationships between colonists and indigenous groups, often resulting in violent ends. Furthermore, control of Belize had long been a matter of dispute between British settlers and the Spanish, a factor that is likely to have slowed efforts by European colonists to consolidate indigenous peoples into administrative and productive centers such as missions and plantations. Beginning in the first quarter of the nineteenth century, British privateers, buccaneers, and merchants of illicit trade who had once enjoyed relative autonomy from homeland governmental oversight had to contend with the more bureaucratic and structured nature of sanctioned –and thus monitored and taxed– enterprises. Adding to the relative disorganization of nineteenth-century colonialism in Belize and driven primarily by the abolition of slavery in 1838, were severe labor shortages and oscillating power dialectics among indigenous factions, labor groups, and Europeans.

Emancipation and a general labor shortage in Belize forced colonists to broaden their search geographically for workers and make organizational, material, economic, and political concessions in labor populations' favor in order to maintain and expand their enterprises (Andrews 1981; Armstrong and Hauser 2004:9-10). Plantation activities, such as farming, processing of raw materials, and general site management were labor intensive and required a large number of workers on location in order to produce and process enough materials to create surplus to make a profit. Habitation and subsistence-related resources, as well as the degree of

difficulty of assigned tasks, were not, however, distributed equally among plantation households inhabitants, a practice that created a socially and materially stratified local community.

Although the documentary record alludes to certain labor/immigrant groups active at Lamanai during the nineteenth-century, it is not yet clear who was at Lamanai and when; and the known record lacks details about who was doing what for whom at the estate during this period of time. Afro-Caribbeans (term used here very broadly) working in British Honduras had historical ties to the logwood industry and were familiar with the inland landscapes of Belize likely migrated to work in the emerging inland sugar industry, but there is currently no documentary record of these groups operating at Lamanai. Additionally, Chinese from Amoy (China) had been brought over to work during the plantation rush that occurred in the mideighteenth century. The documentary data contains an account of a visit with the "Chinese Christians in Honduras" by Castells, F. De. P. (1870:110). Castells (1870:110) remarked that the Chinese were doing well in Honduras and this "speaks well of their Christianity that, though it is five years since they left Amoy, and though they have no stated preacher to guide and instruct them, they have not lost their faith, in the strange land whither they have gone to dwell." Castells wrote of his visit with the Chinese congregation at Indian Church and noted that he "believed all the other Chinese on the estate were present" (1870:110). Indigenous and Afro-Caribbean laborers could also have come from other geographic areas as well, such as Barbados, Jamaica, Honduras, and Guatemala. However, identifying ethnicity other than British, Spanish, and Maya in the material record at Lamanai is difficult and must be approached with caution, because the objects and materials used by these individuals and groups providing labor for agricultural and industrial ventures were the same as those used by the British and Maya. To this

end, there are currently not enough data to make anything other than broad interpretations about what cultural or ethnic groups resided at Lamanai during the nineteenth-century.

Fundamental changes to the relationships between owners and laborers during the nineteenth century led to changes in the technological, material, social, and spatial organization of colonial settlements, which for the archaeologist are most likely to be visible at the singlehousehold or discrete activity-area level (see Hernández, this vol.; Sampeck this vol.). For example, a culturally or ethnically mixed labor force might be expected to produce variability in the amounts and types of faunal/food remains, ceramic forms and decoration, and to have employed a variety of health and hygiene practices, along with variable household spatial arrangements (Meyers 2012):139-161). As the technologies, objects, activities, and built environments of colonialism proliferated, however, the practices and behaviors created similarly organized spaces with increasingly ubiquitous objects and materials...in other words, colonial contexts began to look similar over time. However, archaeological methods focused on discrete spaces and variation between and among particular contexts can, however, shed light on the dayto-day realities and experiences of past peoples. Focusing on particular contexts in relation to others within a discrete landscape allows researchers to look at high-frequency activities, especially those activities related to consumption and foodways. Such practices are vital in the study of intra-landscape distinctions because consumptive behaviors are intimately connected to cultural, socioeconomic, and historical communities of practice; in other words, groups of people who interact regularly, sometimes over many generations, and tend to do things similarly, at similar times of the day or year, with similar materials, within a similarly organized landscape.

Study Data

In 2009, the total assemblage of previously excavated nineteenth-century artifacts associated with the British occupation at Lamanai was analyzed (Mayfield 2009). Seven feature/activity-area artifact and specimen concentrations were identified as robust enough for further analysis during the 2009 study (Table 9.1), of which four (the sugar mill, residential feature N12-30, The Citadel, and the Spanish Church Zone, and data recovered from excavations focused on the British colonial settlement conducted in 2014 [Table 9.1 and Figure 9.2]) are discussed here.

Insert Table 9.1 Near Here.

Insert Figure 9.2 Near Here.

Most of the previous archaeological investigations at Lamanai have centered on Maya and Spanish contexts, which generally lie beneath or apart from the nineteenth-century materials. The British-era objects, when encountered, were collected and stored for future study, but because the excavation teams varied over a span of approximately thirty years, the assemblage as a whole necessarily has issues related to recovery and spatial control simply because very few studies focused on the British occupation. As a result of the substantial size of the assemblage, however, a picture of day-to-day life at Lamanai during the nineteenth century has begun to emerge and future work will benefit from new questions raised during the study.

Of the 7,350 individual artifacts in the overall assemblage, 89 percent are either from surface collections or can only be traced to a feature and its surrounding activity area.

Nevertheless, the data are sufficient to permit establishment of relative feature/activity-area occupation dates and support preliminary, limiting observations about what kinds of activities

were taking place and where. Even with the aforementioned recovery issues, the data clearly reflect the presence of imported and local technology and materials associated with day-to-day behaviors related to consumption such as cooking and eating, health and hygiene, and recreational ingestion (e.g. alcoholic beverages and smoking pipes) (Figure 9.3). Although few artifacts are useful for absolute dating, there are substantial amounts of ceramics^{iv}, which have been used to establish mean ceramic dates for seven feature/activity areas and general surface collection, as well as to establish a median site occupation date (Table 9.1). A curious aspect of the assemblage is the small amount of imported British cookware and serving ware, which comprises stoneware, yellow ware, and coarse earthenware vessels. The lack of British cooking and storage vessels suggests that suitable alternatives were readily available from a local Maya source. However, the high frequency of Maya ceramics (from cultural transformation, e.g. 3,500 years of disposal concentrations, general scatter, and construction fill) and the overall homogeneity of imported goods within the archaeological record has, thus far at least, obscured key nuances of the technological dialectics between what are likely to have been contemporaneous local and British wares and forms within discrete contexts. Intra-site variation is observable within the assemblage, but the current data shed more light on the socioeconomic (e.g. labor v. owners/supervisors) make-up of temporal, behavioral, and spatial groupings at Lamanai than on socio-cultural or ethnic group specificities.

