



# PRE-COLONIAL AND POST-CONTACT ARCHAEOLOGY IN BARBADOS

PAST, PRESENT, AND FUTURE RESEARCH DIRECTIONS

EDITED BY

MAAIKE S. DE WAAL, NIAL FINNERAN, MATTHEW C. REILLY,  
DOUGLAS V. ARMSTRONG & KEVIN FARMER



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Published by Sidestone Press, Leiden  
[www.sidestone.com](http://www.sidestone.com)

Imprint: Sidestone Press Academics

Lay-out & cover design: Sidestone Press

Photograph cover:

Maaïke de Waal (landscape picture and shell artefacts  
picture on front cover; mill picture on back cover).

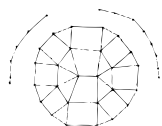
Derek Miller (other artefacts pictures on front cover:  
pipe and two pottery fragments).

ISBN 978-90-8890-845-3 (softcover)

ISBN 978-90-8890-846-0 (hardcover)

ISBN 978-90-8890-847-7 (PDF e-book)

Cet ouvrage a été publié grâce au soutien du Ministère de  
la Culture, Direction des Affaires Culturelles de Martinique



**TABOUI** NO. 5

COLLECTION D'ARCHÉOLOGIE CARAÏBE  
DIRIGÉE PAR BENOÎT BÉRARD

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# Introduction: The Past and Present of Archaeology in Barbados

*Douglas V. Armstrong, Alissandra Cummins, Maaike S. de Waal, Kevin Farmer, Niall Finneran & Matthew C. Reilly*

## **Abstract**

This introduction provides an overview of the history of archaeology undertaken on the island of Barbados. From its colonial, antiquarian roots to the present, Barbadians and visiting professionals have demonstrated an eager fascination in the island's rich past. The authors chart the earliest discussions of Amerindian material culture in the seventeenth century to the rise of historical archaeological studies of the enslaved shortly after independence in 1966. Reflected in this disciplinary history are the politics, processes, practices, and policies that affected archaeology and its promotion on the island. The chapter closes with an overview of the individual case studies that make up this volume, demonstrating how professionals are building on a strong Barbadian archaeology tradition and moving the field in innovative and exciting new directions.

**Keywords:** *Pre-colonial archaeology, historical archaeology, antiquarianism, history of archaeology, Caribbean heritage.*

## **Introduction**

The 28<sup>th</sup> Congress of the International Association of Caribbean Archaeologists (IACA) on the island of Barbados in July of 2019, in addition to being an international meeting of professional archaeologists working in the broader Caribbean region, is a celebration of Barbados' rich tradition of archaeological research. As part of that celebration, this volume serves as a compilation of the history and scope of research that has taken place in Barbados over the last several decades, an overview of the current trends guiding archaeological practice in the early decades of the twenty-first century, and a look to the future of Barbadian heritage and archaeological resources. The island has been

home to extensive archaeological work since the last half of the twentieth century. Up to the present, this work, as illustrated by the diverse range of scholars represented in this collection, involves local professionals, international researchers, and members of the Barbadian public dedicated to the study, promotion, and protection of this island's archaeological heritage.

The volume sketches the natural setting and the social, political, economic, and religious lifeways of people who have been living in Barbados from the first inhabitants up to the present. Topics relating to both pre-colonial and historical archaeology are discussed, and a period ranging roughly from ca. 5000 Cal BP (Before Present)<sup>1</sup> to the present is covered. Unlike many other islands in the Caribbean, Barbados experienced a gap in habitation just prior to official English settlement in AD 1627, thus making a schism between pre- and post-contact archaeology seemingly more pronounced. However, with the integration of the full spectra of cultural expressions from the earliest human occupations to the modern era, this volume adheres to and builds upon a long tradition in the Caribbean of aiming to blur temporal boundaries that limit an integrated interpretation of the past (see, for example, Curet and Hauser 2011).

While we remain committed to a holistic approach to the island's archaeological past, we have separated pre-colonial archaeology from historical archaeology in a rather rigid manner, even though it may be argued that for future projects a combination of the two would be advisable, as several historic sites are on locations which also evidence Amerindian settlement (De Waal, this volume; chapter one). Focusing on one period inevitably results in information loss for the other period, and questions about possible continuity in settlement choices, landscape use, and perception, as well as socio-political, economic, and symbolic traditions can be best investigated by integrating all available archaeological information. We therefore advocate an approach to archaeology that moves beyond rigid temporal boundaries and champion a more inclusive approach to island heritage.

The volume has been divided into four sections. Section one is devoted to pre-colonial archaeology in Barbados, whereas section two focuses upon more historical archaeological topics, discussing the plantation landscapes and cosmopolitan, urban landscapes, respectively. Section three presents more detailed and fine-grained analyses carried out on historical material assemblages and landscapes to highlight how technological advancements in the field have contributed to our understanding of the Barbadian past. Last but not least, section four presents studies focusing on interpretation and management of cultural heritage assets by and for the Barbadian island community.

The diversity of archaeological studies offered in this volume is a testament to those figures and institutions that supported research on the island in its earliest days. In addition to providing a more detailed overview of the volume, in this introduction we also look back at the archaeological work that inspired and informed some of the analyses that are found in these pages. While many of the authors contributing to this collection are American or European – an issue of representation that we hope to be-

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1 It is important to establish our scheme for reporting chronological dates: earlier pre-contact material is rendered as BP (where the present is AD1950) and where calibrated shown thus: Cal BP. Elsewhere, more conventionally in recent periods, the terms BC and AD are utilized.



gin to remedy by encouraging more Barbadian involvement in archaeological research through this compilation – much of this research was undertaken through strong collaborations with Barbadian institutions. The Barbados Museum and Historical Society, the Barbados National Trust, and The University of the West Indies, Cave Hill are three of the primary institutions through which archaeological research on the island is supported. The former, in particular, plays a leading role in ensuring that sites are documented, collections are cared for, and the island’s archaeological past remains accessible to the Barbadian public. While regional museums like the Barbados Museum now play an important role in nation-building processes in the postcolonial Caribbean (see Cummins *et al.* 2013), their institutional histories also highlight the intimate linkages between early island archaeology, colonialism, and museums. It is therefore fitting that we explore the trajectory of archaeological research on the island beginning with its colonial origins and an archaeological fascination with the pre-colonial past.

## Early Archaeology and Antiquarianism in Barbados <sup>2</sup>

Rooted in a colonial history of antiquarianism or collecting practices of ‘exotic’ materials from the tropics, the archaeological tradition in Barbados has historical depth arguably unmatched throughout the Caribbean, at least from an institutional level. Indeed, both the island’s prehistory and colonial context have formed a distinct presence from the first moment of the island’s recorded history. From the earliest decades of the island’s European and African settlement, it has offered something of an object lesson for the development of British and Barbadian archaeology through the acquisition of new collections and accessibility of new knowledge over the next three hundred years. Prior to the formalization of an archaeology tradition on the island, however, various early historians of the island took a material interest in the island’s past.

Barbados’ first historian, Richard Ligon, in his celebrated work, *A True & Exact History of the Island of Barbados Illustrated with a Mapp of the Iland*, and first published in 1657 (new edition 2014), challenged the claim made in legal documents of Barbados being a kind of Caribbean *Terra Nullius*. During his residence in Barbados between 1647 and 1650, Ligon made the first known recorded observations of Amerindian occupancy of the island, offering insights into the populating of the island and their distinctive material culture. He wrote of the:

*‘Natives of the leeward Ilands, that were at the distance of sight, comming thither in their Cannoas, and Periagos, ... and stayed sometimes a month together, ... leaving behinde them certain tokens of their being there, which were, Pots, of severall sizes, in which they boyled their meat, made of clay, so finely tempered, and turned with such art, as I have not seen any like them, for finenesse of mettle, and curiosity of turning, in England. This information I received from the Planters in Barbadoes’* (Ligon 1657 [2014]: 45).

---

2 This survey is indebted to the late Ronald V. Taylor’s important work in compiling and republishing together all the then known archaeologically related sources for Barbados in his seminal document *Source Materials for the Study of Archaeology and pre-history of Barbados*, which he presented at the 9th IACA Conference in 1981.

Ligon's careful observations of Barbados' early material culture led to his foreshadowing of a debate that would emerge in archaeological literature centuries later. Documenting the thoughts of planters and other islanders pertaining to the origins of certain material forms, specifically ceramics, Ligon noted the thoughts of:

*'... an antient Captain,... one of those that first landed on the Iland; Captain Canon (for so was his name) inform'd me for certain, that this was a grosse mistake in the Planters, and that no Indians ever came there: But those Pots were brought by the Negres, which they fetcht from Angola, and some other parts of Africa; and that he had seen them make of them at Angola, with the greatest art that may be. Though I am willing to believe this Captain, who delivered upon his knowledge, that the Negres brought some Pots thither, and very finely and artificially made; yet, it does not hinder any man from believing, that the Indians brought some too; and who knowes, which were the most exactly made'* (Ligon 1657 [2014]: 45-46).

