

2009

## Afro-Barbadian Healthcare during the Emancipation Era

Kathleen Elizabeth Mocklin  
*College of William & Mary - Arts & Sciences*

Follow this and additional works at: <https://scholarworks.wm.edu/etd>



Part of the [African History Commons](#), and the [Social and Cultural Anthropology Commons](#)

---

### Recommended Citation

Mocklin, Kathleen Elizabeth, "Afro-Barbadian Healthcare during the Emancipation Era" (2009).  
*Dissertations, Theses, and Masters Projects*. Paper 1539624385.  
<https://dx.doi.org/doi:10.21220/s2-8nfz-2n54>

This Thesis is brought to you for free and open access by the Theses, Dissertations, & Master Projects at W&M ScholarWorks. It has been accepted for inclusion in Dissertations, Theses, and Masters Projects by an authorized administrator of W&M ScholarWorks. For more information, please contact [scholarworks@wm.edu](mailto:scholarworks@wm.edu).

Afro-Barbadian Healthcare During the Emancipation Era

Kathleen Elizabeth Mocklin

Lake Charles, Louisiana

B.A., Louisiana State University, 2006

A Thesis presented to the Graduate Faculty  
of the College of William and Mary in Candidacy for the Degree of  
Master of Arts

Department of Anthropology

The College of William and Mary  
August 2009


## APPROVAL PAGE

This thesis is submitted in partial fulfillment of  
the requirements for the degree of


Master of Arts

  
Kathleen Elizabeth Mooklin

Approved by the Committee, April, 2009

  
Committee Chair  
Dr. Frederick H. Smith  
Adviser

  
Dr. Grey Gundaker  
Committee Member

  
Dr. Marley Brown III  
Committee Member

## ABSTRACT PAGE

In 1834, British abolitionists celebrated the passage of the Emancipation Act, which brought the old order of the plantation system in the British Caribbean to an end. While the planter class grappled with how to assert their control under a system of free labor, former enslaved communities pondered the meaning of Emancipation and the changes it would bring. The changes in their conditions, mainly concerning healthcare, is the focus of this thesis. Within historical accounts concerning this transition from slavery to freedom (i.e. Sturge and Harvey: 1837), there is a lack of information about the health conditions of the Afro-Barbadian community. Historical archaeology can be seen as critically engaging with the historical narrative to challenge the documentary record, as well as fill in the documentary gaps and the inadequate documentary interpretations of history. This thesis attempts to develop this general goal by examining the material culture associated with healthcare from an Afro-Barbadian Emancipation era settlement site at St. Nicholas Abbey sugar estate in the northern parish of St. Peter.

Archaeological investigations at the site in 2007 and 2008 by the College of William and Mary uncovered a substantial amount of material associated with healthcare that has helped shed light on the medical activities of Afro-Barbadians during the post-Emancipation period. Drawing on this archaeological material, I intend to show how the marginalized Afro-Barbadian community, within an unequal labor system, was able to possess agency within the realm of healthcare. It seeks to provide a better understanding what ailments affected the Afro-Barbadian community's health and what forms of treatment were available. The primary sources concerning medical institutions in Barbados often reflect the racist ideologies of white observers and reveal different attitudes toward medicine and unequal access to medical care in the white and black communities. These narratives also portray Afro-Barbadians as willingly accepting their given stations in an oppressive society without question, and without agency. However, the material culture from St. Nicholas Abbey provides a deeper understanding of healthcare in this passed community and the agency that Afro-Barbadians did indeed possess in their pursuit of a better means of medical treatment. nter Text Here. Do not exceed 3500 characters including spaces, or one page of text.

## TABLE OF CONTENTS

	Page
Acknowledgements	ii
List of Figures	iii
Introduction	1
Chapter I: Archaeological Background of the Ridge Site at St. Nicholas Abbey	4
Chapter II: Putting Healthcare in Barbados into Perspective	11
Chapter III: Putting Bottles to Medicine and Spirituality	35
Chapter IV: Concluding Thoughts	47
Figures	51
Appendix A: Acts Passed in Barbados Legislation Related to Healthcare	55
Appendix B: List of Names of the Enslaved People at St. Nicholas Abbey	57
Appendix C: Examples of European Medicine from Dr. Collins' Medical Manuel	65
References Cited	68
Vita	75

## ACKNOWLEDGEMENTS

The word “acknowledgement” can not fully grasp the support and aid I have received from the many people who have been involved in the formation of this thesis. This work has benefited greater than I could have imagined from their very presence within this rite of academic passage. Firstly, I would like to thank all the members of my thesis committee. Especially Dr. Frederick Smith for letting me work alongside him in Barbados over the years and his constant support during my academic journey. Without Dr. Smith, I would not be here writing these acknowledgements coming ever so closer in pursuing my goals as an Anthropologist. Many thanks are due also to Dr. Grey Gundaker and Dr. Marley Brown III for their excellent advising and patience during this enlightening process. With their support and many helpful suggestions, I was able to successfully explore all of my research interests and open my eyes to a whole breadth of questions to further explore. Without the dedication, passion, and wealth of knowledge in Anthropology of my committee, this thesis would never have made it to the publishing office.

Next, I want to thank my friends and colleagues, for their emotional support, advice, and friendship: Dr. Karl Watson, Dr. Matthew Reeves, Chris, Martina, Oggy, Raquel, Ashley, Jess, my dog Ripley, and Kyle. Finally, to my family: Mom, Dad, and Christine I want to thank the three of you for all the love and support you have given me while I strive to pursue a career in Anthropology.

## LIST OF FIGURES

Figure	Page
1) Fragments of a white milk glass ointment jar.	51
2) Sample of pharmaceutical bottle fragments.	51
3) Sarah Peyton, assisting in the 2008 analysis of the Ridge site collection.	52
4) The gulley behind the main house of St. Nicholas.	52
5) Dr. Frederick Smith from the College of William and Mary showing the 2008 field school the Ridge Site.	53
6) Students from the 2007 field school excavating the Ridge site.	53
7) Satellite view of St. Nicholas Abbey Estate showing the Ridge site located NW of the main house (from GoogleEarth 2007).	54

## INTRODUCTION

“In examining the bottles in question, I was confronted with the problem of interpreting deeper spiritual meaning from an otherwise mundane set of objects.”

~quote from Matthew Reeves’ presentation  
at the 2009 SHA Conference.

At the presentation of his paper, “Mundane or Spiritual?—the interpretation of glass bottle containers found on two sites of the African Diaspora,” at the 2009 Society for Historical Conference, Matthew Reeves considered the steps in how archaeologists interpret commonly occurring artifacts such as glass bottles (Reeves 2009). For the last twenty years archaeologists of the African Diaspora have been concerned with examining the potential spiritual use of material culture, and have interpreted these objects as African survivals, forms of resistance, and patriarchy (Leone 1999; Reeves 2009; Wilkie 2000). Many of the scholars involved in this search for spiritually-oriented artifacts have called for careful consideration of the archaeological contexts from which they were recovered and the ethnohistorical reading of texts to enrich interpretations.

Archaeology can be seen as critically engaging with the historical narrative to challenge the documentary record and fill in gaps of our historical knowledge. This thesis attempts to enhance our understanding of healthcare among Afro-Barbadians at St. Nicholas Abbey sugar plantation during the post-emancipation era by examining the presence of



pharmaceutical bottles recovered from the site of the estate's tenantry or village. Archaeological investigations conducted at the site in 2007 and 2008 by archaeologists from the College of William and Mary uncovered a substantial number of pharmaceutical bottles, which raise questions about the medical and spiritual activities of African descendant communities during the post-Emancipation period in Barbados.

Pharmaceutical bottles are ubiquitous on the sites of emancipated slaves in North America and the Caribbean (Boroughs 2007; Wilkie 2000), and their presence provides an opportunity to explore both the spiritual and practical use of these objects. Drawing on archaeological evidence from St. Nicholas Abbey, and critically examining the historical documentation and secondary literature on healthcare in Barbados, I intend to explore three possible interpretations of these bottles. The first being these pharmaceuticals were used in the secular sense, within the original contents of the bottles used for their intended purpose. The second being the spiritual sense, as in these bottles would have been used in the practices of obeah for protection and healing. The third possible interpretation is a collection of bottles that have been saved from previous use or taken from trash piles around the main house of the property in order to be reused for various reasons. From these three interpretations of the bottle collection, I hope to present to the reader deeper interpretations of how African descendant communities practiced

healthcare and maintained African-oriented spiritual practices under a harsh labor system.

In order to better understand the post-emancipation community at St. Nicholas Abbey and their material culture, this thesis attempts to examine healthcare within a broader historical perspective. How did healthcare evolve in Afro-Barbadian communities? What ailments did residents encounter? Where was healthcare practiced? And who was in charge of healthcare? Using primary sources, such as plantation accounts and travelers' journal, as well as secondary literature concerning healthcare in Caribbean contexts, this thesis emphasizes the blending of both European and African forms of medical treatment. Drawing on the research of Grey Gundaker (2005), Matthew Reeves (2009), Ywone Edwards-Ingram (2005), and Laurie Wilkie (1997, 2000), chapter three explores the medicinal and spiritual use of pharmaceutical bottles. Moreover, using the framework of practice theory by French sociologist Pierre Bourdieu, I seek to highlight the way Afro-Barbadians at St. Nicholas Abbey sought to improve their conditions within the realm of healthcare. Overall, my goal within this thesis is to explore broad connections between people, their beliefs about healthcare, and the material world that facilitated medical treatment.

CHAPTER I:  
ARCHAEOLOGICAL BACKGROUND FOR THE RIDGE SITE  
AT ST. NICHOLAS ABBEY

Within the Parish of St. Peter lies St. Nicholas Abbey Plantation; a plantation that was built in 1658, shortly after Barbados' settlement by the British in 1627. The property was first established as a sugar estate by British planter Col. Benjamin Berringer. After Berringer's death in 1661, John Yeamans, also a planter, acquired the estate. The estate went through a series of owners and was eventually taken over by the Chancery Court of Bridgetown in 1811 when the plantation had racked up a considerable amount of debt, which occurred during the decline in sugar prices late in the eighteenth century. The Cumberbatch brothers purchased the plantation in the 1820's, and eventually sold the estate to the Cave family in 1834 after the passing of Laurence Trent Cumberbatch in 1833. The Cave family continued the production of sugar and syrup at the plantation's mill until November 1, 2003. In early 2006, James Joseph Petri, a relative of the Cave family inherited St Nicholas Abbey and subsequently sold it to Larry and Anna Warren. The estate is currently owned by the Warren family who are involved in restoring the plantation as a national heritage site. Its potential as a UNESCO World Heritage Site is also a goal set by the Warren family. Such goals led to a working relationship with the Warren family and Dr. Frederick Smith from the College of William and Mary.

In the summer of 2007, an archaeological field school from the College of William and Mary led by Smith and graduate student Sean Devlin explored two areas of the property: (1) the areas of the main house on the plantation; and (2) the rocky ridge northwest of the main house among the sugar cane fields (refer to Figures 5, 6, and 7). The rocky ridge area was later labeled the "Ridge" site at the close of the field season, and according to Devlin, "represents the remains of an Afro-Barbadian village that spanned the transition from slavery to emancipation in the first of the nineteenth century" (Devlin 2008: 3). The material culture gathered from the Ridge site is the focus of this thesis.

Before the excavations conducted by Smith and Devlin, a project headed by Jerome Handler in the summer of 1987 involved a pedestrian walk over of the Ridge site (Devlin 2008: Figure 2). Over the course of the project, Handler noted the presence of several "stone mounds" on the ridge (Handler 1989: 42). This discovery triggered the excavations of William and Mary's summer field school in 2007. Surface collection of the Ridge site revealed a heavy concentration of material culture related to domestic activities. Based on this evidence, and Handler's earlier research, the ridge was identified as a potential site for the field school to further investigate (Devlin 2008).

Two test units (TU 11 and TU 12) were placed within the area of the stone mounds on the ridge in order "to examine the quantity and quality of archaeological materials that could be recovered" (Devlin 2008).

Smith and Devlin hoped the materials recovered during those excavations would provide insights into who lived at the site (Devlin 2008). Devlin wrote,

The distance between the Ridge site and the main excavation around the planter's domestic complex was great enough that a new grid was established for this ridge area. A site datum was established near a large boulder located at the crossroads of two cart roads in the vicinity and a metric grid was used to measure two units (see figure 3 of Sean's). The first unit, designated TU 11 and measuring 1 m x 2 m, was placed at the edge of one of the mounds of stone rubble identified during both Handler's 1987 work and the 2007 pedestrian surveys. The second unit, designated TU 12 and measuring 1 m x 1 m, was located amidst a thick surface scatter of artifacts discovered beneath the sour grass growth. It was on the opposite of the cart road from TU 11, ten meters grid west near the crest of a slight depression that sloped away to the west (Devlin 2008: 5).

According to Devlin, the test units were excavated by natural layers with each possessing their own, individual context for later artifact analysis.