Insert Figure 9.3 Near Here.

Household-Level Technological Dialectics of Consumption:
Theoretical and Methodological Considerations

Clearly, the recent past informs our present, which makes the study of colonialism a pursuit worthy of cautious, systematic investigation (Hodder 1991a and 1991b) as well as reflexive, ongoing refinement and active discourse about who owns history and how the past should be studied and interpreted (Little 1997; Orser 2010; Sahlins 1983; Shackel 2001; Trouillot 1995). Historical archaeologists have the unique opportunity to "give voice to those who were muted by the colonial system and counter the long-standing legacy of colonial ideology that categorized the colonized as uncivilized and unworthy" (Little 2007:54). Because race, ethnicity, and gender are social and historical constructs expressed through practice and behavior, "it follows that [these] difference[s] [are] created through processes that are discernible in the archaeological and documentary record." (Epperson 1999:159; Delle et al. 2011). Studies of race, ethnicity, and gender can, however, be problematic because terms such as "race" or "ethnicity" or "gender" are "highly mutable, often situationally defined designation[s]" (Orser 1999:663). Difficulties in reading ethnic, racial, economic, or gendered difference into the material record do not mean that there are no clues to the relationships between people, technology, objects, and space within the archaeological and historical records (Beaudry et al. 1996; Joyce 2001; Lightfoot et al. 1998; Voss 2008; White and Beaudry 2009). Technological, socio-economic, and cultural boundaries or distinctions in the form of objects, materials, and spatial organization (between and among groups) in particular contexts have been "demonstrated to reliably assess and explain social issues such as power relationships and questions of gender, age gradation, diet and health, and economic contexts" (Armstrong and Kelly 2000:375). Assemblages recovered from discrete contexts, if considered carefully alongside other lines of evidence, may elucidate unique or historically persistent cultural, symbolic, economic, technological, or aesthetic practices and behaviors (Bloch 1953, 1961a, 1961b; LeFebvre 1992),

including reactions to material and socioeconomic structures of power and control as realized by groups operating within and among colonial spheres of influence. As communities of practice engage in production and reproduction over time, new technologies are added to the mix, but these technologies are not necessarily disruptive to historically situated lifeways. More often than not, technological changes are incorporated into existing spheres of activities. Adoption of new technology is dependent on, among other criteria - the usability, availability, and price of a particular commodity.

With cautious recovery and analysis, it is possible to study how and why European consumer goods and technologies were used in particular settings and to make contextual interpretations as to why, for example, certain colors, patterns, materials, and forms were chosen or were present as opposed others (Beaudry et al. 1996). Household-archaeological methods, which focus on discrete activity or residential spaces and minor variations in contexts, can shed light on the socioeconomic, material, and cultural experiences of particular individuals and groups by providing the framework for researchers to recognize local meaning-related patterns of behavior, practice, and performance (Alexander 1999; Beaudry et al. 1996; Voss 2008) in tandem with socio-technic processes (Majewski and Schiffer 1987 and 2009; Schiffer 2010) or "chaîne opératoire" (Leroi-Gourhan 1957) and variation in the technological styles of 'householding' (Eschbach this vol.). The colors, patterns, forms, and organization of objects and spaces directly correspond to the productive, economic, political, and technological realities of past peoples. At first, consumer products imported from Europe were brought to remote locations in order to recreate familiar homeland comforts, but as these products began to make their way into non-elite, enslaved, conscripted, and native contexts at local and regional scales, the meanings (internal and external) behind consumer accumulation necessarily changed (Mintz

1985). Colonial material culture may have originally "constituted the tangible embodiment of foreign power and possible long-term domination" (Orser 2006:66), but the injection of new objects often created new markets instead (2006:66) as European materials entered into variable spheres of manifest, symbolic, historical, and ideational production and reproduction.

Plantation Archaeology

Nineteenth-century plantations represent ideal locations for the collection, analysis, and interpretation of archaeological and material data (Andrews 1981; Armstrong and Hauser 2009; Delle 1992; Epperson 2001; Hernández this vol., Sampeck this vol.). For one thing, plantations were bounded, pluralistic spaces that were specifically designed for a particular function: to create profit by producing surplus. The infrastructure needed to achieve these goals required a financial and ideological commitment to the material and social aspects of an industrial venture because "social relations of power and privilege were often codified through the material world" (Nassaney et al. 2001:222-223). As Europeans colonized the globe, they constructed buildings and material environments that were familiar, functional, and used to facilitate capitalist goals by creating spaces for industrial and mercantile activities. Such environments also facilitated importing and acquiring local materials for the people who provided management and labor for the plantation household (Edwards-Ingram 2001; Hauser 2009; Hauser and Hicks 2007). Objects, materials, and technologies were not, however, distributed, chosen, or utilized equally, a phenomenon which provides clues to the active nature and use of particular spaces within the larger plantation household, and also indicates how individuals and groups, both socioeconomic and racial, were using space and materials (Delle 1992; Epperson 2001; Leone 1995:251;

Majewski and Schiffer 2009; Orser 1989 and 1988). Plantation landscapes, spatial organization, types of objects and technologies used, and the performance characteristics of materials used within these spaces would have been designed to communicate the power and wealth of the planter, but could also be used to project group or individual difference and/or simply adopted into non-European traditions (e.g. foodways/cuisine, medicine, hygiene) owing to ease of use, material attributes, or availability (Andrews 1981; Lightfoot et al. 1998; Mintz 1985).