Ligon goes on to draw conclusions of his own indicating:

*'I have a great inclination to believe, the Indians have been there, for this reason, that the Iland of St. Vincents, lying in the same Climate with this of Barbadoes, the Clay may be of the same nature and qualitie; and they, having the skill to bring their Clay to so fine a temper, as to burn and not break, may shew us the way, to temper ours of the Barbadoes so, as we may make Bricks to burn, without chopping or cracking; which those of Angola, being far off, and it may be, their Clay of different temper, cannot help us in. And it is no hard matter, to procure an Indian or two, to come from that Iland, and give us direction, which would be of infinite use and advantage, to our buildings in Barbadoes. But this digression must not lead me out of the way of my business'* (Ligon 1657 [2014]: 46).

Interestingly, archaeological debates surrounding manufacture and origins of local ceramics continue, albeit in different forms. Ligon's seventeenth-century account illustrates that material culture and its associated peoples have long been of interest to Barbadians and visitors.

A century after Ligon's sojourn, Welsh naturalist the Reverend Griffith Hughes, Fellow of the Royal Society, from his post as rector of St. Lucy Parish Church, made detailed observations of all aspects of Barbados' natural phenomena including plants, people, and wildlife over a period of several years. Through his association with both the Royal Society and the Society for the Propagation of the Gospel, Hughes, through extensive correspondence and strategic publication, was able to build on local knowledge to document the natural features and early inhabitants of the island, presenting his observations to discerning audiences. The 1750 publication of his book (Hughes 1750), *The Natural History of Barbados in Ten Books*, including the first description of the grapefruit (also known as 'The Forbidden Fruit'), received high praise from his peers including acclaimed scientist Carl Linnaeus. In terms of archaeology, the importance of his work is based in his continued interrogation of the 'Indian' occupancy question.

The clergyman scientist made extensive collections of stone axes, shell adzes, pottery remnants, and Amerindian effigies, the illustrations of which in the *Natural History* represent the first of their kind for Barbados. Hughes was also the first to describe many of the sites around the island from an archaeological perspective. He traced the origins of Barbados' Indian place names and even recorded a 1732 visit of an 'Indian' canoe. All of these findings led Hughes to be clear in his conclusion that these remains were definitively Amerindian and not African in origin. He spoke to both the physical evidence, the people, and then the various processes by which the historian/proto-archaeologist arrives at the conclusion of earlier presences. He wrote:

*'It IS, indeed, said, that some of the first Discoverers of this Island, found no Inhabitants upon their Arrival. However, we ought not to conclude too hastily, that there never were any, until what is-offered to prove the contrary, be fully considered....But as we have late Instances of their coming hither from St, Vincent's, in their small Canoes, or Perriawgers, even for their Pleasure. I concluded, that they might formerly, more probably, come for' their Interest; especially at certain Seasons of the Year, when the Fishing, or Game, in the other Islands, grew, either scanty or shy, by being too often disturbed' (Hughes 1750: 5).*

Hughes then describes the methodology he employs in determining the presence of the Amerindian population, highlighting the importance of place names and archaeological artifacts in making determinations about Amerindian presence and culture (Hughes 1750: 5-6). Compiling all the available evidence of Indian inhabitation in the island, primarily referencing a number of places of Amerindian residence or worship, Hughes describes some of the artifacts which spoke to the latter and the method of their discovery, stating:

*'With Part of Clay (9) which they 'dug' out, they made their Earthen-ware, such as Pots and Pans and, like the Idolaters of old, out of the same Materials they made to themselves Gods, and worshiped them. Among several broken fragments of Idols, said to be dug up in this Place... The last evidence of their residence in this Place, is a great Number of their Stone Hatchets and Chissels, that are here dug up... The Use of these (10) Hatchets and Chissels was in all Likelihood to cut down Timber, to make Huts, where they had not the Conveniency of Caves; as well as with the Help of Fire to fell some of the largest Kind, to make Canoes' (Hughes 1750: 7).*

Hughes goes on to draw comparisons between Amerindian pot sherds and African-made pots, indicating that:

*'Several Earthen Vessels, of different Sizes, have been dug up near the above- mentioned [Indian] Pond, within these thirty Years last past: These were generally of a globular Figure, of a Slate Colour, but very brittle otherwise far surpassing the Earthen-ware made here by Negroes, in Thinness, ware. Smoothness, and Beauty' (Hughes 1750: 8).*

Hughes' comments are tinged with eighteenth-century racialized and relativist thinking in which cultures were placed in a hierarchy based on perceived sophistication and civilization, but they nonetheless indicate how material culture played an important role in understanding the island's past and diversity.

Colonial interest in the exotic and 'other' would become more formalized in the following century when the global phenomenon of world exhibitions or fairs, in part triggered by the enormous popularity of Britain's Great Exhibition of 1851, and the foundation of the British Archaeological Association and the Archaeological (later Royal Archaeological) Institute in the 1840s. These events and institutions fed both the scientific search for knowledge as well as the public's appetite for exotic cultures and peoples. As Alistair Cummins notes, such interest also impacted upon museum development in the West Indies (Cummins 2013). These, together with the development of regional museums in Britain (and by extension its colonies in the West Indies), were fueled by the development of archaeological and anthropological research, moving from amateur enthusiasm to formal sciences. In this enlightenment environment the physical evidence of the earliest Amerindian inhabitants, principally pottery sherds and shell adzes, increasingly found their place in both private and later public collections.

By the second half of the nineteenth century, Barbadian Amerindian relics began to appear more regularly in the reports of Victorian antiquarian societies both within and outside the region. Codrington College functioned almost as a knowledge center for antiquarian research and a distribution center for Amerindian relics given the proclivities of its enquiring faculty. By 1865, the Oxford Alumnus the Reverend Greville John Chester, an active researcher in the field, was described by Gertrud Seidmann in her article on Chester's association with the original Ashmolean Museum, as having:

*'... varied interests, embracing both the classical past and anthropology, ethnology and local history, ... both within Britain and abroad'* (Seidmann 2006: 28).

In Barbados Chester would find rare prehistoric shell tools and pottery sherds, which he found:

*'useful for comparison with the remains of the same class found in England and other countries (and)...are found so universally and in such large numbers as to put the existence of a large stationary population beyond any doubt'* (Chester 1869: 44; 46).

Chester, upon his return, made arrangements to donate many of these artifacts to British institutions, including the British Museum. Unlike many of his predecessors, Chester ensured the provenance of his material was thoroughly and accurately recorded. In Oxford, the founding of a new University Museum of Natural History in 1860 had already resulted in some transfers from the Ashmolean's holdings, while most of Chester's anthropological collections from the West Indies leaked away later, two years after the Pitt Rivers Museum of Anthropology and Ethnology opened its doors in 1884.

Others followed in Chester's footsteps. Rev. William Griffith, acting tutor at Codrington College between 1872 and 1873, explored the 'Carib curiosities', which he found in Barbados. He wrote up his research adding to the growing knowledge sur-

rounding the island's antiquities in an article which was perhaps more remarkable for the variety of Griffith's informants than any revelations published. Griffith also pointed out the importance of proximity to spring water for locating Carib villages:

*'...found specially in the neighbourhood of the springs, which are met under the cliff: at intervals. These afford the only fresh water in the island, and would naturally be the sites for Charib [sic.] villages, as now for choice estates'* (Griffith 1879: 300).

Griffith recorded theories about the wear on shell/stone tools, even making ethnographic observations of how stone tools were still being made and used on nearby islands such as St. Vincent.

Other occasional contributors who helped to fill in the picture included Mr. Joseph Forte of Bennetts, Barbados, who wrote of his findings in a December 1879 letter, which was later read by a colleague alongside a small exhibit of some of his collection of exemplars at a session of the Royal Anthropological Institute of Great Britain and Ireland (RAI). His most useful contribution was to provide a detailed description and formal context to an underground worksite of some pre-contact shell tools found in natural caves. These sites functioned as repositories of abundant deposits of:

*'The 'Carib chisels', as they are called in this island, [which] are obtained from different parts, and the greater portion of them lie on or near the surface of the soil. Those I sent home were taken, with about 100 more, from a cave, and were found 6 or 8 inches below the surface. The cave is 350 feet above the sea level, and is situated at a distance of 2 miles from the sea: it is about 40 feet in length and 20 feet in breadth. It is entered below the side of a cliff, about 50 feet high, and with greater difficulty from above. ... I found the remains of different shells, principally conch shells, in the same cave. No doubt the place had been the workshop of the Caribs, or of the people, whomever they were, who made the chisels, and this would account for the number of these instruments, and the quantity of broken shells'* (Forte 1882: 2).