After analyzing the 1,845 artifacts that made up the Ridge site assemblage, Smith and Devlin were confident that the Ridge site represented a domestic site for Afro-Barbadian workers that lived there in the late eighteenth and early nineteenth centuries during the transition from slavery to emancipation (Devlin 2008).

In order to show the duration of occupancy on the site, Smith and Devlin derived the date ranges from the accepted standard ranges of ceramic ware productions used by historical archaeologists (South 1977; Noel Hume 1969; Devlin: 2008) and from these formed both a the *terminus post quem* (TPQ) and a mean ceramic date (MCD) for the site. Devlin's study presents a modified TPQp90, which represents the date of

the latest manufacture of ninety percent of the datable artifacts in an attempt to correct for human error during excavation.

In the production of the TPQ for the Ridge site, ceramics were selected as reliable sourcing for production dates (Devlin 2008: 7). In both units, the results showed that the TPQp90 for Stratum I spanned the decade 1820 through 1830, and Stratum II spanned from 1790 to 1795 (Devlin 2008: Table I). From this, one can gather that these years correspond to the final years of slavery in Barbados.

An MCD date of 1821 and an adjusted median date of occupation of 1819 were later determined by Devlin (2008) for the collection; suggesting that the site was occupied for roughly 20-25 years before and after 1821. With this information gathered from Devlin's analysis, it can be said that the site was occupied well within the time of the 1834 emancipation in Barbados.

Devlin's system of artifact categorization is based on functional classifications established by Stanley South (1977). Even though this system is biased it still aids in the process of interpreting material culture in terms of people and their past activities. Using South's categories, Devlin divided the collection into eight distinct functional groups. These eight groups were: architectural, domestic activities, faunal, furniture, general activities, kitchen, medicinal/ hygiene, and smoking. The group of bottles central to this thesis is found within the "Medicinal/Hygiene" group.

The artifacts associated with this group were recovered from Test Unit 12 (See Devlin 2008: Figure 5). In reference to his interpretation of the "Medical/Hygiene" group, Devlin mentioned the recovery of, "small ointment jars made of milk glass," (See Figure 1) but only went as far to say that they had a, "medicinal or cosmetic nature," and that they "may have been used in the privacy of the home" (Devlin 2008: 15). After thorough examination of the Ridge site collection in the summer of 2008 (See Figure 3), I counted a large number of clear, aqua, and molded pharmaceutical glass bottle fragments (n=282) (See Figure 2) that were found in the same context as the small ointment jars. One was embossed with the following letters, "B & Co & L." Most of the pharmaceutical bottles at the Ridge site that did not have additional molded markings and were not identified as the paper labels had long since decayed.

From the nineteenth through the mid twentieth century, most glass companies produced these types of bottles, and the medicines they contained were prescribed to consumers by local druggists or doctors (Watson 1965). From my analysis of these fragments, the only vessel shape that could be identified was that of the square variety. Square shaped pharmaceutical bottles were common from the 1820's to the 1850's (Griffenbaghen and Young 1959; Watson 1965; Fike 1987). The pharmaceutical bottles provide evidence that can help us better understand the healthcare that was available to this community of Afro-Barbadian estate workers during the era of emancipation.

Pharmaceutical phials and bottles are frequently recovered from African descendent sites and, in this regard, the Ridge site is no exception. Historical narratives and other related literature suggest that there was a collective body of general knowledge among plantation communities about natural substances that were commonly used to remedy ailments. Within these communities, doctors, nurses, and general healers often recycled pharmaceutical containers, preparing homemade remedies from local sources (Wilkie 1999, 2000; Boroughs 2007). This would suggest that in addition to western medicines, the people on this estate relied on their own experts and medicinal concoctions to treat illnesses.

The high concentration of pharmaceutical bottles and vials at the Ridge site raises questions about Afro-Barbadian healthcare during the emancipation era. How can we as archaeologists interpret these objects? What forms of healthcare were available or provided for this community during the era of emancipation? What health conditions and challenges did they face? How did they handle these issues within their community? Historical archaeology has the potential to shed light on the lives of past communities through the multivocal nature of material culture. Material culture is not static; through time these materials possess different meanings and uses to a number of groups. Artifacts produced by Europeans (i.e. pharmaceutical bottles) found in an Afro-Caribbean context (i.e. the Ridge site) have multiple meanings and uses. To fully grasp the meaning of these objects, we must consider the history of



Barbados' emancipation and the history of medicine itself within the British Caribbean. The following chapter will provide that background to what was found.

## CHAPTER II: PUTTING HEALTHCARE IN BARBADOS INTO PERSPECTIVE

The primary sources concerning medical institutions in the Caribbean often reflect the racist ideologies of white observers and reveal different attitudes toward medicine and unequal access to medical care in the white and black communities. These sources also portray Afro-Caribbean peoples as amenable to their social stations in an oppressive society without question, and without any attempt of their own to improve their conditions. However, the material culture from St. Nicholas Abbey suggests that Afro-Barbadians did indeed take charge of medicating their lives from the ailments brought on by hard labor and the inequities of slavery.

In 1834, British abolitionists celebrated the passage of the Emancipation Act, which brought the old order of the plantation system in the British Caribbean to an end. While the planter class grappled with how to assert their control under a system of free labor, former slaves pondered the meaning of Emancipation and the changes it would bring. On the island of Barbados, the freedoms that accompanied Emancipation were muted by the knowledge that there was little arable land for former slaves who wished to establish themselves as independent cultivators. Unlike Jamaica, which had extensive lands for the establishment of peasantries, the work of sugar cultivating on estates went on as before. Ownership of land in Barbados was almost entirely the monopoly of the

planters. This monopoly gave them a stable control of labor; a key in the continuance of Barbados' sugar industry.

The creation of the apprenticeship system in Barbados further slowed the transition from slavery to freedom. It was designed to provide a "smooth" transition to free labor, to guarantee an adequate labor force for the plantations, and to train the apprentices for the responsibility of free citizenship. Under these new conditions, the Afro-Barbadian community probably remained largely intact on the sugar plantations in the same housing that they had occupied during the time of slavery. This apprenticeship system, a source of constant friction between the plantocracy, freed peoples, and newly emancipated slaves, helped maintain a "stable" labor source and ensured the continuing cultivation of sugar.

Congregationalists Joseph Sturge and Thomas Harvey took note in their journals of the Afro-Barbadian community's living and working conditions during this transitional period from slavery to freedom. Sturge and Harvey wrote,

"...we met in this island [Barbados] a missionary...who informed us that the apprentices in the colony were in a wretched state. He considered the apprenticeship to be a complete failure. There was not and could not be a medium between slavery and personal freedom...Very little is to be seen of the true state of the population of the colonies in or near towns. The [Afro-Barbadians] are greatly frauded of their time" (Sturge and Harvey 1837: 4).

Their visit was the result of the Imperial Abolition Act in the British West India Colonies, and their investigation was provoked by erroneous statements received from the West Indies about the community's well-being. However their accounts, like many others of the day, lack detailed information about the healthcare practices of the Afro-Barbadian community.

During the Emancipation era, the typical living conditions for sugar plantation workers in Barbados were harsh, but they were fairly standard for agricultural workers throughout the Caribbean and elsewhere in the world during that time. In addition to a limited material world, Afro-Barbadian agricultural workers were also exposed to a variety of diseases and medical disabilities. Many diseases of the time were fatal, or caused severe pain, while other afflictions permanently scarred one's physical, mental, social, or spiritual health. Even with the availability of European medicine, the Afro-Barbadian community continued to experience serious shortcomings in local healthcare (Collins 1811; Handler 2006). Drawing on travelers' accounts and plantations records from the Emancipation era the following chapter examines what the Ridge site community at St. Nicholas Abbey may have experienced in terms of health care. The artifact assemblage from the site, when combined with the documentary sources, raises a number of important questions about Afro-Barbadian medical practices. How did healthcare evolve in Afro-Barbadian communities? Why was self-managed healthcare a necessity for the Afro-Barbadian

community? What ailments did they experience? Where did they receive treatment? Who were the medical specialists who treated them? What forms of medical treatment did this community receive? And most importantly, why was self-managed healthcare a necessity for the Afro-Barbadian community?

### **Plantation Healthcare**

“...in the course of their labour, they contract complaints, and fall off, yet, by repose and proper treatment, they soon recover” (Collins 1811: 42).

By the late eighteenth and early nineteenth centuries, planters began to take a more active role in the health of their enslaved workers. This was a result of pressure from the growing anti-slavery sentiment in Britain and concerns about the abolition of the slave trade in the British colonies, which eventually came in 1807. At Worthy Park Plantation in Jamaica, for example, historian Michael Craton (1976) examined the impact of ‘amelioration’ legislation on the health of enslaved populations in the British West Indies from about 1787. The legislation sought to regulate and standardize work load, food and clothing allowances, and medical care (Craton 1976). The amelioration acts also “encouraged” Afro-Caribbean women to bear children by offering rewards such as work relief, better garden plots, additional clothes, and better food. The passage of these amelioration acts and the rewards offered to childbearing women reflect attempts by the British government to meet the growing demands of British abolitionists and to help increase the likelihood of a future labor

force for planters in the Caribbean colonies. To what extent these amelioration acts were followed in Barbados is uncertain; however, research at the Barbados Department of Archives suggests that some measures were taken to improve the healthcare system of the time.

In the years following the apprenticeship system, several acts were passed in Barbados to help improve healthcare for the island's population (See Appendix A). The legislation included acts to inoculate people against small pox (Public Acts 1837-1841 Vict. No.12 pp. 195-196 from the Barbados Department of Archives), to establish and maintain a hospital for the reception and treatment of the sick poor (Public Acts 1837-1841, 3 Vict. No. 27 pp. 215-224 from the Barbados Department of Archives), to better care for "lunatics" (Public Acts 1837-1841, 3 Vict. No. 28 pp. 224-231 from the Barbados Department of Archives), and to grant money toward the construction and completion of a "lunatic" asylum (Public Acts 9 Vict. P.i. No.2 from the Barbados Department of Archives). Several acts even provided funds for the support and maintenance of the island's General Hospital in Bridgetown (Public Acts 9 Vict. No. 29, pp. 84-85 from the Barbados Department of Archives). The passage of these acts suggests that the British government along with the island's plantocracy sought to improve overall healthcare in the island. However, these acts, which should have led to improvements in healthcare, may or may not have had a positive effect on the Afro-Barbadian communities.

The amelioration acts and other acts passed from 1840-1847 were only guidelines. While the acts sought to standardize labor and basic necessities, they were window dressing used to mask from the British Government the challenging working and living conditions experienced in Barbados' healthcare. Conditions too were beyond the control of legislation and the lack of oversight reduced the quality of healthcare for the Afro-Barbadian community, especially children. According to Sturge and Harvey, "the mortality among the free children had been very great since 1834, particularly in the early part of the new era" (Sturge and Harvey 1837: 3, 4); numbers of epidemics of measles and other diseases occurred (Handler 2006), which would have required a greater need for better healthcare. However, Afro-Barbadian women, men, and children were most likely denied proper medical attention and would have been forced to rely on their own forms of treatment to relieve ailments

Plantation owners and their managers realized that their source of labor (the African slave trade) was coming to an end, and now, in order to efficiently run their businesses and to ensure a healthy and stable labor force, some form of healthcare had to be provided to the plantation workforce. Yet, anthropologist Jerome Handler, who has studied the history of the enslaved population of Barbados extensively, argues, "the Barbadian slave code ignored the medical care of slaves as well as housing and food" (Handler and Lange 1978: 97). Handler (1978: 97) further notes that, "any such law would probably not have been enforced

with any regularity or consistency.” In the case of St. Nicholas Abbey, the law must not have been enforced with regularity or consistency. The material culture gathered from the Ridge site suggests that the community not only was provided with housing (remains of stone foundations) and food (ceramic wares, faunal material, wine bottles); but also had access to European forms of medication (ointment jars and pharmaceutical bottles). Even with these medicines, the community of the Ridge site still had their own means of treatment. One way or another, archaeological interpretation shows that this community was taking initiative to heal themselves; but from what?

### **The Possible Ailments**

“...fevers that vex, but seldom destroy; inflammations of the eyes, venereal complaints, itch, scurvy, yaws, and Guinea worms, all of which are, in general, tractable enough, the yaws...proves incurable by any medicine that can afterwards be administered...they are thrown into fluxes and dropsies, two of the worst diseases, and almost the only fatal ones...the principal disorders in the West Indies are fevers and fluxes, and those, by which death usually accomplishes his business...” (Collins 1811: 47).

The sugar plantation was a large scale agricultural and manufacturing industry with a work force typically of 100 laborers that could expect to produce over 80 tons of sugar per year (Dunn 1972). For six days a week, enslaved workers labored long and exhausting hours in the hot tropical sun. The standard work day was ten or eleven hours, but around harvest they would have labored much longer for seven days a week (Dunn 1972). In order to run sugar plantations smoothly, laborers



were needed to plant and care for the cane fields by constant weeding and fertilizing. During harvest the ripe canes were cut by hand with curved knives called “bills” and then stalks of cane were bundled into ox carts to bring to the mills for grinding (Smith 2005). The very acts of planting and harvesting were extremely labor intensive and exhausting which led many slaves to heat exhaustion and dehydration.