The built environment of the plantation would have been a constant, unrelenting reminder of who ultimately controlled access to the physical spaces, foodways, technologies, and other material culture utilized by the individuals and groups providing on-site labor. This is not to say that the day-to-day realities of this landscape followed ideal colonial social and material protocols, especially if technologies were dependent on non-local replacement parts. Plantation owners, especially those in isolated areas, had little recourse against insubordination from labor or indigenous peoples and were usually heavily outnumbered by these groups. The planter could deny access to food or goods, but laborers could decrease profit by "malingering, feigning ignorance, sabotaging machinery or tools, running away, or outright rebellion" (Orser 1988:741). The day-to-day existence of both the planter, laborers, and non-employee local residents would have been extremely complex, but clues to local, variable practices and behaviors can be observed within the archaeological and historical records of colonial industrial contexts.

Household Archaeology

The study of households is the study of the "suite of habitual practices...that is broadly diachronic and comparative in scope" (Lightfoot et al. 1998:200) because "people repeatedly enact and reproduce their underlying structural principles and belief systems in the performance

of ordering their daily lives" (Lightfoot et al. 1998:201). By studying the internal use and layout of unique residential units and activity areas – the "minimum spatial unit of the archaeological record that has social meaning" (Manzanilla and Barba 1990:41) – in tandem with the materials, objects, and evidence of spatial organization located within and between these spaces (Parker-Pearson and Richards 1994:21), researchers can access the "basic organizational principles of individuals in action" (Lightfoot et al. 1998:202). Household archaeological data include technological, social, material, and behavioral elements, which when combined represent the "product of a domestic strategy to meet the productive, distributive, and reproductive needs of its members [see Carter and Merrill 1979]" (Wilk and Rathje 1984:618).

Household archaeology seeks to facilitate an understanding of discrete technological, socioeconomic, and cultural styles by utilizing spatial layout, materials, and objects located within specific activity areas and their associated features (Armstrong and Hauser 2004; Hauser and Hicks 2007; Pauls 2006; Wilk and Ashmore 1998; Wilk and Netting 1984; Wilk and Rathje 1982). The household is used as the primary unit of measure with which to survey and compare internal variables, such as foodways^{vi}, leisure activities, health and hygiene practices, sleeping arrangements, storage and disposal behaviors, and the locations, types, and frequencies of daily tasks (Braudel 1981; Lightfoot et al. 1998:201). Characteristics include house or feature layout, direction and number of entrances and exits, types and frequencies of activities taking place, and the separation from or connection to other households and activity areas (e.g. distance/closeness, pathways, roads, tunnels, bridges), including natural and environmental barriers and distance between activity areas. Barriers and "defensive circuits" (Parker-Pearson and Richards 1994:21) around and among activity areas, household groups, villages, and cities served to protect and preserve lifeways (ideological and material), but "they [also] contribute[d] to the very definition

of those [same] entities" (Parker-Pearson and Richards 1994:21). Of great interest to household archaeology are data centered on the "transitions between domains such as inside/outside, sacred/profane, female/male/[child], public/private, enemy/friend, elite/commoner, initiate/uninitiated" (Parker-Pearson and Richards 1994:21), roofed/open (Manzanilla and Barba 1990:42), new/old, and isolated/connected. Although there is infinite variation, household archaeology has been able to detect and analyze even very slight variations in material and contextual frequencies with a great deal of success.

Cuisine and Consumption at Nineteenth-Century Sites

Foodway and consumption data make up 79 percent of the study assemblage (Figure 9.3). Such evidence comprises one of the few data sets that can elucidate both internal meaning and external connections and also allow for a better understanding of specific technological dialectics (socioeconomic, cultural, historical) occurring within and between intra-plantation feature/activity areas. Foodway and consumption data – which include faunal elements as well as ceramic, metal, and glass materials related to cooking, eating, health/hygiene (e.g. bottled medicines vs. bush medicines), and recreational consumption (e.g. smoking and drinking) – are a key data set with regard to historical-archaeological analysis and work well in tandem with historiography and household archaeology (Wilk 1988; Wilk and Netting 1984; Wilk and Ashmore 1988; Wilk and Rathje 1982). The proliferation and well documented distribution of mass-produced consumer goods during the eighteenth- and nineteenth-centuries enable archaeologists to date occupations, connect producers with consumers, and explicate patterns of material, socioeconomic, political, and ideational experiences of past peoples. What people were consuming at the site and household level, as well as how they were storing, preparing, and

serving food and drink can shed light on the daily life, availability of materials (environmental and socioeconomic movers), technological dialectics, and broader social ideologies/unique histories of past peoples.

Although foodway materials make up the seemingly mundane and monotonous stuff of life, the types of activities associated with the data ultimately allow for some of the more meaningful and *specific* interpretations of daily life, practice, performance, and behavior within the archaeological record (Majewski and O'Brien 1987; Majewski and Schiffer 2009; Mintz and Du Bois 2002; Reitz 1994; Reitz and Honerkamp 1983; Scott 2008; Yentch 1990). Whereas socioeconomic, cultural, and racial distinctions are problematic lines of inquiry, faunal remains in particular can facilitate certain types of data comparison with regard to individual and group access to animal foods, including cuts and quality of meat, specific cuisine or recipes, and preparation or butchering preferences. What people ate, whether out of necessity, cultural practice, or simply individual taste, was an intimate and personal act, which operated conterminously with local and regional preferences and historic systems (Sahlins 1983). In addition, vessel forms serve as an extremely important interpretive component because African, indigenous American, and South Asian foodways are distinct from those of Europeans. In contrast with European food preferences, which included roasted meats and savory pies that required intensive supervision during preparation and construction of large ovens, other possible labor groups or indigenous populations at Lamanai would have utilized open fires or braziers to cook "one-pot meals, combining meat, vegetables, and broth, [which] had the advantage of stretching meat portions and, because they could be left simmering over a fire, required less work than roasted meat dishes" (Samford 1996:96). Soups and stews are a specific form of cuisine and not necessarily a sign of socioeconomic position, but if labor groups or indigenous

populations were active in certain spaces, it is likely that the locations will yield a higher percentage of bowl-shaped vessels, used for both food preparation and serving relative to plates and flatware.