Formal archaeological excavations of cave sites had been up to then and still remain today, seriously limited. Forte, however, who referenced sub-surface collections of shell tools, apparently the first such recorded activity on the island, clearly made an important contribution to furthering archaeological knowledge, especially with regards to cave sites (Lace *et al.* 2013).

Victorian historian James Anthony Froude, travelling through the West Indies in 1886-87, described major public and private collections throughout the region. During his visit to Sir Thomas Graham Briggs at his Farley Hill estate in Barbados, Froude drew sumptuous descriptions of the region's treasures, while at the same time making clear the graphic contrast in the relative status of objects worked by the native ('uncivilized') Amerindians in comparison with the objects owned by ('civilized') citizenry of Europe (Froude 1888: 106). Perhaps the more relevant development for this publication is the recognition that, like Chester's collection, Briggs' artifacts did support the foundation and development of other late nineteenth-century museums and research institutions in Britain. Hicks and Cooper (2013: 402-405), for example,

in their detailed interrogation and reconstitution of the collections of the Pitt Rivers Museum, point out that a significant number of Barbadian stone and shell implements from the Thomas Graham Briggs collection had been acquired by sale in 1890 from C. Kenrick Gibbons, and later by donation through Henry Balfour's gift in 1915. Here they joined Rev. Chester's earlier donations. The authors' documentation of the provenance of several other of Barbadian acquisitions in fact do much to reconstruct the proto and early archaeological activity in Barbados.

The Reverend Father C. Cooksey, at the outset of the twentieth century, drew all these threads together in an article entitled 'The First Barbadians' for British Guiana's *Timehri* (Cooksey 1912). While he was meticulous to observe the burgeoning trade in faked Carib artifacts by those who did not actually understand how these shell tools were used, he was nevertheless convinced that, based on the frequency of artifacts from Oistins Bay to Six Men's Bay, that there had been established:

*'a considerable colony or colonies simultaneously or successively inhabited the Western or Loo'ard coast'* (Cooksey 1912: 142).

It was Cooksey also who seems to have definitively concluded, based on some comparative analysis, that 'the first Barbadians' had originated in the Orinoco, speculating that they had been caught in a storm and pushed further into the Atlantic by winds and currents from which there was no escape until they drifted towards land in Barbados. Cooksey's short but densely packed article compiles what was for him compelling evidence of the continental connection which later came to characterize the region's archaeological discourse of the later twentieth century.

While these early forays into island archaeology varied widely in quality, accuracy, mission, and motivation, in addition to being heavily impacted by colonial notions of European superiority, combined together they show demonstrable and growing authority on the part of Barbadians in understanding their archaeological heritage, pre-contact and historical settlements, and do draw interesting comparisons with similar archaeological relics and related resources which underpinned the development of the island's archaeology for almost three centuries.

## **Pre-Colonial Archaeology Before and After Independence**

After decades of island archaeological collections held in the hands of private collectors or British institutions, Eustace Maxwell Shilstone, supported by an Act of Parliament in 1933, founded the Barbados Museum and Historical Society, one of the first Caribbean institutions of its kind. Dedicated to studying, protecting, and displaying the material history of the island, the Museum still serves as a central institution through which archaeological research is conducted on the island. Furthermore, the *Journal of the Barbados Museum and Historical Society*, similarly established in 1933, remains one of the oldest continuously published journals in the Caribbean, boasting some of the earliest archaeological publications for the region. These publications, along with the first archaeological surveys conducted on the island, illustrate that the island's archaeological pioneers were committed to uncovering clues pertaining to the lives of Barbados' earliest inhabitants.

This research agenda stands in sharp contrast to work undertaken in the last few decades. For instance, when looking at the number of sections and chapters devoted to pre-colonial and to post-contact topics in this volume, it becomes evident that in Barbados many more research projects are being carried out in the field of historical archaeology when compared to pre-colonial archaeology. This, however, was not always the case. Long before historical archaeology became a recognized field of study in the 1960s, and even before the formal establishment of the Barbados Museum and Historical Society, archaeologists in colonial Barbados were fascinated by the island's pre-colonial past. While sugar production still dominated social and economic life in the post-emancipation Caribbean, early American and English archaeologists were exploring Amerindian life. For instance, J. Walter Fewkes (1915) of the Bureau of American Ethnology, examined caves and shell tools to argue that Barbados' Amerindian population was much larger and more culturally sophisticated than previously thought. His brief reconnaissance study in 1902 sought to compare the archaeological record of Barbados with that of neighboring islands and North America, thus establishing a colonial infrastructure for island archaeology that would be more formally developed in the 1930s with the formation of the Museum.

Over the ensuing decades, specifically in the years after independence in 1966, there would be a noticeable shift that favored historical archaeological research, a transition that will be elaborated upon below. Notwithstanding the fact that the pre-colonial period in Barbados covers no less than 4500 years, relatively few recent investigations have been undertaken to reconstruct the story of Amerindian groups living in Barbados from the Archaic Age to the Late Ceramic Age. These include some small-scale rescue archaeology interventions by Kevin Farmer (Barbados Museum and Historical Society; hereafter BMHS) and Karl Watson (formerly of The University of the West Indies), published in *The Journal of the Barbados Museum and Historical Society* (hereafter JBMHS), and surface surveys and test excavations by Maaïke de Waal (then of The University of the West Indies; De Waal in prep. a-c; De Waal and Lesparre 2018). Despite the understudied nature of the topic, the Amerindian past of Barbados reflects a long, rich, and fascinating history during which the island was inhabited, exploited, and modified, and many of the archaeological sites are known to contain unique material assemblages. One of the major drawbacks of a general omission of this significant period is that many pre-colonial sites have been damaged, or have even disappeared, as a result of the heavy coastal development related to the construction of tourist facilities, marinas, and housing projects, a topic we deal with in more detail in the Epilogue.

Intensive agricultural practices have greatly damaged inland sites. Apart from a few incidental projects (Drewett 2007), construction work is not preceded or accompanied by archaeological investigation to safeguard archaeological information. Barbados is not unique in allowing economic interests to prevail over the significance of safeguarding archaeological heritage, but the limited visibility of pre-colonial archaeological valuables combined with the relatively low level of interest of the general public, does not help to maintain and protect pre-colonial archaeological sites. Sharing information and increasing community involvement, as well as working on realizing effective legislation, may help to improve this situation. Archaeological sites are indeed a finite resource.



The zenith of pre-colonial archaeology in Barbados, when a very significant part of the story of Amerindian groups living in Barbados was revealed, was linked to the efforts of the Barbados Archaeological Survey (BAS) projects, headed by Peter and Lys Drewett, in the 1980s and 1990s. Before the BAS projects commenced, pre-colonial archaeological research in Barbados was largely dominated by amateurs both from the island and from abroad (Mary Hill Harris, this volume). A notable contribution was made by the British engineer Guy T. Barton, who created the first map of pre-colonial sites on the island in the 1950s (Barton 1979), which was used by the BAS projects to further build upon. In the 1960s, Ripley and Adelaide Bullen carried out the first professional excavations and created the first ceramic sequences for Barbados (Bullen 1968; Bullen and Bullen 1968). More excavations followed in the 1980s, carried out by Steven Hackenberger and Loran Cutsinger (Hackenberger 1987; 1988).

Although the Drewetts based a large part of their site inventory on work of earlier archaeologists and archaeology enthusiasts, the BAS surveys and inventory on the work of excavations produced many new discoveries, data, and publications (for example Drewett 1991; 2000; 2007). A large section of the storage rooms of the Barbados Museum and Historical Society are filled with these finds. It is thus not surprising that the section about pre-colonial archaeology includes overviews of investigations and findings by BAS archaeologists and their predecessors, not only to pay tribute to their important and often pioneering work, but also to present their stories about the Amerindian past in Barbados.

### **An Overview of Barbadian Historical Archaeology**

As noted above, historical archaeological research, despite the innovative work of Peter and Lys Drewett and their colleagues, outweighed that of the pre-colonial period in the later decades of the twentieth century. Historical archaeology in Barbados projects the 'rich diversity in cultural settings' and complexity of cultural expressions of the island and the broader Caribbean (Armstrong and Hauser 2009). Its study has addressed a variety of issues relating to colonialism, cultural contact and exchange, power relationships, conditions of enslavement, movements to freedom, and the materiality of transformations in the modern world. The timeline and themes of studies focusing on historical contexts fits within the broader trajectory of the archaeological study of the colonial and post-colonial eras in the region (see Caribbean overviews in: Armstrong and Hauser 2009; Armstrong 2013; Reid *et al.* 2014).