Grinding the harvested cane in the mills was a dangerous job—laborers limbs could get caught in the rollers and would have to be amputated. The mill laborers fed cane through one set of rollers to a second set of rollers where the cane juice went through pipes leading to a cistern located in the boiling house. Here, the cane juice would evaporate and crystallize into sugar through a series of copper pots where impurities were gradually skimmed off the top by laborers who had to endure immense heat. After the sugar dried in the cure house, the molasses that was drained from the sugar molds would go through the distillery for converting the molasses into rum. Finally, laborers would have to store barrels of sugar and rum in the store house until they could be shipped to England (Smith 2005). These extreme working conditions would have worn down their bodies’ natural defenses allowing for a number of illnesses.

Enslaved people at St. Nicholas Abbey, as well as other plantations in Barbados and other parts of the Caribbean, suffered from a variety of maladies that shaped the health of plantation populations. “Malnutrition,”

according to Handler, “seems to have been the most widespread among the slaves,” (Handler and Lange 1978: 98). Widespread malnutrition in this community would have resulted in protein, vitamin, and iron deficiencies from poor diet. The laborers diet was meager and consisted of starchy foods such as corn, plantains, beans, and yams, supplemented by rum, contaminated drinking water, and in rare cases meat. Most planters, according to historian Richard Dunn, spent considerably less than 2 pounds per annum to feed and clothe a slave (Dunn 1972: 248). If St. Nicholas Abbey was typical, the low caloric intake of the men, women, and children on the estate, when combined with the hard work regimen, would have made laborers vulnerable to a variety of diseases.

Many of the diseases that hit plantation communities were highly contagious. Handler (2006), who wrote extensively on diseases and medical disabilities of enslaved Barbadians, gives excellent descriptions of the symptoms of each disease and disorder. Colds, chicken pox, croup, consumption, diphtheria, dropsy, dysentery, elephantiasis, influenza, leprosy, measles, mumps, pneumonia, smallpox, tuberculosis, typhoid, venereal diseases, yaws, yellow fever, and whooping cough were among the many disorders that impacted enslaved communities (Collins 1811; Handler 2006). These were highly infectious diseases that would have easily been transmitted from person to person within the village. Common symptoms associated with these diseases would have been fevers, sweats, chills, jaundice, aches, pains, gastrointestinal pains, loose bowels,

bloody stool, nausea, vomiting, delirium, burning sensations, and falling pulse.

Along with disease there were insects, parasites, and other animals on the island that could have spread illnesses. Filarial roundworms, which are passed through mosquito bites, were the cause of filariasis or “Barbados leg,” (today known as elephantiasis), which was a debilitating illness that deformed the body and left painful liaisons. Other vectors of disease included chigoes, lice, scabies, mites, flies, centipedes, and parasitic worms (the Guinea worm and the hook worm) (Collins 1811; Handler 2006). These pests would have furthered the spread of disease, and further malnourish the community.

Lead poisoning, alcohol-related illnesses, traumas, physical and mental disorders, and possibly drug abuse associated with European medicines containing opiates compounded the ailments brought by malnutrition and disease (Collins 1811; Corruccini et. al. 1987; Handler and Lange 1978; Smith 2005; Smith 2008; Handler 2006). Malnutrition exacerbated diseases and disorders among the Afro-Barbadian communities (Sturge and Harvey 1837; Handler and Lange 1978; Handler 2006). Protein malnutrition led to kwashiorkor and marasmus, vitamin deficiencies led to pellagra and beriberi, and iron deficiencies caused anaemias (Handler 2006). These would have further led to a number of dental pathologies, such as periodontal diseases, hypercementosis, and enamel hypoplasia, which, for example, have been identified in the

skeletal remains of enslaved peoples excavated at Newton Plantation slave cemetery (Handler and Corruccinni 1986). Malnutrition would have been especially hard on pregnant women. From the limited knowledge of obstetrics (Handler and Lange 1978; Handler 2006), the unhygienic conditions in which women lived and were treated (Collins 1811; Sturge and Harvey 1837), their generally malnourished state, and the harsh conditions of working the plantations, one can gather that women would have been extremely vulnerable to any number of ailments. They would have experienced any number of gynecological issues such as: menstrual cycles, menopause, sterility and low fertility, miscarriages, still births, premature births, hemorrhaging, infections at delivery, and even death in childbirth. Barry Higman (1984) argues that fertility rates of women on sugar plantations were particularly low when compared with other plantations' producing crops.

His argument is based on his demographic analysis of slave population in the Americas and enhances our understanding of the developing need for healthcare in the British Caribbean. In his study, Higman found a continuous decrease in the slave population of the British Caribbean, from 775,000 in 1807 to 665,000 in 1834. He argues that there are some significant regional variations that can be traced to, "the contrasting physical and economic environments in which slaves were forced to live" (Higman 1982: 40). The principal factor underlying these regional variations he found was the relative dominance of sugar, in which

Barbados was a large player. From the exhaustive work load laborers on the sugar plantations endured to the poor diet they were given, fertility rates would have been low and death rates exceedingly high for these communities. The enslaved community at St. Nicholas Abbey was probably exposed to a variety of ailments. Yet, where were they treated? Who attended their medical needs? And what remedies were at their disposal?

### **Places of Treatment**

“It is necessary to have a building set apart, on every plantation, for the reception of the sick, which is called, the hospital, or the sick-house...”  
(Collins 1811: 217)

In the late eighteenth century and early nineteenth centuries, plantation hospitals or sick-houses were common places of health treatment in Barbados, especially on medium to large estates (Handler and Lange 1978). The quality of hospitals ranged from “horrid unhealthy hole” (Newton Papers 523/290; Handler and Lange 1978) to “there is a good hospital on almost every estate, which is generally clean well-ventilated building” (Barbados Council 1824:109; Handler and Lange 1978). Although the plantocracy assumedly devoted greater attention to the Afro-Barbadian community in the early nineteenth century, the level of medical treatment would have been far different than it is today.

According to Collins, the sick-house or hospital, “should be as near as possible to the dwelling house, to leeward of it, but with the door

directly in view, so that nothing of consequence can be transacted there, without its being heard by the proprietor, or his manager” (Collins 1811: 217-218). However, such structures may have been seen as a nuisance to the planter class. Hospitals and sick-houses were filled with sounds, smells, and scenes of disease; not the most pleasing sight to view from one's home. Collins (1811: 218) suggests that the facility should be placed in view of the main house, but far enough away so, “that not a sigh, nor a cough, nor a groan, should issue there from, without reaching the ears of those from whom relief ought to come...”. On small estates, the family kitchen served the purpose. “If the gang of [workers] be a small one...the dressing of their victuals may be performed in the family kitchen...” (Collins 1811: 228). Yet, what facilities did the Afro-Barbadian community of the Ridge site have had at their disposal? Although documentary evidence concerning maladies and healthcare on the estate are lacking, the archaeological evidence raises some provocative questions.

St. Nicholas Abbey ultimately came to encompass 409 acres by the early nineteenth century; and has remained a single, undivided plantation since that time (Handler 1989: 42). According to Sean Devlin's demographic analysis of the St. Nicholas Abbey enslaved population in 1834 (See Devlin 2008: Figure 8) there were roughly 183 people who made up the enslaved community on the estate. There were 107 women and 76 men. According to Collins, “from fifteen to twenty-five is an age fit for immediate service” (Collins 1811: 42). There were roughly 57 younger

persons under the age of 15, approximately 23 boys and 34 girls. Judging by the acreage and the number of enslaved people on the estate, St. Nicholas Abbey would have been considered a rather large sized plantation in Barbadian standards of the time (Handler and Lange 1978). This suggests that the property may have had a hospital or sick house to support the medical treatment of this community; if this was not the case, then possibly the family kitchen as suggested by Dr. Collins. Nonetheless, material culture associated with medical activities was found within the domestic context of the village site on the Ridge suggesting that the people who lived there were treating themselves within their own homes. But who else would have had the opportunity to provide healthcare to this community?

### **Who cared for the sick?**

Since the mid-seventeenth century, doctors have played a role in the lives of the Afro-Barbadian community by providing medicines and performing various medical services, including administering inoculations (Lignon 1657; Orderson 1842; Sheridan 1974; Handler and Lange 1978). Both apothecaries and “physicians or surgeons” were employed on the plantations (Collins 1811; Handler and Lange 1978). Yet, with the decline in sugar prices in the late eighteenth and early nineteenth centuries, plantation owners and managers were forced to cut corners. A way suggested by Collins was to reduce the number of rounds made by plantation doctors:

"I must therefore urge it...never to think of employing a medical man by the job, instead of by the year; for the latter is undoubtedly the cheapest way...But, whatever be the premium given to the doctor, he should be engaged under the condition of attending at all times when required; besides his stated times of visiting, and in all cases, whether medical, surgical, or of midwifery, that you may not be tempted to postpone having recourse to advice, from a reluctance to pay the fee, which, in extraordinary cases, is pretty considerable, but would be small, if previously so arranged by the contract" (Collins 1811: 210, 211).

Another way of cutting healthcare costs was to have the plantation manager himself learn the ways of European medicine. This practice was seen not only as a way to reduce plantation expenses and ensure a healthy and productive labor force, but it was also more efficient than waiting for an island doctor to arrive (Collins 1811). Since the manager had frequent contact with the Afro- Barbadian community, and a doctor was not readily present, the manager would have had the ability to act quickly in the case of medical emergencies, which reduced mortality rates of the plantation labor force and reduced the need for a costly doctor. In addition to doctors and the self-taught plantation manager, enslaved men and women on estates also took the opportunity to learn and practice European medicine. According to Collins, these men and women were taught the practice of "bleeding," (a treatment of the time where the patient was literally bled out of their ailment), spreading of plasters, dressing of sores, weighing and compounding common drugs (See Appendix C), and teeth extraction. From the pages of Dr. Collin's manual he describes the dissemination of knowledge from a European doctor to an Afro-Caribbean:



“...who is not too far advanced in years, may with few lessons, which the doctor, for his own case, will readily impart, learn how to use the lancet. As to the extraction of teeth, that also may be acquired, by a little instruction from one who already possesses the art; by observing the manner in which it is effected, and by practicing on the jaw of some dead animal, first freed from the covering, and afterwards with the skin and the flesh on, before he proceeds to operate on the living subject. It should, however, be with an express injunction, not to attempt any tooth that is difficult to be got at, or where it is corroded to the gum, so as to oblige him to apply the instrument in a manner to endanger the jaw-bone.” (Collins 1811: 213, 214).

This excerpt from Collins is fascinating; not only does it suggest a dialogue of medical knowledge from one culture to another, but it also shows that these communities could possess this knowledge for their own use. Another opportunity for enslaved peoples to learn European medicine was through the position of the sick nurse and midwife.

“Every estate ought to have one or more sick nurses, according to the number of [laborers(?)], who are to live in the hospital, and be devoted entirely to the service of the sick” (Collins 1811: 221, 222).

Sick nurses and midwives were typically older women who were unable to bear children or work in the fields (Handler and Lange 1978). These women were instructed by doctors in the use of the simples of the country, the dressing of sores, and the dosage of different medicines (Collins 1811).

The following is a description of the midwife’s duty in the time of labor:

“When the pains of labor come on, they will require the service of the midwife, one of which you ought to have of your own, as no estate should be without one. Any elderly, sensible, prudent woman, who has borne children, may easily be instructed in the art of delivering others. A few lessons from any gentleman of the faculty, or even from one of her own sex, will qualify her sufficiently for your purpose” (Collins 1811: 137).

According to primary documents from St. Nicholas Abbey (See Appendix B), the majority of the enslaved community was women; suggesting that women may have played one of the leading roles for healthcare within the Ridge site community.

The community may have also been treated by specialists who practiced the African-oriented spiritual healing arts of obeah. Obeah men and women were sought after for their abilities in divination, proficiency at diagnosing and healing ailments, and spiritual powers to heal their patients and harm others. Obeah practitioners had different specialties, such as making charms for protection against illness or harm, warding off evil, bringing prosperity, or skilled in the use of plant medicines (Bilby and Handler 2004). These practitioners had considerable spiritual knowledge, and may have used their knowledge, and the symbolic capital it bestowed, for social and economic gain (Bilby and Handler 2004). However, these specialists had to practice their art in secret because of its negative connotations perceived by the plantocracy (Bilby and Handler 2004). Nonetheless, obeah women and men played positive spiritual and medicinal function within the community. The skills of obeah specialists provided yet another source of healthcare for the enslaved community. Although, there is no clear evidence of the practice of obeah occurring at the Ridge site, there is mention of its practice in Barbados (Sturge and Harvey 1837; Handler and Lange 1978; Bilby and Handler 2004; Smith 2005). The people who lived at the Ridge site likely had easy access to

obeah practitioners, and they may have treated men, women, and children in this community.