Data Analysis and Discussion

Most British nineteenth-century structural remains revealed through excavation at Lamanai occur in the form of brick platforms and low walls. The single standing structure is the sugar mill, constructed in the 1860s. Further investigations may reveal, through the preservation of burnt daub, the presence of nineteenth-century features constructed of local perishable materials such as wood and thatch. Nineteenth-century construction at Lamanai appears to be limited, but this may reflect the fact that the major focus of excavation at Lamanai has been Maya monumental architecture and not British period remains. Based on present evidence, however, we suggest that the rarity of nineteenth-century construction is atypical in comparison with many profit-making enterprises in the New World in which both the land and the built environment, such as the plantation household, were divided into discrete and stratified zones of inclusion/exclusion, both industrial and social. As an interesting contrast with the lack of nineteenth-century standing architecture, the data gleaned during the study clearly show that the groups living and working at the Lamanai settlement during the nineteenth century were utilizing local products (both ceramics and wild fauna), but were nonetheless surrounded by and immersed in British material culture. The tools they used, the vessels from which they ate and drank, the buttons, snaps, and buckles that were part of the clothing they wore and even the beer, gin, and medicines they consumed came from European manufacturers. The results detailed below are focused on five feature/activity areas at Lamanai. All structures except the sugar mill,

which is situated approximately a quarter mile inland, are located on or near the shores of New River Lagoon.

Results: Sugar Mill

The sugar mill has a mean occupation date of 1841, and 60 percent of the recovered artifacts are related to foodways and consumption. Foodway-related forms recovered from the sugar mill area include plates, tea cups/saucers, a bone-handled serving/eating knife, a serving bowl, a stoneware bottle, and a shallow iron pot. These forms may represent British food preferences (e.g., roasted meats served on plates) as compared to African or indigenous foodways (e.g., stews and soups served in bowls). Ceramic types include soft-paste porcelain, pearlware, whiteware, and coarse earthenware. Ceramic decorations include banded (annular ware), white/no decoration, painted, sponged, shell-edged, and transfer prints. The most common type of ceramic decoration comprises transfer prints (42 percent). An abundance of imported serving vessels (as opposed to storage and cooking vessels) is also noted at Hacienda Pancota (Sampeck this vol.). Sampeck notes a short supply of indigenous serving vessels may have been the impetus for this particular trend. The sugar-mill area had the second largest area percentage of ale bottles (20 percent) after the Citadel (58 percent). Twenty-three percent of the sugar mill glass assemblage consists of medicine/chemical bottles. Much like findings at San Pedro Cholul (Hernandez this vol.), imported patent medicines represent a particularly robust technological category, which quickly made its way into the daily lifeways and practices of individuals and groups during the nineteenth-century. Other forms of glass artifacts recovered include ale, whiskey, wine, soda, and gin bottles. Clothing objects include buttons of various types and sets. Two faunal elements were present in the sugar mill assemblage: a pig or peccary (Sus scrofa/Pecari tajacu) long bone and canine tooth.

The only English specie in the assemblage was recovered from the sugar mill: a three pence piece dated 1838 –a year after the date of the land grant– with a left-facing female bust and the words "Victoria DG Brittannia Regina FD" (Mayfield 2009). The dates of the artifacts recovered from the sugar mill range from 1745 to 2000vii, but almost half (45 percent) of the artifacts date to before 1820, which is curious, because the mill ironworks were marked with a date of 1866 and cane production is thought to have been brought to the Northwest District in 1847 (Gibbs 1883:127). It is believed that the sugar mill was not built until 1867-1868 and may have remained unused after the boiler explosion in 1868 although a machinery retrofit in 1868 suggests that sugar was still a major focus at the settlement although no evidence of sugar production –other than the mill/mill works– has been recovered to date. Hernandez (this vol.) notes a similar phenomenon with regard to mechanization (e.g. desfibradoras). Hernandez suggests that installation of new time-saving/bulk production or mechanization technologies may have also been constructed as a response to "to the owner's desire for prestige that coincided with having the newest and fanciest technology". To this end, the construction of the sugar mill could have been such a response by the owners of the settlement...more about optics than usability. The mean occupation date of the sugar mill may indicate an early British presence, prior to the 1837 land grant and the construction of the feature that remains standing.

The sugar mill and surrounding activity area are close to the land where the sugar cane was planted, and the area may have included a camp for those working the fields, which could account for the disconnect between the mean ceramic date, artifact dates, and the date of mill construction. Additionally, a preceding more rudimentary sugar mill, or trapiche, could have been built at or near the site of the current mill, but this possibility has not yet been archaeologically explored. Although additional information will be needed before a more

concrete interpretation can be made, the sugar mill data recovered thus far indicate that residential foodway activities ceased or at least slowed as industrial practices became the dominant activity at the mill site soon after an influx of capital from the purchase of the estate by the British Honduras Company Ltd. in 1858.

Results: Residential Feature N12-30

Residential feature N12-30 has a mean ceramic date of 1843 and 54 percent of the recovered artifacts are related to foodways and consumption. N12-30 contains the largest site percentage of bone china (33 percent), along with the YDL (Spanish Church Zone) and the second highest percentage of porcelain (36 percent) after the Citadel, which may indicate the presence of an owner or supervisory personnel living in the structure during the life of the estate and/or possibly British military personnel who were stationed at Lamanai during the wars of 1867 and 1868. Pearlware and whiteware, which make up 35 percent and 42 percent of the area assemblage, respectively, are also present. Other items recovered include medicine bottles, ceramic pipes, wine and gin bottles, two glass tumblers, a plate, a bowl, saucers, and teacups. Teacups and saucers, make up 28 percent of the N12-30 assemblage. Ceramic surface treatment includes white/no decoration, painted, shell-edged, and transfer prints; ceramic colors are limited to blue, green, and polychrome (hand-painted). No animal remains are present in the N12-30 assemblage. Of note is a metal pendant containing the Windsor Crest and the words "George V" that was recovered from the feature. George V was crowned in 1910, and the pendant could not have been deposited until after this date. The object suggests continued British use of the site after 1868, or at least sufficient British influence for someone to have had a commemorative pendant in his or her possession.