The nature of historical archaeological investigation in the region is inextricably linked to changes in ideology framed by an era of nation building and critique of colonial pasts. Historical archaeology emerged as a significant sub-discipline in an era in which Barbados, and the Caribbean, were exploring the impact of colonial expansion on indigenous peoples and the environment, the human trauma associated with the plantation system, and the criminal tragedy of slavery. Prior to the 1960s, archaeology was primarily associated with the study of the prehistoric peoples of the region, and when history was involved, archaeologists tended to focus on Columbus, the era of contact, restoration of forts, monuments, and historic architecture, and documentation of the passing colonial enterprise. In 1967, when Barbados hosted the second Caribbean Archaeology Conference (now IACA), the organization was called the International

Congress for the Study of Pre-Columbian Cultures in the Lesser Antilles and all of the papers addressed 'Pre-Columbian' topics (BMHS 1968). While the event took place at a time when Barbados was celebrating its independence (November 1966) and aiming to highlight its heritage, archaeologists in the region had not yet bridged the social and temporal divide of pre-history and history. Yet, The University of the West Indies had just expanded to Barbados (1963) and Trinidad (1960) from their base in Jamaica (founded in 1948), and West Indian scholars, particularly in the field of history, were engaged in the study of social reforms. Scholars throughout the region were engaged in a critical examination of the social lives of the enslaved, resistance, transitions of post emancipation society, labor relations, and nation building.

As early as the late 1950s exciting rediscoveries had been made at historic sites in the Caribbean, like Port Royal, Jamaica (Link 1960). These studies were hugely significant in the popularization of historical archaeology globally, but for archaeologists, the well-established tradition of equating archaeology to prehistory, particularly among North American scholars, slowed historical archaeology in the region. While often characterized as an outgrowth of changes in North American archaeology, the shift to a new series of questions in the Caribbean was equally influenced by scholars working in Africa, as well as endemic scholarship. In 1979, Desmond Nicholson (Antigua) desired to present a paper on materials from African-Antiguan living areas at the 8th Caribbean conference on St. Kitts, but was relegated to distribute his paper among interested parties and to publish it in the *Journal of the Virgin Islands Archaeological Society* (Nicholson 1979).

However, in light of the growing importance of new questions being addressed by historical archaeology, the scope of IACA was expanded, and at the next IACA, in Santo Domingo, Dominican Republic in 1981, a session was dedicated to colonial settlements and plantation contexts and addressing issues of the African Diaspora. Significantly, among the participants were Charles Fairbanks, who, along with Rochelle Marrinan, presented on their research at Puerto Real, Haiti (Fairbanks and Marrinan 1983) and Kathy Deagan (Deagan 1983) who presented on archaeological correlations between Florida and the Caribbean. Fairbanks was a key player in the demonstration of the value of historical archaeology to the study of sites associated with people of the African Diaspora and African retentions and 'Africanisms' in North America, based on archaeological studies of plantations (Fairbanks 1984). The conference also included watershed papers addressing the African Diaspora in the Caribbean presented by Merrick Posnansky (Posnansky 1983) and Douglas Armstrong (Armstrong 1983). Interestingly, Barbados Museum Director Ronald V. Taylor also made a brief intervention at the same session to trace the archaeological events of the island of Barbados and the writings on the subject. This presentation introduced what was to become his major endeavor – the eventual publication of his collation and collection of all the known published (and some unpublished) *Source Materials for the Study of the Archaeology and Pre-history of Barbados* launched at the 14<sup>th</sup> IACA Congress in 1991.

Jerome Handler had been engaged in ethno-historical and archaeological studies in Barbados, beginning with research on the African Barbadian potters at Chalky Mount (Handler 1963), and moving forward with studies that examined the record of Amerindian and African presence on the island (Handler 1969; 1970; 1974; 1977). By the mid-1970s Handler had turned his attention to plantation life and had begun

surveys aimed at examining the lives of the enslaved. He brought in archaeologist Frederick Lange to collaborate in a study that began as a search for enslaved laborer settlements and ultimately focused on a detailed study of the African laborer cemetery at Newton Plantation (Handler and Lange 1978). Their book, *Plantation Slavery in Barbados: An Archaeological and Historical Examination*, is a seminal publication that pointed the way forward and demonstrated the need for and a pathway to additional research in the region. The study concentrated on the exploration of the lives of the enslaved and their descendants and included detailed archaeological and historical research on estate records and material possessions included in burials.

The book was followed by a popular article in *Archaeology* (Handler and Lange 1979) and a series of articles that drew in a series of scientists to present detailed analyses. Articles based on the archaeological investigations at the Newton Plantation cemetery included studies that linked material goods within the grave to African materials and practices, including a study of grave goods like carnelian beads (Handler *et al.* 1979) and tooth mutilation practices (Handler *et al.* 1982). They also addressed health issues related to the living conditions of the enslaved, including a study of weaning practices (Corruccini *et al.* 1985), and the deleterious effect of lead in the laborers' diet (Corruccini *et al.* 1987). A summary of this research and exciting new directions still being undertaken can be found in Shuler *et al.*'s contribution to this volume.

The ensuing focus on enslaved plantation laborers is best understood within the political context of the socialization of history and archaeology in the region, whereby the overwhelming need to reconstruct the lives of non-elite people became mainstream following the Civil-Rights-era in the United States and the attendant post-independence and Black-Power-era in the Caribbean region. The emerging West Indian school of Caribbean History concerned itself with questions of the social lives of the enslaved, resistance, and the transition of society post emancipation, allowing such issues to mesh with those of the school of North American archaeologists who came to study in the region. It is this environment in which Handler began to undertake historic archaeological research throughout the 1970s and 80s – a tradition that would be expanded upon in the 1990s, especially through the work of Thomas Loftfield (1992; 2001). The focus on historical archaeology thus began decades after studies of Amerindian peoples were the focus of archaeological attention. However, the social resonance of the study of slavery and the struggle for freedom quickly became a dominant theme of archaeology in Barbados and the region.

Still in its relative infancy, the discipline of historic archaeology has in the last few decades only just begun to examine the development of historic settlement on the island in contexts associated with the enslaved (Agbe-Davies 2009; Armstrong 2015; Armstrong and Reilly 2014; Finch 2013; Finch *et al.* 2013; Stoner and Watson 2002), urban settings (Smith and Farmer 2004; Smith and Watson 2009; Finneran 2013), and tenancies (Reilly 2014; Bergman and Smith 2014). Primary arenas of study have thus far included burial practices (Handler and Lange 1978), the everyday lives of enslaved laborers on the plantation (Handler and Lange 1978; Handler *et al.* 1989), the development of sugar estates (Armstrong 2015), and the examination of creolization of pottery manufacture (Loftfield 2001; Scheid 2015). As research continues to expand, new avenues of investigation could include trade

networks, the creation of free villages (urban and rural), migration, and post-emancipation settlement patterns.

The archaeological study of plantation slavery in Barbados is part of a regional approach that has been similarly employed on other islands, especially those in the English-speaking Caribbean. In addition to the political climates that informed research approaches, anthropological questions surrounding African-American lifeways and culture were particularly influential for archaeologists working in plantation contexts throughout the region. These early investigations into enslaved life were interested in exploring whether the retention of African cultural traits, determined by an examination of the material culture, was possible and if so, what were its manifestations (see, for example Hauser and Armstrong 1999; Fairbanks 1984; Handler and Lange 1978; Handler 1989). This work, much of it inspired by the historical anthropological scholarship from the likes of Melville Herskovits (Herskovits 1941) and Sidney Mintz and Richard Price (Mintz and Price 1976), resulted in a literature replete with myriad discussions of the variety of African traits found through examinations of material.

Historical archaeology on the island has also responded to growing local and international interest in heritage tourism. Landmarks in and around Bridgetown that now function as major tourist attractions have hosted archaeological investigations that contribute to how these sites are understood and presented to the public, most notably the Jewish Synagogue and the George Washington House. At the former, a synagogue originally constructed in 1654, archaeologists made the ground-breaking discovery of what might be the Western Hemisphere's first *Mikveh*, a purification bath used by Jewish women (Miller 2010). Excavations at the George Washington House helped to contextualize the history of the property that was home to the future American President during his six-week stay on the island in 1751 (Agbe-Davies 2009). Frederick Smith's work at St. Nicholas Abbey (Smith, this volume) similarly combines archaeology and heritage tourism at a plantation context. This brand of historical archaeology raises significant questions regarding how heritage is promoted, what guides research, and how sites speak to issues of national identity or belonging.