So far, how healthcare has evolved in Afro-Barbadian communities, the kinds of ailments that they encountered, the possible locations they practiced healthcare, and who were in charge of healthcare on the plantation have been discussed. But what forms of medical treatment were available for the laborers? Using primary sources, as well as secondary literature concerning healthcare in Caribbean contexts, both European and African forms of medical treatment were available.

### **European Medicine**

“The most nauseous drugs, unless of the emetic tribe, seldom ruffle the stomachs of [Afro-Caribbeans], or dispose them to vomit. Bark they retain in almost any quantity, and their bowels resist the most drastic purges, without suffering much inconvenience. I have given for the tap worm, ten grains of calomel, and twenty-five of gamboges...occasioning one puke, or more than four or five motions of the belly” (Collins 1811: 200, 201).

During the early nineteenth century, there were European-trained doctors, and other medical practitioners, who were occasionally employed by the plantation managers to oversee and treat medical issues (Collins 1811; Handler 2006). Doctors purged, bled, blistered, gave patients inoculations in the prevention of epidemics, and administered medications (Collins 1811; Craton 1976; Handler 2006). Quite often, these doctors and practitioners provided superficial service (Collins 1811; Handler 2006). Plantation doctors treated the enslaved differently from whites:

“It will be observed, that in the treatment of [Afro-Caribbean] disorders, I have frequently departed from the rules laid down by European practitioners; and that has been done, as well as from a regard to the peculiarities of their constitutions, as to their general habits of life, which neither require, nor admit of the refinement practiced with respect to white patients” (Collins 1811: 215).

This attitude generated an apparent social distance and distrust between the Afro-Barbadian community and European medical practitioners.

European medicine, as many scholars have observed, was of low quality; often times aggravating the very illness it was meant to treat. Prescription medicines, such as those that would have been stored in pharmaceuticals bottles, were often the cause of such irritations.

Bottled forms of self-medication usually contained ethyl alcohol, opiates, cocaine, and other dangerous chemicals in ample quantity (Griffenbaghen and Young 1959; Watson 1965; Fike 1987). These medicines “promised” to provide a speedy cure for any ailment associated with venereal diseases, gastrointestinal problems, discomfort associated with menstration, influenza, consumption, and many other maladies (Griffenbaghen and Young 1959; Watson 1965; Fike 1987). Though sold at higher prices than traditional herbal remedies, these bottled forms of medicines were often made from cheap ingredients and their composition, although successful sometimes at relieving pain, had addictive qualities. The presence of these bottled forms of medicine at the Ridge site raises important questions about healthcare in Barbados during the transition from slavery to emancipation.

The constant use of these bottled pharmaceuticals may have led to lethal addictions, overdoses, and painful withdrawal symptoms. Doctors made indiscriminate use of pharmaceuticals that often contained two dangerous ingredients, mercury and opium (Craton 1976). Mercury had some success in treating 'the pox', but its use over time caused crippling side-effects to many areas of the body, especially the brain. Opium, on the other hand, successfully masked pain, but it is terribly addictive. Withdrawal symptoms from opium addiction are considered by healthcare specialists to be among the worst in the world. Yet, while these pharmaceuticals may have offered some health-related benefits to Barbadian workers, mercurial and opiate based medicines were relatively expensive products and, therefore, unlikely to have been used on a regular basis. Instead, the use of inexpensive and harmless herbal remedies would have been preferred (Griffenbaghen and Young 1959; Watson 1965; Craton 1976; Fike 1987). Many of the pharmaceutical bottles recovered from St. Nicholas Abbey, as well as other sites in the Caribbean, may have been reused and recycled for local remedies once the original contents finished (Wilkie 2000).

### **Local Flora and Obeah**

In the event that European medicine could not relieve the community of their ailments, the making of medicines from local flora and the practices of obeah provided an alternative option (Handler and Jacoby

1993; Bilby and Handler 2004; Handler 2006). The practice of obeah involved healing and protection activities, which were accomplished through the manipulation of material objects and local flora (Handler 2006). Obeah healing practices, based in African spiritual beliefs and medical knowledge, embraced the curative abilities of local flora and fauna and the medical practices of European practitioners and their treatments.

Jerome Handler and JoAnn Jacoby (1993) examined the medical knowledge of enslaved peoples of Barbados and the use of remedies made from local plant resources. They argued that enslaved peoples in Barbados handed down to each generation a pharmacopeia of local plants that could be mixed and administered within the practice of obeah (Handler and Jacoby 1993). They outline the medical plants used by enslaved peoples in Barbados that would have been part of the community's pharmacopeia. Such medicinal plants and their treatments include aloes (used for burns and rashes), the Barbados nut (for dropsical disorders or fresh wounds), plantains (eye inflammations and fevers), gully root (for obstructions), and the bearded fig tree (used as an antidote for poison) (Handler and Jacoby 1993). The use of these medicinal plants, along with the practice of obeah would have been the community's arsenal against ailments that they experienced.

The use of these local plant remedies and obeah would have been used if European medicine proved ineffective, which was often the case (Collins 1811; Handler 1978; Handler 2006). However, obeah cures would

have been sought for uncommon ailments, associated with poor spiritual or mental health, which European medicine would be unable to cure (Fisher 1946). Barbadian planters saw the practice of obeah as a threat to the stability of the island and dismissed its medical value. Within the context of women's health, Collins writes of women inducing miscarriages by their own "art":

"Abortions, excited by the art of the [Afro-Caribbean] herself, arises from her considering pregnancy as an evil, and children as incumbrances; therefore in order to obviate the one, and to get rid of the other, they endeavour to obtain a miscarriage, either by such violences as they know to be generally effectual, or by some of the simples of the country, which are possessed of forcible powers of expulsion" (Collins 1811: 134).

By the early decades of the nineteenth century, Christian missionaries began to arrive on the island (Collins 1811; Sturge and Harvey 1837).

When talk of emancipation increased, the plantocracy strongly emphasized the negative aspects of obeah (Bilby and Handler 2004).

These accusations distorted obeah's positive role within the Afro-Barbadian community and in 1806 it became a felony for anyone to practice obeah. Those caught practicing obeah could be executed or deported to another island (Bilby and Handler 2004). The anti-obeah legislation was repealed in 1842, but the plantocracy had demonized obeah, which may have led many to forget the positive aspects of obeah healing practices (Bilby and Handler 2004). This may have caused a great number of obeah practitioners to abandon this avenue of medical

treatment, and forced the sick to seek western medical treatments, such as bottled pharmaceuticals.

Nonetheless, the forms of medical treatment that the Afro-Barbadian community could have provided for themselves were effective and probably safer in treating their ailments than the European forms of medicine. Considering the several centuries of oppression from the plantocracy, poor health conditions, poor medical treatment, and the great number of ailments that they could have experienced, enslaved and newly emancipated laborers in Barbados would have had to rely on local curatives and medical practitioners (sick nurses, midwives, obeah men and women) for healthcare. In the case of the Ridge site community at St. Nicholas Abbey, they may have had access not only to European medicine, but they probably also has access to a variety of medicinal plants found within the gullies surrounding the estate (See Figure 4). According to Handler and Bilby (2004) gullies possessed plants that were used to remedy a variety of different ailments. The people who lived at St. Nicholas Abbey may have sought to remedy their ailments through their own means of treatment.

Within this chapter a number of questions have been raised about the health treatments of the Ridge site community at St. Nicholas Abbey. However, the focus of this thesis is the artifact assemblage from the site, specifically the large amount of pharmaceuticals found within test unit 12. How can these bottles be interpreted within the archaeological record?



The following chapter will explore this question by putting these bottles to use for medicine and spirituality.

### CHAPTER III: PUTTING BOTTLES TO MEDICINE AND SPIRITUALITY

“Too often ‘material culture,’ the term by which anthropologists refer to the concrete expressions of culture in tangible objects, is seen as divorced from the world of values, ideas, beliefs, and behavior. But it is through such material representations of culture that people relate to each other, express themselves and their values, interact, and carry out their activities.” ~Sidney Mintz *Caribbean Transformations* 1974: 231

“It would seem appropriate for archaeologists to lead this charge: armed with the tangible evidence of everyday materialism in a vast range of social and historical contexts, archaeology is distinctively positioned to confront the multivalent meaning of goods, probe the ideological roots of material symbolism, and emphasize that even the most commonplace objects provide insight into meaningful social struggles.” ~ Paul R. Mullins 2004: 200

Paul R. Mullins (1999: 35) notes that many archaeologists have not yet begun to explore the ideological values behind material culture (see also Agnew 1994; Appadurai 1986; Bourdieu 1984; Douglas and Isherwood 1978; Miller 1987). This situation is rather odd given that archaeology has put itself in a position to confront the multi-vocality of material culture (Beaudry et. al. 1996). In order to better interpret the multivocal nature of material culture, this thesis embraces the work of Pierre Bourdieu (1977, 1990) as a means of understanding material culture through the construction of a community’s identity and their agency. This understanding is accomplished by looking at the relationship between material objects that the community left behind and their cultural beliefs. While Bourdieu’s model of the individual and broader society makes interpreting the individual difficult, the micro-scale levels of archaeological contexts do shed light on individualism. The Ridge site, representing

domestic activities, provides an excellent location to explore the meanings of pharmaceutical bottles within an enslaved community of Barbados.

According to Bourdieu's concept of habitus, artifacts are recognized as situated within cultural negotiations and infused with meaning. Thus, archaeology provides a powerful arena in which to explore these meanings. Nonetheless, the application of habitus is not without its drawbacks. The actors within Bourdieu's theoretical framework (1980) are largely unconscious of the relationship between their actions and the broader cultural landscape; leaving the notion of community agency limited. Sheri Ortner (1996) and Laurie Wilkie (2000) have recognized this aspect of Bourdieu's work, but they also recognize that despite the constraints of the individuals' cultural contexts, individuals still possess the ability to act as agents within these limitations. But what possible meanings could the pharmaceutical bottles recovered from the Ridge site possess? These pharmaceutical bottles represent both secular and spiritual aspects of community's healthcare practices. Yet, when is the presence of a pharmaceutical bottle in the archaeological record representative of spiritual practices as opposed to more utilitarian purposes or just trash?

In the search for multiple meanings of material culture, archaeologists have questioned simplistic interpretations that have failed to deal with the complex life ways of African-American communities. The topic of religion and ritual has been actively studied within the archaeology

of the African Diaspora, and archaeologists have been able to interpret objects like pharmaceutical bottles and ointment jars as more than simply mundane materials by studying their context within the broader archaeological record and their relationship to other materials (Leone and Fry 1999; Reeves 2009; Samford 1999; Wilkie 1997). Buried caches of goods, modified items (coins, shells, animal bones etc.), and pharmaceuticals (ointment jars and bottles) suggests strongly that enslaved people medicated themselves physically and spiritually (Edwards-Ingram 2005; Leone and Fry 1999; Samford 1999; Wilkie 1997).

Matthew Reeves, for example, conducted archaeological excavations at an early nineteenth century site located in the slave settlement of Juan de Bolas plantation—a coffee plantation in Jamaica occupied from 1799 through emancipation in 1838. In terms of its location and artifact assemblage, the site is very similar to the Ridge site at St. Nicholas Abbey. Reeves examined the presence of glass bottles within a feature located beside a house area at the settlement. He described the stratigraphic context for these bottles in detail and how this context was used to determine their significance as either intentionally placed meaningful objects or as mundane objects that ended up in the context as secondary refuse. Excavations of the house area revealed the presence of two bottles set into a defined feature within the yard of the house area. This feature was located along the edge of an area of postholes that defined a porch of a structure that was abandoned by the late 1820s. Its

yard surface and house features were located below a trash and wash deposit dating to the late 1820s-1830s. The yard surface from which the bottle feature was defined was characterized by a scatter of smaller artifacts that were rendered into the yard floor by “foot traffic” (Reeves 2009). The feature was located below this occupation surface and intruded into an earlier midden deposit dating to the 1810s.

What was unusual about the bottle located in this feature was it was placed upright in the northwest corner and filled with charcoal and a white residue in the bottom of the vessels that Reeves interpreted as lime (Reeves 2009). Once the feature was completely excavated, a circular soil stain was revealed, and it contained an aqua-tinted pharmaceutical bottle whose neck and finish was missing. Given the fact there were no other charred wood concentrations found in the vicinity of the two bottles, Reeves was confident to say that the charred material found within the bottles appeared to have been intentionally placed. In addition, Reeves believes that the fact the bottles were placed directly in the north corner of the pit is evidence of intentional placement (Reeves 2009). However, what made this feature a spectacular find was neither its context nor the excellent preservation of the bottles, but the individual who found them.