The dates of the artifacts recovered from residential structure N12-30 range from 1775 to 2000. In a pattern similar to that encountered at the sugar mill, the pre-1820 date of 68 percent of the recovered artifacts suggests an early presence at this feature which was followed by a shortlived later occupation in the mid-nineteenth century. Of all the contexts described in this chapter, only the residential structure N12-30 assemblage indicates the presence of elite or supervisory residents. The fact that very few serving vessels for solid food occur in the assemblage suggests that the resident(s) took their meals elsewhere, but enjoyed liquid refreshment in and around the structure. Teacups and saucers and two small clear-glass tumblers associated with whisky drinking, wine, and gin drinking were recovered; the porcelain and bone china vessels indicate the presence of persons of high economic status. Residential structure N12-30 yielded a much smaller total assemblage than was recovered from the other contexts reviewed here: N12-30 (N=93); sugar mill (N=155); Citadel (N=304); and YDL Spanish Church Zone (N=6,253). The small assemblage suggests the structure served as the residence of a single person or a small number of individuals. As is the case today, private space was a commodity reserved for those who were in the position to have such a luxury.

Results: Citadel

The Citadel has a mean ceramic date of 1847 and the assemblage has the largest total site percentage of personal and clothing related objects (48 percent) and sewing materials (63 percent), which includes buttons, hooks and eyes, a thimble, and a boot heel. Sixty-six percent of the assemblage is related to foodways and consumption. Artifacts recovered from the Citadel make up 15 percent of the medicine/chemical site total. Three taxa are present in the Citadel assemblage: pig or peccary (*Sus scrofa/Pecari tajacu*), crocodile (*Crocodylus* sp.), and deer (*Odocoileus virginianus*.). It is notable that 19 percent of the objects recovered from this context

are whole or partial smoking pipes. The assemblage includes the largest total site percentage of porcelain (64 percent) and 100 percent of the recovered coarse earthenware, Spanish majolica, and dry-bodied earthenware. Pearlware (29 percent) and whiteware (54 percent) make up the majority of the ceramics ware types recovered from the Citadel context. Vessel forms include a coffee cup, a pitcher, plates, a pot, saucers, and teacups, but no bowls. The vessel forms indicate British food preferences, much like those in evidence at residential feature N12-30 and the sugar mill. Surface treatment types in this area include transfer prints, banded, no decoration/white, painted, sponged, shell-edged, and flow blue. The Citadel has the largest site percentages of ale bottles (58 percent), wine bottles (36 percent), medicine/chemical bottle (28 percent), and gin bottles (33 percent).

The dates of the artifacts recovered from the Citadel range from 1600 to 2000, although the majority (92 percent) date from 1796 to 2000. Unlike the sugar mill and residential feature N12-30, the Citadel does not seem to have experienced a break in occupation or major changes in general use during the nineteenth century. The glass assemblage recovered from this feature is extensive compared to those from the other study areas and, together with the presence of clothing and sewing items, suggests that the Citadel was utilized as a gathering place of some sort, a location where drinks and food were served, clothing could be mended, and medicine was available. The varied forms, wares, and objects recovered from the Citadel indicate either extensive, long-term domestic residence or perhaps a common area or company store used by the plantation household and/or village residents. Only three faunal elements were recovered, so it is unlikely that food preparation was an activity in this particular area. The dearth of food debris may, however, mean that the locale was kept clear of trash and debris or that the remains of

animals cooked in or around this feature were disposed of in a location that has yet to be excavated.

Results: YDL (Spanish Church) Zone

The YDL (Spanish Church) Zone has a mean ceramic date of 1862. Eighty-nine percent of the recovered artifacts are related to foodways and consumption. Only one clothing item is present: the eye portion of a hook and eye set. The zone has the largest total site percentages of bone china (33 percent), along with N12-30 pearlware (62 percent) and whiteware (43 percent). Vessel forms include at least six different kinds of specialty serving bowls, a coffee cup, plates (N=138), saucers, teacups, and teapots. The collection also includes smoking pipes and a bonehandled serving/eating knife. The only chamber pots and window glass^{viii} recovered thus far at Lamanai are from the zone. The artifact data, mean ceramic date, and ware and form types suggest a later occupation of British individuals with access to luxury goods (chamber pots, window glass, wide variety of serving vessels, and porcelain) and a preference for individual place settings (plates). The surface treatment of ceramics in this area include all types except for shell-edged (1790-1830), an absence which suggests that the space represents a later settlement, because shell-edged plates were not in fashion by the mid-nineteenth century. Very few bottle fragments are present in the zone assemblage, but the few that are present come from a wide variety of forms: gin, soda, and wine. The minimal amount of bottle glass associated with the YDL (Spanish Church) zone and residential structure N12-17-30 as compared with the sugar mill and Citadel; suggests that these areas were not spaces where large groups of people spent their leisure time. The high frequency of plates (N=138), suggests, however, that large groups

were being fed within or near this space, an issue that will be further explored during upcoming field seasons.

The zone contains a small percentage (4 percent) of pig or peccary (Sus scrofa/Pecari tajacu) elements, 100 percent of the total site assemblage of cattle (Bos taurus) remains, and 86 percent of the turtle (Testudines) specimens present in the assemblage. The cattle remains are interesting and may speak to the social class of the residents, either during the active life of the estate or when the British soldiers were present from 1867-68 (Colburn's United Service Magazine 1868; Gray 1869; Rogers 1885). Cattle would have been more difficult to transport to an inland location than would pigs; they would also have produced fewer offspring less frequently than pigs for future consumption, and would have taken more effort to maintain as a stable resource. Cattle need grazing areas, water, and hands-on upkeep, but pigs will eat almost anything and can be set loose to find subsistence, mix with the wild pigs, and reproduce with little to no intervention by the colonists (Mayer and Brisbin 2008:8; see additional references in Umberto 2004). The dates of the artifacts from the zone range from 1775 to 2000 with no outstanding percentages weighted toward any particular period, much like the Citadel. Future archaeological investigations may, however, uncover other structures of less durable materials located near and possibly connected to the activities taking place within the zone.

Results: 2014 Excavation Site

Other than a few modern artifacts deposited during a brief occupation directly southeast of the 2014 excavation area (1980s-1990s), the assemblage dates to the late eighteenth- and nineteenth-centuries. Of note, very few imported serving vessels (e.g. plates, cups, bowls, bottles) were recovered during the most recent archaeological investigations (N=16) which,

unlike the other British colonial activity areas at Lamanai, suggests that the 2014 excavation site was not a residential or domestic unit, at least not for a substantial period of time. The paucity of imported ceramics is unusual for a nineteenth-century site. Much like the other feature/activity areas at the site, very few cooking and storage vessels were recovered in 2014, which suggests dependence on locally produced wares for these types of activities.