Regardless of site or thematic interest, historical archaeology in Barbados is inherently a political endeavor. The physical work undertaken by researchers, the material culture collected, and the interpretations generated shape the way that Barbadians and visitors view the past and their place in Barbadian society. Frederick Smith's (Smith 2008) interpretation of material collected from Mapps Cave, for instance, suggests that such inconspicuous locales could have been social meeting places for the enslaved to drink alcohol, exchange information, and plot rebellions like the 1816 uprising. In this case, archaeology can be used to support nationalistic remembrances of debated figures like Bussa, who may have been one of the leaders of the infamous 1816 rebellion. Such weighty histories also come to bear on how archaeological research is undertaken. As a bitter newspaper exchange between Jerome Handler and prominent island historian Hilary Beckles in the *Advocate* and the *Nation* demonstrates, the exhumation of bodies of the enslaved at Newton Plantation, while an incredibly important academic study of burial practices, health, and identity of the enslaved, raised legitimate concerns about the ethics of non-Barbadian researchers disturbing the sacred resting places of the dead (see <http://jeromehandler.org/2000/03/the-1816-slave-revolt-in-barbados-an-exchange-in-barbados-newspapers/>).

According to David Watters (2001: 88):

*'Historical archaeology conducted by foreign archaeologists in the British West Indies is dominated by work at plantations and especially at 'sugar estates.'*

Similarly, Jerome Handler *et al.* (1989: 3), notes that:

*'archaeological research has been applied to the investigation of African-American cultures and New World slavery, primarily on plantation sites.'*

These assessments neatly encapsulate historical archaeological work that has been undertaken in Barbados since its inception in the second half of the twentieth century. As mentioned above, recent work on the island has expanded the scope of historical archaeological research, but there remains much to do if historical archaeology is to be able to speak to social and political realities of the twenty-first-century Caribbean. While the focus on burial practices of enslaved agricultural laborers on the plantation was much needed, other contexts and research subjects, such as urban slavery, domestic slavery, or skilled artisanship in rural settings have been far less studied.

Additionally, there needs to be a movement that seeks to ground archaeology in the region through thematic development beyond the plantation and search for ambiguous notions of Africanisms. New avenues of research might explore power relationships, issues of identity, marginality, economic development, and liminality in the construction of society across ethnic, legal, and gender lines. Additionally, new questions should address Barbadian life beyond slavery and the plantation. For instance, what does migration look like across the region and outside of it? How were free villages and societies formed? What were the trade networks established to provide for economic enfranchisement? Finally, how does one embed archaeological investigation within Caribbean society? What form is public archaeology to take in the next 50 years? How can archaeology on the island be more inclusive, encouraging Barbadians to be active participants and professionals? Many of these questions and topics are addressed by authors in this volume, and we are optimistic that historical archaeology in Barbados will strive to engage with the wants and needs of the Barbadian public in years to come. At the same time, these issues need to be addressed alongside policy that safeguards such heritage for future generations, a topic we take up in the Epilogue. Having set out some of the key historical milestones in the development of archaeological research on the island, we now turn to a detailed overview of the contents of the present volume.

### **The structure of this volume**

The section on pre-colonial archaeology<sup>3</sup> in Barbados starts with a chapter on the natural landscapes of Barbados by Maaïke de Waal. Chapter one sketches the physical setting that provides a background for the understanding of local conditions for pre-colonial habitation and exploitation of the island. In addition, the natural setting largely determines the possibilities for site and artifact preservation, and it thus strongly influ-

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3 Under the editorial supervision of Maaïke de Waal.

ences the type and representation of data that archaeologists can actually collect. The natural environment also dictates the possibilities for fieldwork, for example, related to the accessibility of terrain or to the visibility of artifact distributions at the surface.

The natural setting is followed by chapter two, in which Scott Fitzpatrick and Maaiké de Waal analyze evidence for Archaic-Age occupation in Barbados. Fitzpatrick was a member of the original crew to excavate the oldest indications for human presence in Barbados in the 1990s (Drewett 1991) and later he obtained additional C14 dates to support Drewett's argument for Archaic Age occupation in Barbados (Fitzpatrick 2011). In this chapter the work of Peter Drewett at Archaic-Age Heywoods (St. Peter) and its significance for Barbadian and Caribbean archaeology are discussed, and new observations on site location, the atypical Archaic archaeological assemblage, and mobility are presented.

Moving from the Archaic Age to Ceramic periods, chapter three is fully devoted to a presentation of the pre-colonial pottery of Barbados. As most chronological assignments for Ceramic Age sites have been made using ceramics, a chapter on this topic is a vital contribution for any such archaeological collection. The author, ceramic specialist Mary Hill Harris, has been a prominent member of the BAS projects since its inception in the 1980s, and she has been involved in pottery analyses in the Caribbean ever since. She shares her experiences, typological overviews, and new observations.

De Waal continues in chapter four with a discussion of Amerindian cultural landscapes in Ceramic-Age Barbados, describing the history of creating Barbadian site inventories and archaeological maps and the effects of the resulting biases on Amerindian site patterns as presented by Drewett (1991; 2000; 2007) and Bright (2011). Based on surface surveys and test excavations carried out in 2008-2009 and 2015 (De Waal in prep. a-c; De Waal and Lesparre 2018), this contribution includes new insights regarding site distributions, site locations, site types, and dating.

Finally, the pre-colonial section is closed by a contribution by independent researcher Quetta Kaye, another original BAS participant. Kaye's chapter (chapter five) on pre-colonial rituals, objects, and use of space in Barbados describes the symbolic world of Amerindian people in the Caribbean in general and they focus in on the particular evidence for ceremonial locations and activities that has been discovered in Barbados. This contribution is a fitting bookend to this section on Barbados' Amerindian past, highlighting that the island and its inhabitants were part of a broader, interconnected Caribbean network that has characterized the region since it was first inhabited by human beings.

Two sections of the volume deal with themes in historical archaeology, but this in no way indicates its import over that of pre-colonial archaeology. Rather, it reflects recent trends in the field that have given rise to more research projects dedicated to the more recent, colonial past. Section two<sup>4</sup> looks at recent archaeological research on plantation, urban and military landscapes, research that was pioneered on the island by Jerome Handler and Frederick Lange.

In chapter six Frederick Smith situates the important and well-visited site of St. Nicholas Abbey within wider approaches to the archaeological study of plantation landscapes, showing how the complex and difficult biography of this site can be

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4 Under the editorial supervision of Kevin Farmer and Matthew Reilly.

told. While many heritage sites associated with the plantation era throughout the Caribbean are reluctant to directly engage with the history of slavery, Smith highlights how these human stories can and should be told through the use of archaeological methodologies. The reality of slavery and its legacies should not be skirted at heritage sites, and Smith makes a compelling case for how plantation archaeology can provide a sustainable model for how difficult heritage can be addressed at even the most popular sites of tourism.

In chapter seven Douglas Armstrong brings us up-to-date on his ongoing work at Trents Plantation in the westerly parish of St. James. Here Armstrong has used early cartographic evidence and selective excavation to shed light upon some of the earliest phases of plantation life in the Anglophone Caribbean. Work at Trents demonstrates the important contributions made by archaeology to understanding a somewhat poorly documented yet critical period in Caribbean history. This research focuses on a period in which processes of modern capitalism were beginning to unfold on the island, just as the system of sugar and slavery began to crystalize. Data from later periods at the site highlight the everyday lifeways of enslaved laborers and even potential evidence of resistance against the plantocratic order.

While much archaeological research on the island and in the region remains committed to investigating the nuances of plantation life and production, urban centers offer similarly fruitful contexts for understanding Barbadian life throughout the colonial period (1627-1966). In chapter eight, Niall Finneran, along with archaeologist Alexander Gray and the historian and author Rachel Lichtenstein bring three different perspectives to bear to draw out the archaeological evidence for cosmopolitan and creolized identities at Speightstown (St Peter Parish), historically regarded as the island's third most important urban settlement after Bridgetown and Holetown.

Barbados was also a strongly fortified island. Military archaeology is an emerging theme across the wider Caribbean, and researchers in Barbados are also looking at the rich variety of fortifications present here. In chapter nine Alan Armstrong cuts to the core of social control and surveillance during the period of enslavement with his GIS study of watch towers that were constructed in the aftermath of the 1816 'Bussa' rebellion. This network of towers, including Gun Hill, Cotton, and Grenade Hall formed a network aimed at control, communication and rapid response against uprisings. However, in time the roles of these stations changed first to assisting commerce and coordination of time and events, and then, after the invention of the telephone, to points of tourism, holiday recreation, and pleasure. Today, their initial role of control over the laboring population has been replaced by their use as social moonlight cocktail parties that are organized monthly by the Barbados National Trust.