During Reeves’ fieldwork in Jamaica, a local man by the name of Linton Rhule served as Reeves’ main informant and assistant during the excavations. Rhule was a descendent of slaves who worked at Juan de Bolas Plantation during its time as a coffee plantation. After the bottles

were exposed, Reeves started to wonder their origin and Rhule suddenly declared that these objects were “Obeah bottles” (Reeves 2009). Reeves then realized that these were more than mundane bottles; rather they were keyholes to a belief system that still had ties with Jamaica today (Reeves 2009).

Reeves stressed in his presentation that, “to understand the combined significance of the bottle feature and its association with the descendent community, we must delve into its discovery both physical and spiritual” (Reeves 2009). Reeves explained that these bottles, when used for spiritual purposes, would be buried near gates, corners of houses, or in the middle of the yard. Such objects were placed to either hurt someone or alternatively for protection. For sites in Jamaica, there is a well-established tradition of conjure bottles known as “Obeah bottles” used for similar uses and often placed in concealed locations (Reeves 2009).

Reeves used examples from his work in Jamaica to relate his own personal experience in researching these sites and some of the inspirations and frustrations that stem from the lack of interpretation of material culture found within African-American contexts. I too have shared these same experiences and frustrations of my initial interpretations of these pharmaceutical bottles. Fortunately, there were some useful sources to help me put these bottles to medicine and spirituality.

Influenced by the research of Grey Gundaker and Judith McWille (2005), as well as the work of Ywone Edwards-Ingram (2005), I now see

that African-Americans embed meaning within material culture with their knowledge of both the past and present. People in the past knew that others could read messages implied in things and the landscape. African-Americans used and still use objects in the presentation of self that communicate possibilities to people within their own communities, who share similar beliefs and practices (Edwards-Ingram 2005; Gundaker 2005).

These practices include beliefs in “good medicine,” “bad medicine,” “preventive medicine,” and “curative medicine” (Edwards-Ingram 2005:39). According to Edwards-Ingram, “these communities’ practices were proactively directed toward keeping the individual in good spirit, pure in thoughts and deeds in sound strength, and in righting negative forces and actions” (Edwards-Ingram 2005:39). Their approach to medicine and spirituality are seen as a “double shield process”; the belief that causes and cures occurred by pairs (Edwards-Ingram 2005:40). Between good and evil a thin line is drawn; meaning that the spiritual forces could harm or heal. Thus in medicinal practices, these communities had to consider both spiritual and natural causes of illness and other ill fates (Edwards-Ingram 2005:40).

“In African America many kinds of signs have been used to diagnose, communicate with, and act upon the environment. This process reveals a great deal of information about a person’s inner and outer states, the physical and psychic climate of the community, and the condition of the materials themselves. This is evident in the roles materials play...” (Gundaker and McWilie 2005:43).

In their book, *No Space Hidden*, Grey Gundaker and Judith McWilie (2005:10), suggest that glass bottles associated with African-American contexts possess both “performative and interactive dimensions” within the household; specifically the “yard,” and are associated with spiritual expression, artistic creativity, healing, and protection. They argue, “certain yard workers are finding in materials and actions the ingredients of a metalanguage not reducible to speech or writing with which to comment on human action and take responsibility for directing its course” (Gundaker and McWilie 2005:12). According to their theory, “materials affect their surroundings for good or ill, particularly when they have been activated through choice, placement, and combination with other selected substances” (Gundaker and McWilie 2005:44). These bottles that are involved in “yard work” are more than just adornment and go further than treating ailments or being seen as a mere Africanism; when “activated,” or given special meaning, materials like pharmaceutical bottles possess the ability to deal with happenings in both the spiritual and mortal realms (Gundaker and McWilie 2005:12).

In the United States and the Caribbean bottles filled with nails, liquids, animal remains, and other substances were placed in yards, houses, fields, trees, walkways, and produce gardens. These bottles were visible objects used to dress these places, but these materials could also be buried in places like the threshold of a home as a form of protection from enemies (i.e. the plantation managers), or to encourage the growth of



healthy produce (Gundaker and McWilie 2005:48). Gundaker and McWilie also discuss how bottles can be used to separate wild from cultivated zones of landscape.

According to Gundaker and McWilie bottles often formed the borders in African American yards when stuck neck down into the earth. Because bottles previously served as containers, their reuse in the yard inherently involved transformation for a new purpose. Gundaker and McWilie (2005:114-117) note that the reuse of these bottles would have been ideal because of what the bottles had been used for and who had used them at the time the bottles were discarded—reusing these materials in the borders would give them histories that would in turn improve the landscape. African-Americans would transform the mundane objects of everyday life to the objects infused with spiritual powers of healing and protection.

In her 2005 dissertation, *Medicating Slavery: Motherhood, Health Care, and Cultural Practices in the African Diaspora*, Ywone Edwards-Ingram examines how the health and well-being of enslaved people were linked to broader issues of economic exploitation, domination resistance, accommodation, and cultural interactions. The historical and archaeological studies she reviews have shown that the living and working conditions of enslaved people were detrimental to their health. Building on these findings, she explores how aware African-Americans were of the detriments to their health and the pursuit of a better life, and what means

these communities employed to change the negative conditions imposed upon them by slavery. Edwards-Ingram, as with Gundaker and McWille, focuses on how the landscape and material culture were implicated in social relations by a comparative study on sites in Virginia with others in the Caribbean, including Jamaica and Barbados. Edwards-Ingram (2005:4) contends that, “slavery was an encompassing illness that blacks saw as imperative to medicate” and that enslaved people possessed diverse efforts to ensure health and well-being through constant cultural negotiations and the use of various materials.

Upon reviewing the literature, several possible interpretations are available for the presence of the pharmaceutical bottle fragments found at the Ridge site at St. Nicholas Abbey. One of the views of these bottles is in the secular sense, within the original contents of the bottles used for their intended purpose. However, the bottles could have just as well been reused for the home remedies and locally produced medicines (Wilkie 2000). Laurie Wilkie, for example, describes the complex process by which African-Americans retained their ties to a cultural past while renegotiating their identity as freepersons. Wilkie acknowledges that African-Americans recognized disease as the result of both spiritual and natural agents, and that they possessed their own pharmacopia for their treatment. In regards to the presence of European medicine (pharmaceutical bottles), she argues that African Americans would select specific commercial products that coincided with their traditional recipes in

ingredients, consistency, and use (Wilkie 2000). Wilkie claims that they gained greater economic freedom in the marketplace by choosing products that matched their medical needs.

Another way to interpret these bottles is in the spiritual sense, as in these bottles would have been used in the practices of obeah for protection and healing. Although there is no clear evidence from the Ridge site, these objects could represent the remains of “conjuring bottles” or “obeah bottles.” Perhaps some were concealed in sub-floor pits, root cellars, and buried in certain locations of the yard or house for spiritual purposes to protect the individuals who placed them there. These materials could have just as well been made into charms to be worn on the body or buried in pathways and other locations. When placed under a doorstep, a charm could “make all who came up the steps friendly and peaceable even if they should happen to be coming on some other mission.” (Edwards-Ingram 2005:42). The traditions of wrapping and tying in African-American culture have African parallels--these have been traditional ways of enclosing charms and or sealing intention (Gundaker 2005; Edwards-Ingram 2005). The ritualized use of certain substances enclosed by wrapping to place “strategic objects” (Gundaker 2005) was believed and is still considered a practice that has the ability to help or harm (Edwards-Ingram 2005:201). Medicinal materials, including cemetery earth, animal bones, and herbs, are wrapped together along with material instructions to direct their power. These were usually

enclosed in bundles or sculptured forms. In the Americas, wrapped objects were central to practices of “good” and “bad” medicine in,” (Edwards-Ingram 2005:201) hoodoo, voodoo, and obeah.

Still, another way to look at these bottles is a collection of bottles that have been saved from previous use or taken from trash piles around the main house of the property in order to be reused for various reasons (conjuring, to hold self made medicines, to be used as borders or decorations for walkways or yards). Like their descendants, enslaved people may have also reused these bottles to store seeds in and place the bottles under the house to keep the seeds viable for cultivation during planting seasons (Edwards-Ingram 2005:168). But a question arises with all three of these interpretations: why would these bottles have to be hidden?

In interpreting the African spiritual setting in the British Caribbean, one must consider the ever present surveillance and control of the plantocracy. Chris Fennell has discussed the ethnographic set of spiritual beliefs in the Caribbean with the constant surveillance by the plantocracy (Fennell 2007:92). For enslaved individuals, it would have been unwise to allow planters and managers to know about secret meetings. Therefore, the woodlands or gullies, fields, and the quarters would have been places to perform their practices discretely. To ensure these safe places to practice from plantation authority, African-Americans would strategically place these objects such as bottles around the home, yard, or even the

field (Gundaker and McWilie 2005:47). The plantocracy worried more about uprisings than about charms in the ground—although, these objects could be seen as a discrete form of resistance that allowed people to protect them without the slaveholder knowing.

For anthropologists, as well as the makers and users of these materials, archaeological assemblages should not be defined solely as discarded-accumulated waste, but rather as materials that articulated with cultural values and the presentation of self. The presence of such bottles--be it a concealed, spiritual niche or a cache for future reuse--is consistent with African-American traditions (Edwards-Ingram 2005; Gundaker 2005; Reeves 2009). In the end, the process of associating archaeological examples with specific spiritual practices is made possible by interpreting the bottles based on an existing set of oral traditions in the given regional area. Gundaker, Edwards-Ingram, Reeves, and Wilkie provide innovating concepts and ideas of how to interpret African-American material culture. The main idea that ties all of this research together is that the material culture associated with African-Americans, like pharmaceutical bottles, are not meant to be seen or understood by the casual observer—such things can only be truly understood through the eyes of the people who have faith in these beliefs and practices.

## CHAPTER IV: CONCLUDING THOUGHTS

The women, men, and children who once lived at the Ridge site at St. Nicholas Abbey witnessed the era of slavery and the days of freedom in Barbados. After Emancipation, many probably continued to live on the same land where they once toiled under the institution of slavery. Even though freedom was theirs, the social structure of the plantocracy prevailed; emancipation made for little improvement in their lives. The archaeological assemblage from the Ridge site sheds light on the healthcare conditions of life before and after emancipation, a period of time that has been largely neglected by archaeological investigations in the Caribbean.

Despite the establishment of public hospitals and grants for aiding in the care of the sick (See Appendix A) in the years after emancipation, healthcare for this community, like other aspects of their lives, probably remained roughly the same as it was during slavery. Still, during this period of time, the people of this community developed dispositions and beliefs in response to the determining structures and external constraints they experienced in their lives. Through this development, a number of socio-economic conflicts would have emerged, especially in terms of healthcare. These conflicts helped serve to keep these communities' voice passive when it came to the quality of their healthcare. However, these conflicts— unequal access to medical care in the white and black communities resulting from the racist ideologies of the white plantocracy—

could be transformed by the people of the Afro-Barbadian community into opportunities for modifying the practices of healthcare in new and creative ways. The active negotiation of social conflict could have enabled them to actively turn aside poor healthcare and develop and maintain their own forms of medical treatment through oral instruction by the experienced to successive generations; thereby fostering a continuing tradition of healthcare.

While a unique form of Afro-Barbadian healthcare is made apparent from the works of Bilby and Handler (Bilby and Handler 2004), it is hard to find the substances used in these traditional medicines (such as roots, leaves, and bark) archaeologically since the preservation of plant materials is poor; hence, the evidence that the people who lived at the Ridge site developed their own forms of medical treatment is circumstantial. Still, the materials within the assemblage that are related to healthcare activities do not suggest a distinctly Afro-Barbadian approach to medicine. The presence of European medicines (pharmaceutical bottles and ointment jars) suggests European medical control over the Afro-Barbadian community. Nonetheless, the presence of these medical related materials found within a domestic context of the Ridge site, suggest that this community secured some measure of self-determination; to freely pursue their own economic, social, and cultural development. These forms of self-medication (pharmaceutical bottles and ointment jars) also suggest that they were taking the initiative to self-medicate without

solely depending on the planters or doctors for medical care. Despite the bounded structures of European medical control, this marginalized community, living within an unequal labor system, was able to possess agency; making their own choices within the realm of healthcare.

In addressing the intentional placement of the pharmaceutical bottles, it is difficult to determine the exact context of these objects and the contents they once held. The absence of items that would have been contained within the bottle, the incomplete nature of the bottles, and the lack of spatial context within the household, it is difficult, if not impossible, to draw strong conclusions about the symbolic and spiritual nature of these objects like the interpretations presented by Gundaker, Edwards-Ingram, McWilie, Reeves, and Wilkie. However, the presence of these pharmaceutical bottles in the domestic context raises provocative possibilities that bottles were hidden and concealed after their secular use for long-term purposes to be eventually used for spiritual purposes. Unfortunately, there is no clear evidence linking these items to spiritual uses, such as bottled caches found by Mark Leone in Annapolis (caches of pins, bent nails, or crystals) or bottle features, such as those identified by Reeves in Jamaica. The bottles found at the Ridge site would not be visible to the casual viewer. The question that unfortunately can not be answered in this thesis is whether these bottles were purposefully placed or discarded.