The 1,610 faunal specimens recovered from all lots and operations during field season 2014 represent 25 distinct taxaix. The largest percentage of meat foods (NISP/biomass) recovered during field season 2014 came from large mammals (7.58%/51.33%) and reptiles (58.63%/39.02%). Of note, turtle constitutes 97.1% of the reptile specimens. Butchering marks were only observed on four elements, which suggests that meat foods were being cooked in liquid and not roasted. Forty-two burned and 18 calcined faunal specimens were recovered (3.6% of the total faunal assemblage), which also suggests that meat was not often prepared over an open flame. Only two domestic fauna were noted in the assemblage (NISP=3). Ten (NISP) fish specimens were recovered. Two cattle (Bos taurus) elements, a long-bone fragment and a nearly complete metatarsal, and one chicken (Gallus gallus) humerus were recovered. Along with butchering and cooking trends, the lack of domestic fauna may point to a labor or non-elite domestic and/or habitation activity area where wild meats were a more cost-effective method of procuring protein foods. Pig/peccary (Sus scrofa or Pecari tajacu) made up 18.27% of the site faunal assemblage biomass. However, it is very possible that pig made up a much higher percentage of the meat foods consumed at the site then the bones suggest. The groups living at Lamanai during the eighteenth and nineteenth centuries likely also ate salted pork, a common preserved food packed and distributed in wooden barrels. Barrel stays were recovered from all areas of the 2014 field season excavation site, although large barrels were a common packing

container for basically anything-that-could-fit-into-a-barrel, including the dry cement mix used to make concrete known to have been utilized at the site.

The 2014 site is fundamentally different than the other feature/activity areas studied at Lamanai. In addition to a lack of food and beverage serving vessels (e.g. ceramic and glass materials) compared to the other sites, the 2014 excavation site was replete with construction and architectural materials (Mayfield 2015). The assemblage included cut (hand-forged) and wire nails, concrete flooring, window glass, mortar/stucco, and brick. Interestingly, the feature was constructed on top of a traditionally built Maya platform, but the fill (all the way to bedrock) contained both Maya and British rubbish, at least in the areas excavated. Of note, the platform fill did not contain any Spanish materials or pre-1875 artifacts, which places the construction around the turn of the century or slightly before. This suggests that while the Maya may not have been providing agricultural or extractive labor, they may have been architects and construction workers hired by colonial entities. This would, clearly, make sense. The local environment is very wet and rainy and slopes downhill to the lagoon, so structures, if not built to drain properly, will fail and be pulled apart due to water and soil movement. It would have been a prudent business decision to hire local architects to build structural foundations using traditional, indigenous technology. To this day, the platform drains and dries very quickly after a rainstorm.

Discussion and Synthesis

Even with the aforementioned recovery and control issues, the technological variations between the Lamanai contexts outlined here permit a few limited observations. First, very few

European imported cooking and storage pots were recovered, but many Maya ceramics are present in the assemblage^x, which suggests that locally made pots were being utilized. Certain objects including smoking pipes, tools, architectural hardware, medicine bottles, eating and drinking vessels, and beverage bottles were recovered from all contexts, but inconsistent recovery techniques, including lack of screening of British deposits prior to excavations carried out in 2014^{xi} (very few objects were smaller than half an inch) combined with little focus on faunal specimen retrieval have unavoidably left gaps in our overall understanding of household-level technological dialectics of consumption in play during the nineteenth century. For example, although the site is located on a large lagoon, very few fish remains are present in the assemblage. It is unlikely that fish were not an important food staple for the residents of the plantation household across all socioeconomic strata, but further excavation and refined retrieval are needed to make assessment of this issue possible.

Variation in Technological Dialectics and Discussion of Comparable Sites

This chapter encompasses the entirety of post-colonial, British material and documentary data from Lamanai that has currently been analyzed. To this end, interpretations are necessarily based on restricted data sets...both from intra-Lamanai recoveries and comparable nineteenth-century sites within the British Caribbean colonial socioeconomic biome because very little systematic research has focused on the nineteenth-century in the Western Caribbean (Table 9.4). With that said, the data are robust enough for a limited interpretive and comparative discussion here.

Insert Figure 9.4 Near Here.

Currently the greatest distinctions observed among feature/activity areas at Lamanai are 1) continuous vs. interrupted occupations, 2) frequency of luxury and specialty items, 3) presence or absence of clothing repair and maintenance objects, 4) variability in animal taxa, and 5) residential or non-residential occupation/activities. The sugar mill and Residential Feature N12-30 both had clear breaks in occupation –a late eighteenth- to early nineteenth-century presence and subsequent short-term re-use in the 1860s-70s (object temporal percentage ratio ~3:1)—, whereas the Citadel and YDL (Spanish Church) Zone assemblages do not exhibit clear breaks in occupation. It is interesting that the temporal-occupational variation between the two classes of occupations corresponds with geographic proximity within the Lamanai estate (Figure 9.2). Each "time" zone has discrete feature/activity areas where inhabitants utilized specific technologies, which suggests socioeconomic variability within the larger plantation household, although why these technologies were chosen (e.g. availability, choice, supplied by the owners) is currently unknown.

Objects recovered from N12-30 and the Spanish Church zone include fine ceramics, chamber pots (a very specific and personal technology!), and specialty items related to food and beverage service, technologies that were not available from local sources during the nineteenth century. The feature/activity areas that produced these finds may have housed plantation owners or supervisors, who chose these items as a reflection of their position and to project social distinction or difference from individuals and groups providing labor for the enterprise. Objects recovered from the Citadel and sugar mill feature/activity areas include a significant number of clothing repair and maintenance objects, which suggests a local population, presumably labor groups, in need of such objects and services. Although repair and re-use of objects --"chaîne opératoire" (Leroi-Gourhan 1957; Geneste 1985 and "Behavioral Archaeology" (Schiffer 2010) -

- could have been practiced at all socioeconomic levels, having supplies on hand suggests that the individuals residing in these spaces may have needed repair services, either owing to an inability to replace items or because they could not travel easily, if at all, outside the Lamanai plantation household.