The final contribution in this section by Derek Miller (chapter ten) sheds light on another segment of colonial society. Sephardic Jewish settlement in Barbados dates back to the mid seventeenth century, and the presence of these communities of Jews who had been expelled from Iberia in the sixteenth century and had found a welcome in the mercantile setting of Amsterdam is noted within the wider Caribbean context. Prime movers in the development of the Barbadian sugar trade from their bases in Dutch Brazil (Pernambuco), synagogues were established at Bridgetown and Speightstown. Miller's contribution sheds light upon the material culture and ritual or-



ganization of a Jewish community long disappeared, but whose social memory lives on in the museum, cemeteries and synagogue of the Nidhe Israel complex in Bridgetown.

A number of chapters within section three <sup>5</sup> could equally have found a home in section two, but they are all united by a more scientific and material-science approach to reconstructing diet and technology, albeit from a more historical archaeology perspective. In chapter eleven Kevin Farmer, Jeffrey Ferguson and Michael Glasscock examine traditional potting and ceramic industries on Barbados. Using archaeometric techniques, they are able to draw conclusions about clay sourcing and potting localities. Building on Jerome Handler's ethnohistorical and anthropological research on the potting tradition in Chalky Mount, this study provides new insights into ceramic form and manufacture, demonstrating how technology is beginning to address previously unanswerable questions.

In chapter twelve the focus switches to human remains. Kristrina A. Shuler, Hannes Schroeder, and William Stevens present exciting new developments in the analysis of human skeletal material from Handler and Lange's excavations, combining a broad range of data to yield an insight into health issues among enslaved populations at Newton. While not directly concerned with the politics associated with the excavations of the burials and the ensuing research, the chapter highlights the important role that human remains can have in the wider narrative of nation-building processes.

In chapter thirteen Kevin Farmer and Chris Crain present bioarchaeological data from skeletal material in two Bridgetown urban settings: Fontabelle and Pierhead, and these data can be viewed against the material presented in the preceding chapter from a plantation setting. Urban archaeological sites have their own issues, and these sites were discovered in the course of development as opposed to being excavated within the relatively leisurely context of a 'research' excavation. It is to the credit of the developers that they paused work and allowed this valuable analysis to be undertaken.

A more overt application of archaeometric techniques is presented by Lindsay Bloch in chapter fourteen. Bloch uses LA-ICP-MS (Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry) analysis to carry out chemical characterization of a sample of 117 sherds, 114 of which come from Trents Plantation. These materials come from a variety of well-defined pre-sugar and sugar era planter contexts as well as from discrete house sites within the enslaved laborer settlement at Trents. This study of Barbadian earthenware is part of a larger study that included large samples from England, Jamaica, and Virginia (Bloch 2015; Bloch *et. al* 2017). The comparative sample allows for comparison of composition that extends to England, North America, and Jamaica, thereby illuminating the distinctiveness of the Barbadian wares. The analysis shows a variety of composition types were present at Trents and that many including the domestic earthenware and most of the industrial sugar wares show compositional groupings that indicate that they were made in Barbados.

Finally, and remaining at Trents, Diane Wallman's study presented in chapter fifteen focuses upon human-animal relationships in the plantation setting and to date this is the only zooarchaeological study that has been completed for a colonial period plantation in Barbados. Wallman presents an overview of historical records relating to Barbadian foodways that derives from the historical record and expands a previous

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5 Under the editorial supervision of Douglas Armstrong and Matthew Reilly.

ethnohistorical study that she co-authored with Jerome Handler (2014). Data from all social contexts and time periods represented at the site are presented and compared.

In the final segment of the volume we analyze approaches to the management of Barbados' rich cultural heritage, focusing (as an archaeological volume would suggest) upon tangible cultural heritage (but this is not to ignore the range and diversity of intangible cultural expressions found on the island today, evidencing a rich creolized identity). In 2011 Historic Bridgetown and its Garrison was inscribed upon the UNESCO World Heritage Site list, the culmination of much hard work by local heritage professionals. It joins a range of Caribbean UNESCO World Heritage Sites on a schedule that is still uncomfortably Eurocentric. Away from this heritage superstar site, however, there are a range of smaller, less recognized initiatives that emphasize community approaches. In section four <sup>6</sup> we consider some of these approaches.

In chapter sixteen Matthew Reilly and Ainsley Norris present a community heritage approach to their pioneering study of the 'Redleg' populations on the eastern side of the island. This island minority, many said to be the direct descendants of poor seventeenth-century indentured servants, has long lived on the margins of Barbadian society with little recognition or proper historical/archaeological attention. The authors provide a valuable corrective to this issue, highlighting how archaeological professionals and community members can and should work together to build inclusive models for studying Barbadian life in the past and present.

In chapter seventeen educational practitioners Lucy Willans and Liesje Cole-Pragnell look at how the study of heritage in its broadest sense can positively impact upon very young children. They emphasize imaginative and creative approaches to teaching heritage grounded in recent pedagogical theory. It is important to build sustainable heritage policy and this can only be done through education. The authors take a different constituency here, pre-school children, and this places special demands upon curriculum design and delivery. The authors propose a model that could theoretically be applied in any similar setting.

In chapter eighteen Niall Finneran along with heritage professional Laura Hampden and archivist Alice Lathbury critically assess the implications for digital tools in making cultural heritage more democratic, open and (a crucial term) participatory. These are new and exciting ways of working within the heritage sector. Catalogues and other research resources can be made viewable online with positive implications for accessibility. In addition, as discussed here, new crowd sharing platforms can enhance the viability and sustainability of heritage databases. As technology develops, application of digital platforms to the heritage sector is limited only by our imaginations.

In chapter nineteen University of the West Indies (Cave Hill) academic Tara Inniss reflects upon the recent phenomenon of heritage trails, linking heritage sites in the landscape through walking routes, and thus increasing the visibility of, and accessibility to, more obscure heritage sites. In Barbados this has been successfully undertaken with the development of a historic trail following the line of the old railway, but the heritage trail concept offers a useful approach to the interpretation of long disappeared sites associated with the slave trade in Bridgetown. These more unstructured forms of

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6 Under the editorial supervision of Niall Finneran.

heritage interpretation, linked sites with the freedom to move between them, offer a new and inclusive (and cost effective) approach to heritage management.

In the final chapter (twenty) Niall Finneran considers the place of maritime heritage in Barbados and shows that in comparison with other Caribbean islands, Barbados' cultural relationship with the sea is relatively poorly known. When people think about maritime archaeology they think of underwater archaeology, and this is particularly pertinent in the Caribbean where the image of the sunken Spanish treasure ship still grips the popular imagination. In this contribution Finneran demonstrates that maritime heritage encompasses the land as well, and a range of artifacts and foodways, tangible and intangible heritage.

The expansive and diverse research presented by contributors to this volume demonstrates that a relatively small Caribbean island is home to an incredibly rich archaeological record. We hope that these contributions provide a taste of the range of archaeological work being undertaken in Barbados, and how these approaches can be contextualized within wider Caribbean framework. Protecting and promoting this material heritage is an ongoing, political process that involves archaeologists, government officials, institutions, island visitors, and members of the Barbadian public. We therefore hope that the following chapters inspire a growing interest in Barbados' material past that engages with critical issues of social relevance. While this introduction has predominantly been about the past and present of Barbadian archaeology, it will become evident that there is a deep commitment to a future of island archaeology that builds on the work of those who have come before us. As we look forward to the challenges of the twenty first century, we hope that some of the issues aired here can be used to provide a springboard to more focused research priorities, for as with many other Caribbean islands, Barbados needs to find the balance between preservation and development.

## References

Agbe-Davies, A.

2009 Scales of analysis, scales of value: archaeology and Bush Hill House, Barbados. *International Journal of Historical Archaeology* 13/1:112-126.

Armstrong, D.

1983 The Drax Hall slave settlement, Jamaica: site selection procedures. In *Proceedings of the Ninth International Association of Caribbean Archaeologists Conference, Santo Domingo, 1981*, edited by L. Allaire and F. Mayer, pp. 432-442. Centre de Recherches Caraïbes, Université de Montréal, Montréal.

2013 New directions in Caribbean historical archaeology. In *Oxford Handbook of Caribbean Archaeology*, edited by W. Keegan, C. Hofman and R. Rodriguez Ramos, pp. 525-541. Oxford University Press, Oxford.

2015 Archaeology of the enslaved laborer settlement at Trents Plantation: 2014-2015. *Journal of the Barbados Museum and Historical Society* 61:146-177.