We will likely never know whether these pharmaceutical bottles were placed for symbolic/spiritual purposes or placed as storage or trash, never intended for spiritual use. The lack of documentary evidence regarding spiritual practices in Barbados makes interpretation very difficult, though oral traditions may provide insight in the future. Still, presenting possible interpretations offers opportunities for the next archaeologist who encounters such finds in Barbados.

While going through the process of completing this thesis, I was able to explore possible explanations for the presence of pharmaceutical bottles at the Ridge site at St. Nicholas Abbey in Barbados. In all, the presence of material culture possibly associated with spiritual caches and features is something that cannot be forced. Archeologists must consider the particular cultural and archaeological contexts of artifacts in order to forge deeper interpretations. Critical analysis of the context in which “spiritual” objects are located must occur in order to enrich our interpretations. As many archaeologists have noted in the past (James Deetz 1993, 1996, Marley Brown personal communication 2009), we must examine material culture critically for placement, artifact context, and assemblage composition in order to identify physical manifestations of spirituality within the African Diaspora.

FIGURES



Figure 1 (Fragments of a white milk glass ointment jar)



Figure 2 (Sample of pharmaceutical bottle fragments)

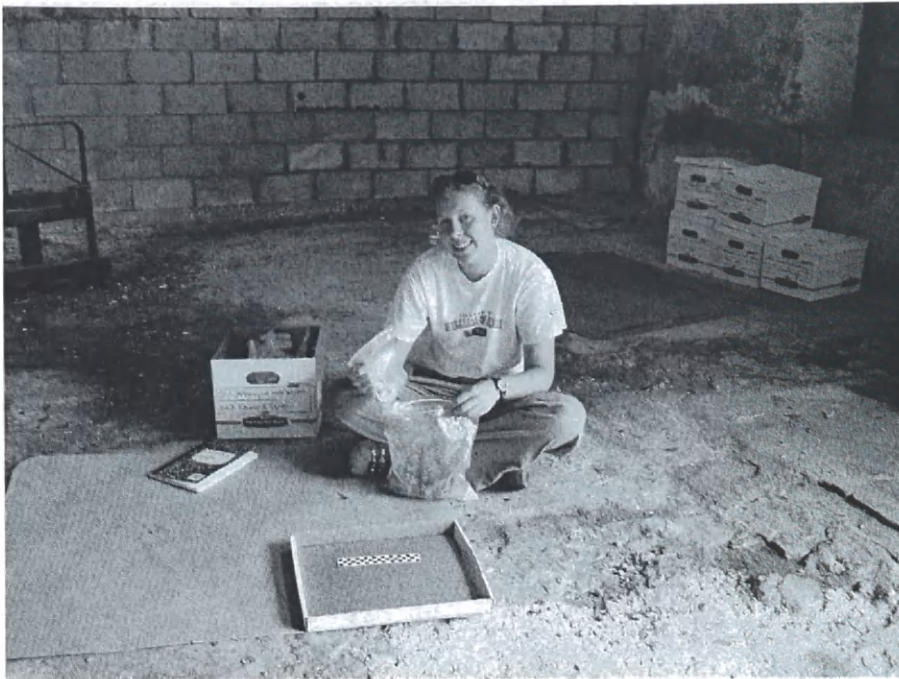


Figure 3 (Student assisting in the 2008 analysis of the Ridge site collection)



Figure 4 (The gully behind the main house of St. Nicholas Abbey)



Figure 5 (Dr. Frederick Smith from the College of William and Mary showing the 2008 field school the Ridge Site).



Figure 6 (Students from the 2007 field school excavating the Ridge site. This photo is courtesy of Dr. Frederick Smith).

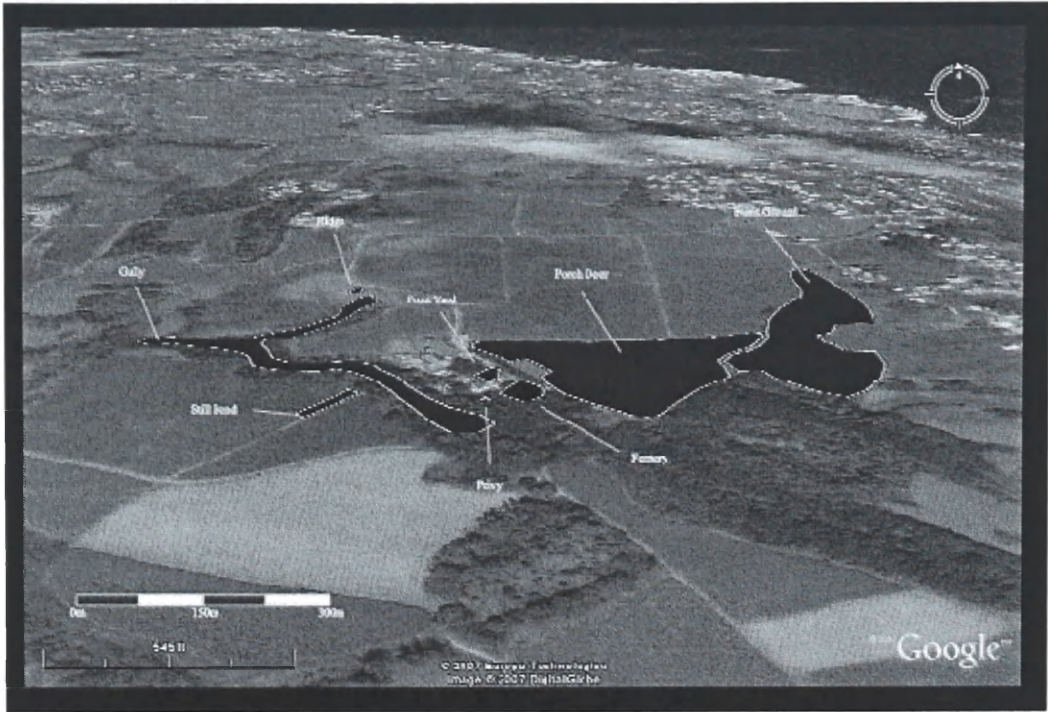


Figure 7 Satellite view of St. Nicholas Abbey Estate showing the Ridge site located NW of the main house (From GoogleEarth 2007).

APPENDIX A.  
ACTS PASSED IN BARBADOS LEGISLATURE RELATED TO  
HEALTHCARE (1840-1847)

- 1) January 8<sup>th</sup>, 1840—Act to prevent the dissemination of small pox in this island (Barbados) by inoculation (Public Acts 1837-1841 Vict. No.12 pp. 195-196 from the Barbados Historical Archives).
- 2) June 4<sup>th</sup>, 1840—Act for incorporating the “Members of a society,” formed for the establishment and maintenance of a hospital, for the reception and treatment of the sick poor (Public Acts 1837-1841, 3 Vict. No. 27 pp. 215-224 from the Barbados Historical Archives).
- 3) June 4<sup>th</sup>, 1840—Act for the better care and maintenance of lunatics (Public Acts 1837-1841, 3 Vict. No. 28 pp. 224-231 from the Barbados Historical Archives).
- 4) November 30<sup>th</sup>, 1842—Act for granting a sum of money in aid of the “Ladies Association” for the relief of the indignant sick and infirm (Public Acts 6 Vict. Pc. ii. 5 from the Barbados Historical Archives).
- 5) August 15<sup>th</sup>, 1843—Act for granting to the Trustees and Directors of the “Barbados Hospital Society for the relief of the sick poor” a certain sum of money apportioned to this island (Barbados) out of the Reserve Fund of slave compensation (Public Acts 7 Vict. No.1 pp. 1-3 from the Barbados Historical Archives)
- 6) May 1<sup>st</sup>, 1844—Act for granting a sum of money for the purchase of furniture, bedding, and other articles for the use of the General Hospital of this island (Barbados) (Public Acts 7 Vict. No. 18 pp.26-27 from the Barbados Historical Archives).
- 7) July 26<sup>th</sup>, 1845—Act for granting a further sum of money to complete the buildings and enclosure of the lunatic asylum, and furnishing the same (Public Acts 9 Vict. P.i. No.2 from the Barbados Historical Archives).
- 8) January 24<sup>th</sup>, 1846—Act to provide for the care and maintenance of persons afflicted with Leprosy (Public Acts 9 Vict. No. 18 pp. 68-72 from the Barbados Historical Archives).
- 9) June 17<sup>th</sup>, 1846—Act for granting a certain sum of money towards the support of the General Hospital of this island (Barbados) (Public Acts 9 Vict. No. 29, pp. 84-85 from the Barbados Historical Archives).
- 10) April 12, 1847 and November 10<sup>th</sup>, 1847—Act for granting a certain sum of money towards the support of the General Hospital of this island

(Barbados) (Public Acts 10 Vict. p.v. No. 23 from the Barbados Historical Archives).

APPENDIX B.  
LIST OF NAMES OF THE ENSLAVED PEOPLE AT ST. NICHOLAS  
ABBEY (1834)

Public Record Office. T71/563

Folio 54 Page 28 - Folio 59 Page 30

*Return of Thomas S. Harding of Slaves the Property of  
L.T. Cumberbatch (decd) to which he is Manager  
[St. Nicholas Abbey]*

Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Male	Female					Domestic	Labourer
1			Dick	27	Black	Barbadian		L
1			Eusan	27	Black	Barbadian		L
1			John Thoney	45	Coloured	Barbadian		L
1			Thomas	28	Black	Barbadian		L
1			James	77	Coloured	Barbadian		
1			William	29	Black	Barbadian		L
1			Peter Barrow	45	Black	African		L
1			James	54	Black	African		L
1			Charles Henry	33	Coloured	Barbadian	D	
1			John Hope	30	Black	Barbadian	D	
1			Isaac	35	Coloured	Barbadian	D	
1			Tom Richard	37	Black	Barbadian	D	
1			Billy	53	Black	Barbadian		L
1			Africa	52	Black	Barbadian	D	
1			Lil Africa	32	Black	Barbadian		L
1			Jack Straker	38	Black	Barbadian		L
1			Money	29	Black	Barbadian		L
1			Eub	40	Black	Barbadian		L
1			Lil Toney	38	Black	Barbadian		
1			Andrew	36	Black	Barbadian		L
1			Sammy	32	Black	Barbadian		L
1			Fanyah	52	Black	Barbadian		L
1			John	31	Black	Barbadian		L
1			Budjoe	47	Black	Barbadian		L
1			Jack Groom	45	Black	Barbadian		L

*Barbados Slave Register 1834 Volume 11 pp.54-59 [fo.28-30] St. Nicholas Plantation 3<sup>d</sup> March 1834*



Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Male	Female					Domestic	Labourer
	1		Famerlane	62	Black	Barbadian		L
	1		Anthony	29	Black	Barbadian		L
	1		Frank	72	Black	Barbadian		
	1		Providence	40	Black	Barbadian		L
	1		Tommy	49	Black	Barbadian		L
	1		Sam Davis	42	Black	Barbadian		L
	1		Bufsoe	31	Black	Barbadian		L
	1		Lundy	31	Black	Barbadian		L
	1		Will	29	Black	Barbadian		L
	1		Billy Ishmail	29	Black	Barbadian		L
	1		Ben Cummins	22	Black	Barbadian		L
	1		Abraham	27	Black	Barbadian		L
	1		John Gift	28	Black	Barbadian		L
	1		Richard	25	Black	Barbadian		L
	1		Harry Mingo	27	Black	Barbadian		L
	1		Jack Moll	19	Black	Barbadian		L
	1		St. John Goodridge	21	Black	Barbadian		L
	1		George	19	Black	Barbadian		L
	1		Robert	18	Black	Barbadian		L
	1		Sam	24	Black	Barbadian		L
	1		Lt Thomas Gibbs	20	Black	Barbadian		L
	1		Benny	23	Black	Barbadian		L
	1		Jack Ellick	14	Black	Barbadian		L
	1		Joe Edward	16	Black	Barbadian		L
	1		Prince William	17	Black	Barbadian		L
	1		Charles	15	Black	Barbadian		L
	1		Edward	10	Black	Barbadian		L
	1		Mirny	13	Black	Barbadian		L
	1		William Hope	12 <sup>3/12</sup>	Black	Barbadian		L
	1		Jack Bascom	16	Coloured	Barbadian		L

Barbados Slave Register 1834 Volume 11 pp.54-59 [fo.28-30] St. Nicholas Plantation 3<sup>d</sup> March 1834

Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Males	Females					Domestic	Labourer
1			Charles William	9 <sup>5</sup> / <sub>12</sub>	Black	Barbadian		L
1			Nutty Will	16	Black	Barbadian		L
1			Peter	18	Black	Barbadian		L
1			Ltl Tom Hurley	17	Black	Barbadian		L
1			Sam Henry	9 <sup>7</sup> / <sub>12</sub>	Black	Barbadian		L
1			Georgey	8 <sup>11</sup> / <sub>12</sub>	Black	Barbadian		L
1			Dickey Mingo	8 <sup>4</sup> / <sub>12</sub>	Black	Barbadian		L
1			William Henry	8 <sup>3</sup> / <sub>12</sub>	Black	Barbadian		L
1			John	8	Black	Barbadian		L
1			Ratta	8	Black	Barbadian		L
1			Ben Francis	9 <sup>3</sup> / <sub>12</sub>	Black	Barbadian		L
1			Ltl James	8 <sup>2</sup> / <sub>12</sub>	Coloured	Barbadian	D	
1			Bob Griffin	4 <sup>7</sup> / <sub>12</sub>	Black	Barbadian		
1			David	5 <sup>7</sup> / <sub>12</sub>	Coloured	Barbadian		
1			John Thomas	4 <sup>10</sup> / <sub>12</sub>	Coloured	Barbadian		
1			William Thomas	5 <sup>3</sup> / <sub>12</sub>	Black	Barbadian		
1			Laurence Trent	3	Black	Barbadian		
1			Jospek	2 <sup>7</sup> / <sub>12</sub>	Black	Barbadian		
1			Sammy	2 <sup>10</sup> / <sub>12</sub>	Black	Barbadian		
1			John Henry	2 <sup>9</sup> / <sub>12</sub>	Black	Barbadian		
1			James William	2 <sup>3</sup> / <sub>12</sub>	Black	Barbadian		
1			Natty		Black	Barbadian		
1			John Edward		Coloured	Barbadian		
1			Johnny		Black	Barbadian		
1			William Grannum		Black	Barbadian		
1			John Griffith		Black	Barbadian		
1			Bristol		Black	African		
1			Joe		Black	Barbadian		
1			Sam Fort		Black	Barbadian		
1			Phill		Black	Barbadian		

Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Male	Female					Domestic	Labourer
	1		Frank		Black	Barbadian		
	1		Little Sampson		Black	Barbadian		
		1	Peggy	62	Black	Barbadian	D	
		1	Geely	72	Black	Barbadian		
		1	Coobah	67	Black	Barbadian		L
		1	Gt. Margaret	47	Black	Barbadian		L
		1	Gracey	47	Black	Barbadian		L
		1	Polly Judy	42	Black	Barbadian		L
		1	Mary	44	Black	Barbadian	D	
		1	Sarah	42	Black	African	D	
		1	Coco	24	Black	Barbadian	D	
		1	Suki	21	Black	Barbadian	D	
		1	Mary	18	Coloured	Barbadian	D	
		1	Befs	57	Black	Barbadian		L
		1	Grace	43	Black	Barbadian		L
		1	Fusey Bell	47	Black	Barbadian		L
		1	Ammoe	47	Black	Barbadian		L
		1	Dimis	45	Black	Barbadian		L
		1	Nanny	67	Black	Barbadian		L
		1	Fally Bridge	43	Black	Barbadian		L
		1	Eloy	45	Black	Barbadian		L
		1	Fuggy	44	Black	Barbadian		L
		1	Jinah	42	Black	Barbadian		L
		1	Bellah	42	Black	Barbadian		L
		1	Nanny Befs	47	Black	Barbadian		L
		1	Queen	41	Black	Barbadian		L
		1	Amaryllis	45	Black	Barbadian		L
		1	Patience	38	Black	Barbadian		L
		1	Belinda	39	Black	Barbadian		L
		1	Little Margaret	39	Black	Barbadian		L

Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Male	Female					Domestic	Labourer
		1	Abigail	35	Black	Barbadian		L
		1	Little Peggy	37	Black	Barbadian		L
		1	Beckey	36	Black	Barbadian		L
		1	Philly Ned	39	Black	Barbadian		L
		1	Philly Bella	37	Black	Barbadian		L
		1	Betty	38	Black	Barbadian		L
		1	Mary Agnes	28	Black	Barbadian		L
		1	Rosy	32	Black	Barbadian		L
		1	Phyllis	24	Black	Barbadian		L
		1	Mary Sally	30	Black	Barbadian		L
		1	Dorcas	21	Black	Barbadian		L
		1	Jane Grace	26	Coloured	Barbadian		L
		1	Leah	37	Black	Barbadian		L
		1	Lil Leah	34	Black	Barbadian		L
		1	Mary Isabel	29	Black	Barbadian		L
		1	Kitty Grace	27	Black	Barbadian		L
		1	Little Sally	25	Black	Barbadian		L
		1	Little Lilly	35	Black	Barbadian		L
		1	Betty Venus	30	Black	Barbadian		L
		1	Fusey	26	Black	Barbadian		L
		1	Nelly Betsy	27	Black	Barbadian		L
		1	Margaret	21	Black	Barbadian		L
		1	Harriet	20	Black	Barbadian		L
		1	Sarah Grace	23	Black	Barbadian		L
		1	Satira	23	Black	Barbadian		L
		1	Abigail	20	Black	Barbadian		L
		1	Betty Grace	24	Black	Barbadian		L
		1	Sally Patience	22	Black	Barbadian		L
		1	Amelia	20	Black	Barbadian		L
		1	Nelly	20	Black	Barbadian		L

Barbados Slave Register 1834 Volume 11 pp.54-59 [fo.28-30] St. Nicholas Plantation 3<sup>d</sup> March 1834

Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Male	Female					Domestic	Labourer
		1	Hester	19	Black	Barbadian		L
		1	Little Joanna	30	Black	Barbadian		L
		1	Dolly	22	Black	Barbadian		L
		1	Chilla	20	Black	Barbadian		L
		1	Nanny Rose	21	Black	Barbadian		L
		1	Sarah	21	Black	Barbadian		L
		1	Mary Jane	22	Black	Barbadian		L
		1	Jubah	19	Black	Barbadian		L
		1	Mary Christian	20	Black	Barbadian		L
		1	Polly Will	17	Black	Barbadian		L
		1	Peggy Eve	16	Coloured	Barbadian		L
		1	Molly Abby	18	Black	Barbadian		L
		1	Hannah	17	Black	Barbadian		L
		1	Clarissa	16	Black	Barbadian		L
		1	Mary Beck	14	Black	Barbadian		L
		1	Peggy Molly	14	Black	Barbadian		L
		1	Pitta	11 <sup>1</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Charlott Ann	11 <sup>3</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Easter	17	Black	Barbadian		L
		1	Fortune	14	Black	Barbadian		L
		1	Mary Mucco	13	Black	Barbadian		L
		1	Mimbo	12 <sup>3</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Fanny	9 <sup>2</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Lucy Margaret	12 <sup>6</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Henrietta	11 <sup>1</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Susey Joan	9 <sup>7</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Peggy Ann	10 <sup>11</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Susey	11 <sup>5</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Benebah	9 <sup>6</sup> / <sub>12</sub>	Black	Barbadian		L
		1	Hester	8 <sup>11</sup> / <sub>12</sub>	Black	Barbadian		L

Barbados Slave Register 1834 Volume 11 pp.54-59 [fo.28.30] St. Nicholas Plantation 3<sup>rd</sup> March 1834

Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Males	Females					Domestic	Labourer
		1	Janny Ann	8 <sup>9</sup> / <sub>12</sub>	Black	Barbadian		
		1	Rebecca	11 <sup>9</sup> / <sub>12</sub>	Coloured	Barbadian	D	
		1	Rosey	6 <sup>6</sup> / <sub>12</sub>	Black	Barbadian		
		1	Betty Mary	6 <sup>7</sup> / <sub>12</sub>	Black	Barbadian		
		1	Peggy Rose	6	Black	Barbadian		
		1	Petsy Ann	4 <sup>6</sup> / <sub>12</sub>	Black	Barbadian		
		1	Susannah	6	Black	Barbadian		
		1	Cornelia	2 <sup>6</sup> / <sub>12</sub>	Black	Barbadian		
		1	Fusey Mingo		Black	Barbadian		
		1	Peggy Venus		Black	Barbadian		
		1	Mercy		Black	Barbadian		
Number Last Registration	87	99						186
Births	1		Anow		Black	Barbadian		
	1		Marcus	1 <sup>5</sup> / <sub>12</sub>	Coloured	Barbadian		
	1		Will		Black	Barbadian		
	1		Dickey	1 <sup>4</sup> / <sub>12</sub>	Black	Barbadian		
	1		George Beckwith		Black	Barbadian		
	1		John Thomas	1 <sup>2</sup> / <sub>12</sub>	Black	Barbadian		
	1		Ren	1 <sup>2</sup> / <sub>12</sub>	Black	Barbadian		
	1		Stephen		Black	Barbadian		
	1		Charles Hope	11/12	Black	Barbadian		
	1		Solomon		Black	Barbadian		
	1		Robert	6/12	Black	Barbadian		
	1		Sam Hackett		Black	Barbadian		
		1	Bella		Black	Barbadian		
		1	Elizabeth Ann	1 <sup>4</sup> / <sub>12</sub>	Black	Barbadian		
		1	Sarah Ann	1 <sup>3</sup> / <sub>12</sub>	Black	Barbadian		
		1	Betsy Mary	6/12	Black	Barbadian		

Barbados Slave Register 1834 Volume 11 pp.54-59 [fo.28-30] St. Nicholas Plantation 3<sup>d</sup> March 1834

Causes for Increase & Decrease	Sex		Name	Age	Colour	Country	Employment	
	Males	Females					Domestic	Labourer
		1	Sarah Edward	4/12	Black	Barbadian		
		1	Betty Jack	3/12	Black	Barbadian	18	Increase
Deaths	1		William Granum		Black	Barbadian		
	1		Sam Fort		Black	Barbadian		
	1		Natty		Black	Barbadian		
	1		John Edward		Coloured	Barbadian		
	1		Phill		Black	Barbadian		
	1		Bristol		Black	African		
	1		John Griffith		Black	Barbadian		
	1		Joe		Black	Barbadian		
	1		Johnny		Black	Barbadian		
	1		Frank		Black	Barbadian		
	1		Sampson		Black	Barbadian		
	1		Anow		Black	Barbadian		
	1		Stephen		Black	Barbadian		
	1		Solomon		Black	Barbadian		
	1		Will		Black	Barbadian		
	1		George Beckwith		Black	Barbadian		
		1	Mercy		Black	Barbadian		
		1	Bella		Black	Barbadian		
	1	Jusey Mingo		Black	Barbadian			
	1	Peggy Venus		Black	Barbadian	20	decrease	
	83	101					184	

3<sup>rd</sup> day of March 1834

APPENDIX C.  
 EXAMPLES OF EUROPEAN MEDICINE FROM DR. COLLINS'  
 MEDICAL MANUAL

APPENDIX.

IN order to be able to prepare medicines, it is necessary to obtain an acquaintance with the weights and measures employed by the apothecaries for that purpose, as well as with the characters by which they are designed.

One pound	}	contains	{	Twelve ounces
One ounce				Eight drachms
One drachm				Three scruples
One scruple				Twenty grains

The weights contained in the small box of apothecaries' scales are the

		Grains,
Two drachms	{ - - ℥j. }	- - - - 120
One drachm	{ - - ℥j. }	- - - - 60
Two scruples	{ marked ℥ij. }	equal to - 40
Half drachm	{ - - ℥ss. }	- - - - 30
Scruple	{ - - ℥j. }	- - - - 20
Half scruple	{ - - ℥ss. }	- - - - 10

The grains are stamped from one to six.

The measures are,

A pint - -	}	containing	{	Sixteen ounces
An ounce -				Eight drachms
A table-spoon				Four drachms
A tea-spoon				One drachm or 60 Drops *

\* A drop is supposed equal to one grain.



*Compositions to be kept always prepared.*

Steel electuary—dose from one to two drachms.

Take, of iron filings, one pound; powder of ginger, one ounce; molasses, sufficient to make an electuary.

Bitters—dose a wine-glassful.

Take, of the shavings of bitter-salt, eight ounces; the roots of bruised ginger and sempervivum bruised, each four ounces; rum, one gallon; water, four gallons; mix, and keep for use.

Essence of antimony—dose thirty to sixty drops.

Take, of the glass of antimony, finely powdered, one ounce; of Madeira wine, a pint and a half; mix, and shake daily, for twelve days; when settled, filter it through blotting-paper. The same antimony will serve repeatedly, if new wine be added.

Powder for Dysenteries—dose from three to five grains.

Take, of powder of ipecacuanha, four ounces; of emetic tartar, four drachms; mix well.

Emetic mixture—dose two to four tea-spoonfuls.

Take, of emetic tartar, half an ounce; water, one quart; mix, and dissolve.

Vegeto-mineral water.

Take, of Goulard's extract of lead, one table-spoonful; of pure rose-water, one quart; mix.