While, very few faunal remains are present in the assemblage other than those recovered during the 2014 excavations. Wild animal remains are most frequent within the Citadel assemblage and domesticated animal remains are present only in the YDL (Spanish Church) zone and 2014 excavation site collections; this suggests there were different groups residing in these contexts who 1) had variable access to domesticated meats and who utilized local, wild resources and/or 2) had variable meat-food preferences. Although few studies have focused on the foodway preferences and technologies of nineteenth-century Belize, a recent study of faunal and food remains (Thornton and Ng 2014), also elucidated variable wild vs. domesticate food strategies between socio-economic and ethnic groups at Holotunich during the nineteenth century. The authors note that whereas both Maya and post-emancipated labor groups preferred or supplemented their protein intake from wild sources, documentary evidence suggests that hardwood extraction teams, in particular, consumed salted pork and other prepackaged food items that would have left very little skeletal evidence^{xii}.

Comparative Site: The Maya at San Pedro Siris, Belize

San Pedro Siris, in Northern Belize, was an independent site occupied by Maya rather than the British, which had "almost no earlier occupation" (Yaeger, personal communication 2011). Although the site was occupied by Maya and not a colonial group, the San Pedro Siris study (Yaeger et al. 2004 and 2005) is one of the few focused on the nineteenth century in

Belize. Yaeger et al. (2004:110) argue that "Maya milpa agriculture [technologies] impeded the system of dependency and debt peonage favored by colonial powers and made the Maya unsuitable employees, at least in the early period of occupation." Although the population was agriculturally independent, the archaeological material culture "speak[s] strongly to participation in a cash or barter economy of some sort" (Yaeger et. al. 2004b:110), and excavations recovered evidence that the inhabitants of the autonomous hinterland village were actively using both imported British and local indigenous technologies within their households. Much like Lamanai, excavations in 2004 recovered imported serving and eating wares, scissors, buttons, pipes, and medicines (Yaeger et al. 2005). The residents were incorporating imported goods, actively participating in outside trade, and even using the Spanish church that Vatican funds had paid for, but like their predecessors elsewhere in the country they remained in charge of their own production and distribution. Even after colonial contact, there is evidence that Maya groups continued in their predecessors' household and hinterland traditions. The lack of evidence for Maya agricultural or extractive labor at Lamanai in tandem with the San Pedro data and documentary evidence of labor shortages suggests that, generally, the Maya did not need to sell their labor in order to survive in the nineteenth-century. They were integrating imported technologies into traditional lifeways where it suited them, but were clearly surviving well outside the colonial labor sphere.

Comparative Site: Augusta, Roatán Island, Honduras

A recent study by Mihok and Wells (2013) (also Mihok 2013), notes a paucity of artifact variation at Augusta, Honduras; a British-colonial, mercantile site staffed mainly by Miskito laborers during the 1740s that is similar to the pattern encountered at Lamanai. The authors note

the site's uniqueness compared to other colonial-era sites in the Caribbean, "namely plantations and other resource extraction ventures, where boundaries and partitions (social and material) actively segregated natives and slaves from the English" (2013:117-118). The study data show that "European and Miskitu artifacts were intermixed across the settlement...[and that the researchers were] unable to detect any patterning in the spatial distribution of artifacts or assemblages" (2013:117-118). Mihok and Wells posit that the lack of intra-site artifact and technological variation may be the product of habitation units that were "used or occupied by more than a single group" (2013:117-118). Another similarity between Augusta and Lamanai is evidence that "indicates that the Miskitu occupants of Augusta continued to use indigenous tools and pottery while apparently having access to English products" (2013:117-118)"

Comparative Site: Xuxub, Mexico

Similar to Lamanai, Xuxub was a nineteenth-century sugar estate in eastern Yucatan that employed immigrant laborers (Mathews 2017 and Sullivan 2006), although the majority of laborers at Xuxub were of German descent and not Chinese who made up the majority of immigrant laborers at Lamanai. At Xuxub, laborers were allowed to grow corn for their own subsistence, while producing sugar cane for the plantation owners (Sullivan 2006:23). While the presence of subsistence farming by labor groups at Lamanai has not been documented, to date, it is likely that those living and working at the site full-time would have tended small gardens and hunted local fauna, in addition to consuming imported (e.g. canned or bottled) foodstuffs, such as salted pork, alcoholic beverages, tinned meats, and condiments. Although further research is needed to understand the make-up of labor at Lamanai, there is little evidence of Maya labor at the site. Similar to the Lamanai and San Pedro Siris data, Sullivan notes that the local Maya near

Xuxub were "unlikely to toil for whites" (Sullivan 2006:31) because they could support themselves "on their own lands" (2006:30). Much like the socioeconomic and historical framework at Lamanai, Xuxub experienced labor shortages due to emancipation and lack of interest or need by the local Maya to work for colonial entities. .

As mentioned earlier, the nineteenth-century has not been systematically researched in Belize or at Lamanai, to date. However, what we do know suggests that British technologies were being adopted by the Maya (e.g. medicines, serving and eating wares) and Maya technologies were being adopted by the British (e.g. construction, cooking and serving wares)...all dependent on what worked, and was economically viable or available, within traditional lifeways.

Concluding Thoughts

The interesting part of the story is not that there was a British plantation in the New World during the nineteenth century, but rather that the people residing and/or working at the Lamanai settlement lived their daily lives within the mélange of technologies, objects, materials, voices, activities, and expectations that had both internal (local) meanings and external (regional and global) connections. The archaeological record provides technological, structural, social, economic, and functional information, having been deposited by groups and individuals in the past by necessity and/or choice as well as through unconscious action or reaction to the world around them. Although events such as battles, treaty signings, and coronations are important historical phenomena, the data needed to understand past people more fully as agents, actors and subjects (Trouillot 1995) have much more humble beginnings. The material remains of day-to-day behaviors related to technological dialectics of consumption are found in locations of

frequently performed systematic activities, such as kitchens, pathways, trash dumps, and outhouses (Braudel 1981; LeFebvre 1992).