- Armstrong, D. and M. Hauser.  
 2009 A sea of diversity: historical Archaeology in the Caribbean region. In *International Handbook of Historical Archaeology*, edited by T. Majewsky and D. Gaimster, pp. 583-612. Springer Science, New York.
- Armstrong, D. and M. Reilly.  
 2014 The archaeology of settler farms and early plantation life in seventeenth-century Barbados. *Slavery & Abolition: A Journal of Slave and Post Slave Studies* 35/3:399-417.
- BMHS – Barbados Museum and Historical Society.  
 1968 *Proceedings of the Second International Congress for the Study of the Pre-Columbian Cultures of the Lesser Antilles, St. Ann's Garrison, Barbados, July 24-28, 1967*. Barbados, Barbados Museum and Historical Society, St. Ann's Garrison, Barbados.
- Barton, G.  
 1979 *The Prehistory of Barbados*. The Layne Company, Halifax [reprint from first edition 1953].
- Bergman, S. and F. Smith.  
 2014 Blurring disciplinary boundaries: the material culture of improvement during the age of abolition in Barbados. *Slavery and Abolition* 35/3: 418-436.
- Bullen, R.  
 1968 Some Arawak ceramic variations between Grenada, Barbados, St. Lucia, and Eastern Trinidad. In *Proceedings of the Second International Congress for the Study of the Pre-Columbian Cultures of the Lesser Antilles, St. Ann's Garrison, Barbados, July 24-28, 1967*, edited by BMHS, pp. 81-86. Barbados, Barbados Museum and Historical Society, St. Ann's Garrison, Barbados.
- Bullen, R. and A. Bullen.  
 1968 Barbados Archaeology: 1966. In *Proceedings of the Second International Congress for the Study of the Pre-Columbian Cultures of the Lesser Antilles, St. Ann's Garrison, Barbados, July 24-28, 1967*, edited by BMHS, pp. 134-144. Barbados, Barbados Museum and Historical Society, St. Ann's Garrison, Barbados.
- Bright, A.  
 2011 *Blood is Thicker than Water. Amerindian intra- and inter-insular relationships and social organization in the pre-Colonial Windward Islands*. Sidestone Press, Leiden.
- Chester, G.  
 1869 *Chester's Transatlantic Sketches in the West Indies, South America, Canada, and the United States*. Smith, Elder and Company, London.
- Cooksey, S.  
 1912 The first Barbadians. *Timehri* 2:142-144.
- Corruccini, R., A. Aufderheide, J. Handler and L. Wittmers.  
 1987 Patterning of skeletal lead content in Barbados slaves. *Archaeometry* 29:233-39.

- Corruccini, R., J. Handler and K. Jacobi.  
 1985 Chronological distribution of enamel hypoplasias and weaning in a Caribbean slave population. *Human Biology* 57:699-711.
- Cummins, A.  
 2013 Natural history = national history. Early origins and organizing principles of museums in the English-speaking Caribbean. In *Plantation to Nation: Caribbean Museums and National Identity*, edited by A. Cummins, K. Farmer and R. Russell, pp. 11-46. Common Ground Publishers, Champaign, IL.
- Cummins, A., K. Farmer and R. Russell (editors).  
 2013 *Plantation to Nation: Caribbean Museums and National Identity*. Common Ground Publishers, Champaign, IL.
- Curet, L. and M. Hauser.  
 2011 *Islands at the Crossroads: migration, seafaring and interaction in the Caribbean*. University of Alabama Press, Tuscaloosa.
- Deagan, K.  
 1983 Spanish Florida as part of the Caribbean colonial sphere. *Proceedings of the Ninth International Association of Caribbean Archaeologists Conference, Santo Domingo, 1981*, edited by L. Allaire and F. Mayer, pp. 419-429. Centre de Recherches Caraïbes, Université de Montréal, Montréal.
- De Waal, M.  
 In prep. a. Amerindian remains at Golden Mile, Speightstown, Barbados.  
 In prep. b. Little Bay, St. Lucy, Boscobelle Bay, St. Andrew, and Skeetes Bay Plateau, St. Philip, Barbados. Pre-colonial settlement in eroding coastal landscapes.  
 In prep. c. Pre-colonial settlement at Three Houses, St. Philip, Barbados.
- De Waal, M. and J. Lesparre.  
 2018 *Investigating a prehistoric Amerindian village in Three Houses, Barbados (2009, 2015)*. Information panel for the permanent archaeological exhibition at Golden Grove, Barbados.
- Drewett, P.  
 1991 *Prehistoric Barbados*. Archetype Publications, London.  
 2000 *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*. Archetype Publications, London.  
 2007 *Above Sweet Waters. Cultural and Natural Change at Port St. Charles, Barbados, ca. 1750 BC – AD 1850*. Archetype Publications, London.
- Fairbanks, C.  
 1984 The plantation archaeology of the south-eastern coast. *Historical Archaeology* 18/1:1-14.

- Fairbanks, C. and R. Marrinan.  
 1983 The Puerto Real project, Haiti. In *Proceedings of the Ninth International Association of Caribbean Archaeologists Conference, Santo Domingo, 1981*, edited by L. Allaire and F. Mayer, pp. 409-417. Centre de Recherches Caraïbes, Université de Montréal, Montréal.
- Fewkes, J.  
 1915 Archaeology of Barbados. *Ethnology* 1/1:47-51.
- Finch, J.  
 2013 Inside the pot house: diaspora, identity and locale in Barbadian ceramics. *Journal of African Diaspora Archaeology and Heritage* 2/2:115-130.
- Finch, J., D. Armstrong, E. Blinkhorn and D. Barker.  
 2013 Surveying Caribbean cultural landscapes: Mount Plantation, Barbados, and its global connections. *Internet Archaeology* 35. Council for British Archaeology. doi:10.11141/ia.35.5. Open Access at: [http://intarch.ac.uk/journal/issue35/finch\\_index.html](http://intarch.ac.uk/journal/issue35/finch_index.html) (accessed 21 February 2019).
- Finneran, N.  
 2013 'This islande is inhabited with all sortes'. Creolising the townscape: towards an archaeological biography of Speightstown Barbados. *Antiquaries Journal* 93: 319-51.
- Fitzpatrick, S.  
 2011 Verification of an Archaic Age Occupation on Barbados, Southern Lesser Antilles. *Radiocarbon* 53/4: 595-604.
- Forte, J.  
 1882 Note on Carib Chisels. *The Journal of the Anthropological Institute of Great Britain and Ireland* 11: 2-3.
- Froude, J.  
 1888 *The English in the West Indies: Or the Bow of Ulysses*. Longmans, Green, and Company, London.
- Griffith, W.  
 1879 Notes on Charib Implements in Barbados and the neighbouring (West Indian) Islands. *Proceedings of the Cambridge Antiquarian Society* 3/4:295-302.
- Hackenberger, S.  
 1987 *Archaeological Investigations, Barbados, West Indies, 1986*. Typescript, Barbados Museum, Bridgetown.  
 1988 An abstract of archaeological investigations by the Barbados Museum, 1986. *Journal of the Barbados Museum and Historical Society* 38:155-62.
- Handler, J.  
 1963 A historical sketch of pottery manufacture in Barbados. *Journal of the Barbados Museum and Historical Society* 30:129-53.  
 1969 The Amerindian slave population of Barbados in the seventeenth and early eighteenth centuries. *Caribbean Studies* 8:38-64.

- 1970 The Amerindian slave population of Barbados in the seventeenth and early eighteenth centuries. *Journal of the Barbados Museum and Historical Society* 33:111-135.
- 1974 *The Unappropriated People: Freedom in the Slave Society of Barbados*. The Johns Hopkins University Press, Baltimore.
- 1977 Amerindians and their contributions to Barbadian life in the Seventeenth Century. *Journal of the Barbados Museum and Historical Society* 35:189-210.
- Handler, J., M. Conner and K. Jacobi.
- 1989 *Searching for a Slave Cemetery in Barbados, West Indies: A Bioarchaeological and Ethnohistorical Investigation*, Southern Illinois University at Carbondale Center for Archaeological Investigations, Research Paper No. 59.
- Handler, J., R. Corruccini and R. Mutaw.
- 1982 Tooth mutilation in the Caribbean: evidence from a slave burial population in Barbados. *Journal of Human Evolution* 11:297-313.
- Handler, J. and F. Lange.
- 1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. Harvard University Press, Cambridge, Ma.
- 1979 Plantation Slavery in Barbados, West Indies. *Archaeology* 32/4:42-52.
- Handler J., F. Lange and C. Orser.
- 1979 Carnelian beads in necklaces from a slave cemetery in Barbados. *Ornament: A Quarterly of Jewellery & Personal Adornment* 4:15-18.
- Handler, J. and D. Wallman.
- 2014 Production activities in the household economies of plantation slaves: Barbados and Martinique, mid-1600s to mid-1800s. *International Journal of Historical Archaeology* 18/3: 441-466.
- Hauser, M. and D. Armstrong.
- 1999 Embedded identities: piecing together relationships through compositional analysis of low fired Earthenware. In *African Sites Archaeology in the Caribbean*, edited by J. Haviser, pp. 65-93. Markus Wiener, Princeton.
- Herskovits, M.
- 1941 *The Myth of the Negro Past*. Harper, New York.
- Hicks, D. and J. Cooper.
- 2013 The Caribbean. In *World Archaeology at the Pitt Rivers Museum: A Characterization*, edited by D. Hicks and A. Stevenson, pp. 401-408. Archaeopress, Oxford.
- Hughes, G.
- 1750 *The Natural History of Barbados: In Ten Books*. Published by author, London.
- Lace, M., J. Mylroie, J. Mylroie, P. Kambesis and H. Machel.
- 2013 Geoarchaeology of the caves of Barbados, West Indies. *Journal of Caribbean Archaeology* 13:43-79.