*List of Drugs.*

	lb.	oz.		lb.	oz.
Ethiops mineral	-	4 0	Roman vitriol	-	1 0
Aloes, hepatic	-	2 0	Verdigrise	-	3 0
Common alum	-	1 0	Extract of lead	-	5 0
Volatile sal-ammoniac	0	4	Emetic tartar	-	0 3
Glass of antimony	0	2	Opium	-	0 1
Mercurial ointment	4	0	Sago	-	20 0
Armenian bole	0	8	Salop	-	2 0
Calomel	-	2 0	Epsom salts	-	25 0
Camphor	-	1 0	Spermaceti	-	2 0
Powder of crabs' claws	1	0	Comp. sp. of lavender	2	0
Spanish flies	-	1 0	Spirit of vitriol	-	1 0
Spirit of hartshorn	0	3	Yellow basilicon	-	10 0
Powd. of Peruvian bark	8	0	Turner's cerate	-	5 0
Cream of tartar	-	2 0	Gum arabic	-	2 0
Flowers of sulphur	15	0	Scotch barley	-	30 0
Gum Gamboge	-	0 3	Corrosive sublimate	0	4
Gum guaicum	-	1 0	Opodeldoc	-	4 0
Powder of Jalep	0	8	Powder of tin	-	3 0
Powder of ipecacuanha	1	0	Filings of iron	-	12 0
Powder of rhubarb	1	8	Magnesia	-	3 0
Manna	-	1 0	Gum plaster	-	2 0
Salt of nitre	-	3 0	Strengthening plaster	2	0
Oil of almonds	-	4 0	James's powder	12	papers
Oil of peppermint	-	0 1	Tow	-	6 0
Oil of aniseed	-	0 2	Lint	-	2 0
Liquid laudanum	-	4 0			

*Instruments and Utensils.*

Two pair of small apothecaries' scales  
 One pair of larger ditto, with weights to one pound  
 Two spatulas, two bolus knives  
 One pewter pint measure, one half-pint ditto  
 One ditto four ounces, two ditto one ounce  
 Two small funnels for phials, one larger ditto  
 One large tin ditto  
 Four pewter bed pans  
 Three large pewter clyster syringes, 3 small ditto for ears  
 Twelve dozen phials, of different sorts  
 Twelve dozen gillipots, of all sorts  
 One small hand metal mortar, one larger ditto  
 One bolus marble  
 One small marble mortar, one larger ditto  
 Two small glass ditto  
 Two scalpels, one probe, one pair of forceps  
 One gum lancet  
 Two tooth instruments, with different claws  
 Six launces

\* The drags are to be renewed, so as to be made up to the above quantities once every year. If the gang of negroes be more than three hundred, the quantities must be increased accordingly.

THE END.

1126  
s

## REFERENCES CITED

- Agnew, J.C.  
1994 *Coming up for air: Consumer Culture in historical perspective*.  
In *Consumption and the World Goods*. New York: Routledge.
- Appadurai, A.  
1986 *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.
- Armstrong, Douglas.  
1990 *The Old Village and the Great House*. Urbana: University of Illinois Press.
- Barbados Council.  
1824 *A Report of a committee of the council of Barbadoes appointed to inquire into the actual condition of the slaves in this island* pp.109
- Beaudry, Mary C., Stephen A. Mrozowski, and Grace H. Ziesing.  
1996 *Living on the Boott: Historical Archaeology at the Boot Mills Boardinghouses, Lowell, Massachusetts*. University of Massachusetts Press.
- Bilby, Kenneth M. and Jerome S. Handler.  
2004 "Obeah: Healing and Protection in West Indian Slave Life."  
*The Journal of Caribbean History* 38, 2 (2004): 153-183.
- Bourdieu, Pierre.  
1977 *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, Pierre.  
1984 *Distinction: A Social Critique of the Judgment of Taste*. Cambridge/ Harvard University Press.
- Boroughs, Jason.  
2007 *Archaeological Investigations at the Quarterpath Site: An Antebellum Tenant Residence near Williamsburg, Virginia*. Ms. on file at the Department of Archaeological Research of the Colonial Williamsburg Foundation.

- Collins, David Dr.  
1811 *Practical Rules for the Management and Medical Treatment of Negro Slaves in the Sugar Colonies*. Original publish date 1811 in London. Republished in 1971.
- R. S. Corruccini et. al.  
1987 "Patterning of Skeletal Lead Content in Barbados Slaves." *Archaeometry* 29: 233-39.
- Craton, Michael.  
1976 *A Jamaican Plantation. Worthy Park, 1670-1970*. London and Toronto, pp.344, 1970.
- Deetz, James.  
1993 *Flowerdew Hundred: The Archaeology of a Virginia Plntatation, 1619-1864*. Charlottesville: University Press of Virginia.
- Deetz, James.  
1996 *In Small Things Forgotten*. Doubleday, New York, New York.
- Devlin, Sean.  
2008 *Self-Education*. Ms. on file at the Department of Anthropology of the College of William and Mary.
- Douglas, M. and B. Isherwood.  
1978 *The World of Goods: Towards an Anthropology of Consumption*. New York.
- Dunn, Richard S.  
1972 *Sugar and Slaves: the Rise of the Planter Class in the English West Indies, 1624-1713*. University of North Carolina Press Chapel Hill.
- Edwards-Ingram, Ywone  
2005 *Medicating Slavery: Motherhood, Health Care, and Cultural Practices in the African Diaspora*. A Dissertation presented to the College of William and Mary.
- Ferguson, Leland.  
1992 *Uncommon Ground: Archaeology and Early African America, 1650-1800*. Washington, D.C.: Smithsonian Institution.
- Fennel, Chris.  
2007 *Crossroads and Cosmologies: Diasporas and Ethnogenesis in the New World*. University Press of Florida.

- Fike, Richard E.  
1987 *The Bottle Book: A Comprehensive Guide to Historic Embossed Medicine Bottles*. Salt Lake City: Peregrine Smith.
- Fisher, Lawrence E.  
1946 *Colonial Madness: Mental Health in the Barbadian Social Order*. New Brunswick, N.J: Rutgers University Press.
- Griffenhagen, George B. and James Harvey Young.  
1959 *Old English Patent Medicines in America*. Washington : Smithsonian Institution.
- Gundaker, Grey and Judith McWilie.  
2005 *No Space Hidden*. The University of Tennessee Press: Knoxville.
- Handler, Jerome.  
1963 "Pottery Making in Rural Barbados." *Southwestern Journal of Anthropological Science* 64: 150-151.
- Handler, Jerome and Frederick W. Lange.  
  
1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. Harvard University Press.
- Handler, Jerome and Robert S. Corruccini.  
1983 "Plantation Slave Life in Barbados: A Physical Anthropological Analysis." *Journal of Interdisciplinary History*. XIV: 1 (Summer 1983), 65-90.
- Handler, Jerome with Michael D. Conner and Keith P. Jacobi.  
1989 *Searching for a Slave Cemetery in Barbados West Indies: A Bioarchaeological and Ethnohistorical Investigation*. Center for Archaeological Investigations Southern Illinois University at Carbondale Research Paper No. 59.
- Jerome Handler and JoAnn Jacoby.  
  
1993 "Slave Medicine and Plant Use in Barbados." *Journal of the Barbados Museum and Historical Society*. Volume 14.
- Handler, Jerome.  
1996 "A prone Burial from a Plantation Slave Cemetery in Barbados, West Indies: Possible Evidence for an African-Type Witch or Other Negatively Viewed Person." *Historical Archaeology* 30 (3):76-78.

- Handler, Jerome.  
 1997 "An African-Type Healer/ Diviner and His Grave Goods. A Burial from a Plantation Slave Cemetery in Barbadoes, West Indies." *International Journal of Historical Archaeology* 1. (2): 91-130.
- Handler, Jerome with Michael D. Conner and Keith P. Jacobi.  
 1989 *Searching for a Slave Cemetery in Barbados West Indies: A Bioarchaeological and Ethnohistorical Investigation*. Center for Archaeological Investigations Southern Illinois University at Carbondale Research Paper No. 59.
- Jerome Handler and JoAnn Jacoby.  
 1993 "Slave Medicine and Plant Use in Barbados." *Journal of the Barbados Museum and Historical Society*. Volume 14.
- Handler, Jerome.  
 2006 "Diseases and Medical Disabilities of Enslaved Barbadians, From the Seventeenth Century to around 1838" *The Journal of Caribbean History*. Vol. 40:1 and 2. Published by the University of the West Indies.
- Heath, Barbara.  
 1999 "Yabas, Monkeys, Jugs, and Jars: A Historical Context for Afro-Caribbean Pottery on St. Eustatius." In *African Sites: Archaeology in the Caribbean*, ed. Jay Havisser, pp.196-220. Markus Weiner, Princeton, New Jersey.
- Higman, Barry W.  
 1984 *Slave Populations of the British Caribbean, 1807-1834*. Johns Hopkins University.
- Hume, Ivor Noel.  
 1969 *A Guide to Artifacts of Colonial America*. University of Pennsylvania Press: Philadelphia.
- Leone, Mark P. and Gladys-Marie Fry  
 1999 "Conjuring in the Big House Kitchen: An Interpretation of African American Belief Systems Based on the Uses of Archaeology and Folklore Sources." *Journal of American Folklore*, 112(445):372-403.
- Lignon, Richard.  
 1657 *A true and exact history of the iland of Barbados*. London.

Mintz, Sidney W. and Richard Price

1992 *The Birth of African-American Culture*, Boston: Beacon Press.  
First published in 1976.

Mintz, Sidney.

1974 *Caribbean Transformations* Baltimore: John Hopkins  
University Press.

Mullins, Paul.

1999 *Race and Affluence: an Archaeology of African America and  
Consumer Culture*. New York: Kluwer Academic/ Plenum  
Publishers.

Mullins, Paul.

2004 "Ideology, Power, and Capitalism: The Historical Archaeology  
of Consumption." In *A Companion to Social Archaeology*. pp.195-  
212.

Newton Papers (Ms. 523, University of London Library).

290 Sampson Wood, "Report on the buildings at Newton," June 24,  
1796.

Orderson, J.W.

1842 *Creolena: or, social and domestic scenes and incidents in  
Barbados in the days of yore*. London.

Ortner, Sherry.

1996 *Making Gender: The Politics and Erotics of Culture*. Boston:  
Beacon.

Reeves, Matthew

2009 "Mundane or Spiritual—The Interpretation of Glass Bottles  
Found on Sites of the African Diaspora." Director of Archaeology,  
Montpelier Foundation 2009 SHA Conference

Samford, Patricia.

1999 "Strong is the Bond of Kinship": West African-Style Ancestor  
Shrines and Subfloor Pits on African-American Quarters. In  
*Historical Archaeology, Identity Formation, and the Interpretation of  
Ethnicity*, edited by Maria Franklin and Garrett Fesler, 71-91.  
Richmond: Dietz Press. Colonial Williamsburg Research  
Publications.

- Sheridan, Richard B.  
1974 *Sugar and Slavery: an economic history of the British West Indies 1623-1775*. Baltimore: Johns Hopkins University Press.
- Singleton, Theresa A.  
1985 *The Archaeology of Slavery and Plantation Life*. New York: Academic Press.
- Singleton, Theresa A.  
1991 The Archaeology of Slave Life. In *Before Freedom Came: African-American Life in the Antebellum South*, edited by Edward D. C. Campbell, Jr., and Kyrn S. Rice, 176-91. Charlottesville: University Press of Virginia.
- Smith, Frederick H.  
2005 *Caribbean Rum: A Social and Economic History*. Gainesville, FL: University Press of Florida.
- Smith, Frederick H.  
2008 *The Archaeology of Alcohol and Drinking*. University Press of Florida.
- South, Stanley.  
1977 *Method and Theory in Historical Archaeology*. Academic Press, New York New York
- Sturge, Joseph and Thomas Harvey.  
1837 *The West Indies in 1837 Being the Journal of a Visit to Antigua Monsterrat, Dominica, St. Lucia, Barbados, and Jamaica*. Frank Cass & Co. Ltd.: 1968: London: Hamilton, Adams, & Co. Paternoster Row. Printed by B. Hudson, Birmingham.
- Upton, Dell.  
1996 "Ethnicity, Authenticity, and Invented Traditions." *Historical Archaeology*. 30 (2):1-7.
- Watson, Richard.  
1965 *Bitters Bottles*. Thomas Nelson & Sons, n.p.
- Wilkie, Laurie.  
1997 "Secret and Sacred: Contextualizing the Artifacts of African-American Magic and Religion." *Historical Archaeology*.



Wilkie, Laurie.

2000 *Creating Freedom: Material Culture and African American Identity at Oakley Plantation, Louisiana. 1840-1950.* University of Louisiana Press, Baton Rouge, Louisiana.

## VITA

### Kathleen Elizabeth Mocklin

Born in Lake Charles, Louisiana, March 26<sup>th</sup>, 1984. Graduated from Alfred M. Barbe High School, Lake Charles, Louisiana, May 2002. B.A. Louisiana State University, 2006. M.A. candidate, College of William and Mary, 2007-2009, with a concentration in Historical Archaeology. This thesis completes the course requirements for the latter degree.