As researchers have successfully implemented household archaeological models, methodological approaches, and theoretical frameworks, the protocols and formulae have also been tested, questioned, and refined over time. One of the primary theoretical concerns is the lack of definitional consensus regarding a 'household' or 'family unit' (Yanagisako 1979). Households are not just material and spatial contexts; 'household' and 'family unit' are concepts and constructions, which entail variable performative, historical, and cultural behaviors. There is general agreement that the household is the "minimum spatial unit of the archaeological record that has social meaning" (Manzanilla and Barba 1990:41) because it is this level at which persistence of behavior, practice, and ideology is visible. High-frequency practices and behaviors such as eating and drinking are performed so often that large amounts of materials become deposited. To this end, this chapter's treatment of the Lamanai plantation landscape as a 'household', aims to highlight the interconnectedness of this space as both a traditional household (read: where people live, sleep, and eat) and, at the same time, an industrial space for producing surplus and profit; different types of activities happening at the same time and within the same space. Work and residential behaviors, motivations, and materials were intimately intertwined and did not exist separately from the other. Nineteenth-century sites were teeming with the monotonous stuff of daily life, but these seemingly mundane objects, materials, and spatial data have the ability to elucidate specific and personal day-to-day, practices and behaviors when analyzed at the discrete scale.

Ceramics, glass, food, medicines, leisure consumables, and faunal remains represent coherent segments of material culture that can tell us about socio-technic practices and

persistence of behaviors in past societies (Bourdieu 1977; Little 2007; Majewski and O'Brien 1987; Silliman and Witt 2010; Voss 2008). Features and activity areas were used and reused over time (in the case of Lamanai, over thousands of years by different groups and individuals) and cultural and environmental processes, such as flooding and new feature construction, continue to affect the archaeological record over time (Schiffer 2010). As a result, the definition of 'households' at Lamanai remains somewhat fluid at this point and will remain so until we have more data with which to make a better assessment of when, by whom, and in what capacity (e.g. a communal eating area v. long-term/transient personal housing) feature/activity areas were utilized and how this may have changed over time – a space may well have been a 'household', but possibly only for a short period of time.

While there *is* technological variation within the Lamanai assemblage as a whole (e.g. different ceramic forms and decoration, types of tools, meat-foods, packaged foods, smoking pipes, alcoholic beverages, etc.), very little variation occurs between activity area contexts and very few personal objects have been recovered at Lamanai to date. The current lack of variation, within the assemblage suggests a lack of consumer choice, which may point to a restricted market economy and/or a local, subsistence economy centered on the technological- and use-values rather than diversity of products.

There is much to be learned about life at Lamanai during the nineteenth century, which will elucidate the local impacts of regional and global technological trends that necessarily affected those living and working at the settlement. Lamanai was clearly an important site in the region throughout its long-history of pre- and post-contact occupation. In fact, many of the corporations first established during the early part of the nineteenth century in the Orange Walk District –including the Lamanai settlement– through buyouts and consolidations are still active

participants in the Belize economy, and the landscape of Lamanai continues to be a pluralistic, multicultural space, currently utilized as an archaeological and ecological park, visited by tourists and researchers from all parts of the globe. Ultimately, Lamanai was and continues to be a Maya site that was briefly administered by the Spanish and briefly occupied by the British. As archaeologists interested in the nineteenth century, we are quite literally studying the interlopers and a brief, temporal anomaly in the grand scheme of things. It was, nonetheless, an anomaly that would have an impact on the cultural and social make up of modern-day Belize.

The ongoing historical-archaeological study at Lamanai aims to advance our understanding of the nineteenth century in Belize, Central America, and the Caribbean more generally. Investigations that combine archaeological excavation with what is known through historical research can add chronological information as well as provide alternative perspectives on internal dynamics and external connections of British-colonial plantation and extraction enterprises. Furthermore, studies of small-scale, for-profit landscapes can add important information to our knowledge of recent history. Many times such sites are archaeologically messy, frequently still occupied, poorly documented, and not as architecturally or materially massive as the sprawling, high-output plantations in the Southern and Eastern United States and Caribbean. Yet the implications of small-scale and, by implication, more flexible enterprises are what make these spaces exciting study prospects.

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ⁱ For the purposes of this chapter 'consumption' refers to practices and behaviors related to consumable objects and materials. Consumable objects or materials include items that entered the body (e.g. flora, fauna, medicines, beverages, condiments) as well as objects and materials used in ingestion, storage, cooking, and serving consumables (e.g. vessels, smoking pipes, bottles, cans).

ⁱⁱ 'Plantation household' refers to the entire estate complex including objects, materials, structures, activities—both residential and industrial—and spatial organization.

The majority of excavations at Lamanai have focused on the Maya and Spanish occupations, but nineteenth-century materials were collected and stored for future study.

Ocarse earthenware and porcelain do not contribute to mean ceramic dates because the production techniques of these ware types did not change to a significant degree over time, whereas other ware types provide a basis for dating according to observable, quantitative technological timelines.

^v See also Schiffer 2010.

vi Includes types of foods, cuisine and cooking preferences, vessels forms, and vessel decoration.

vii The end date of 2000 noted in this section is somewhat misleading. Although the objects and materials were recovered within a nineteenth-century context, some items, such as whiteware ceramics, wire cut nails, and steel or iron artifacts, are currently produced with the same technology as that employed during the nineteenth century. The production date spans reflect the true production dates of the objects in relation to the latest dates that can be assigned on the basis of archaeological excavation or surface collection.

viii Update: window glass was recovered within the remains of a wooden feature during recent excavations focused directly north (~90 meters) of the YDL (Spanish Church) zone.

- ^x More research is needed in order to understand how, where, when, and by whom Maya ceramic objects were utilized during the nineteenth century. Locally made wares were not the focus of the 2009 and 2015 studies (Mayfield) and because most of the Maya artifacts were separated from the nineteenth-century assemblages during previous analyses, the author was not able to view the combined data as whole contexts.
- xi All field season 2014 excavated materials were ¼ inch screened. Screening significantly increased glass and faunal frequencies, but made less of an impact on the types and amounts of ceramic and metal objects recovered (Mayfield 2015).
- xii Although several different cuts, including sides and snouts, were salted at least some salted pork product would have contained pigtails, however no caudal vertebrae have been recovered to date.

ix Faunal remains recovery and zooarchaeological analysis had not been a focus of excavations before 2014, therefore this particular data set, while seeming inordinately more variable and robust, is most likely unremarkable. A mix of wild and domestic fauna is to be expected at a forest site, located next to a large, river lagoon.