- Ligon, R.  
1657 [2014]. *A True and Exact History of the Island of Barbados* (edited by David Smith. E-text, 5<sup>th</sup> edition) available online at <https://www.davidchansmith.net/the-richard-ligon-project>. (accessed 12<sup>th</sup> February 2019).
- Link, M.  
1960 Exploring the drowned city of Port Royal. *National Geographic Magazine* 117:151-182.
- Lofthfield, T.  
1992 Unglazed red earthenware from Barbados. *Journal of the Barbados Museum and Historical Society* 40:19-36.  
2001 Creolization in seventeenth-century Barbados: two case studies. In *Island Lives: Historical Archaeologies of the Caribbean*, edited by P. Farnsworth, pp. 207-233. University of Alabama Press, Tuscaloosa.
- Miller, D.  
2010 The Bridgetown Synagogue pathway archaeological project: a preliminary report. *Journal of the Barbados Museum and Historical Society* 56:87-104.
- Mintz, S. and R. Price.  
1976 *The Birth of Afro-American Culture*. Beacon, Boston.
- Nicholson, D.  
1979 The Dating of West Indian Historic Sites by the Analysis of Ceramic Sherds. *Journal of the Virgin Islands Archaeological Society* 7:53-74.
- Posnansky, M.  
1983 Towards an archaeology of the Black Diaspora. In *Proceedings of the Ninth International Association of Caribbean Archaeologists Conference, Santo Domingo, 1981*, edited by L. Allaire and F. Mayer, pp. 443-450. Centre de Recherches Caraïbes, Université de Montréal, Montréal.
- Reid, B., C. Hofman, G. Gilmore III, and D. Armstrong.  
2014 Introduction: Caribbean prehistoric and historical archaeology. In *Encyclopedia of Caribbean Archaeology*, edited by B. Reid and G. Gilmore III, pp. 1-30. University Press of Florida, Gainesville.
- Reilly, M.  
2014 At the Margins of the Plantation: Alternative Modernities and an Archaeology of the 'Poor Whites' of Barbados. Unpublished PhD Dissertation, Syracuse University, New York.
- Scheid, D.  
2015 The Political Economy of Ceramic Production in Barbados: from plantation industry to craft production. Unpublished PhD dissertation, Syracuse University, New York.
- Seidmann, G.  
2006 The Rev. Grenville John Chester and 'The Ashmolean Museum as a home for archaeology in Oxford'. *Bulletin of the History of Archaeology* 16/1:27-33.



- Smith, F.  
2008 *The Archaeology of Alcohol and Drinking*. University of Florida Press, Gainesville.
- Smith, F. and K. Farmer.  
2004 Hometown: archaeological investigations at the site of the first British settlement in Barbados. *Journal of the Barbados Museum and Historical Society* 50:49-65.
- Smith, F. and K. Watson.  
2009 Urbanity, sociability, and commercial exchange in the Barbados sugar trade: a comparative colonial archaeological perspective on Bridgetown, Barbados in the seventeenth century. *International Journal of Historical Archaeology* 13/1:63-79.
- Stoner, M. and K. Watson.  
2002 *Explorations at the George Washington house: archaeology in the Gully*. Unpublished Report, University of the West Indies, Cave Hill, Barbados.
- Watters, D.  
2001 Historical archaeology in the British Caribbean. In *Island Lives: Historical Archaeologies of the Caribbean*, edited by Paul Farnsworth, pp.82-99. University of Alabama Press, Tuscaloosa.



Section One

# **Pre-colonial Archaeology**

*Under the editorial direction of Maaïke S. de Waal*



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# Barbados' Natural Landscapes. Conditions for Pre-Colonial Settlement, Site Preservation and Archaeological Fieldwork

*Maaïke S. de Waal*

## **Abstract**

This chapter aims to describe the natural landscapes of Barbados. The objectives are threefold: it provides an insight into the landscape helping us understand how people in the past lived, used and experienced that landscape, and what were the possibilities and limitations the landscape put on human habitation and exploitation in pre-colonial times. Knowing the character and extent of natural processes altering the natural environment over time allows estimates of how much and what types of information may be lacking from our inventories. This can also indicate which areas and which sites are likely victims of (further) damage by natural processes and may help archaeologists set priorities in outlining areas to protect, manage or document. Last but not least, an understanding of the present-day natural environment is essential to understand the possibilities and limitations the landscape poses on archaeological investigations in the field.

**Keywords:** *landscape, pre-colonial archaeology, taphonomy.*

## **Natural setting of Barbados**

Barbados is one of the southern Windward Islands (figure 1.1), situated 150 km (c. 93 miles) east of its closest neighboring islands of St. Vincent and St. Lucia. Whereas the other Lesser Antillean islands are inter-visible, with consequences for navigation, communication, interaction and exchange, Barbados is detached from the other islands. The island is pear-shaped, measuring 34 km (21 miles) from south to north and 23 km (14 miles) from west to east, and extends over 430 km<sup>2</sup> of land surface (or 267 square miles). Mount Hillaby (340 m; 1115 feet) is its most elevated point



Figure 1.1 The Caribbean and the location of Barbados.

(figure 1.2). The island has a 97 km (60 mile) long coastline (UN Environment 2017). The west and south coasts are easily accessible from the sea. The east coast, battered by Atlantic currents, is harder to approach, but skilled seafarers would still be able to find small natural harbors along the southern and western coasts.

### Geology and geomorphology

Barbados has a different origin and build-up when compared to the other Windward Islands. The oldest sediments of Barbados were created ca. 50 – 20 million years BP. Tectonic processes, involving the Atlantic Plate being pushed under the Caribbean Plate, created a trough that was gradually filled with clastic sediments from rivers from the South American continent. Skeletons of dead plankton added to these deposits, creating chalk and radiolarite. At around 10 million years BP, tectonic uplift deformed the clastic sediments by developing faults and folds and pushing clastic layers in and over each other. They in turn were covered by oceanic sediments, such as claystones and chalk. From ca. 2 – 1 million years BP, the deposited sediments were pushed up, forming the early beginning of Barbados: today's Scotland District. The same tectonic processes formed the other Windward Islands by pushing up magma and creating volcanoes (Machel 1999: 9-14). Barbados has no volcano but ash bands, resulting from eruptions on other islands, do occur in the geological stratigraphy (Burchmore Harrison and Jukes-Browne 1890: 18; 87; Donovan and Harper 2005: 21; Machel 1999: 5), as do incidental volcanic rock fragments that were transported to Barbados in bird guano (Burchmore Harrison and Jukes-Browne 1890: 5-6).

Reefs began to develop in the shallow waters around the uplifted area that is now the Scotland District, but not east of it. The reefs generally developed into limestone platforms. Tectonics pushed the oldest platform out of the sea around 500,000 years BP, forming the Upper Coral Rock terrace, bordered by the Second High Cliff and Hackleton's Cliff (Machel 1999: 15; 19). Around 120,000 years BP, the Middle Coral Rock terrace rose out of the sea, bordered by the First High Cliff, followed by the

Figure 1.2. Barbados, with the locations of (1) Mount Hillaby, (2) Scotland District, (3) Hackleton's Cliff, (4) Welchman Hall Gully, (5) Graeme Hall wetland, (6) Chancery Lane swamp, (7) Long Pond, (8) Green Pond, (9) Bathsheba, (10) Holetown, (11) Three Houses spring, (12) the impact area of the 1901 'Boscobel Landslip (After Cruden et al 2014: figure 5) and (13) Bridgetown (Google maps).



Lower Coral Rock terrace ca. 60,000 years BP (Machel 1999: 21). Thus there developed a terraced landscape, with a highest point in the central part of the island with flats decreasing in age and elevation towards the coasts, largely consisting of coral rock limestone (Humphrey 1997: 383). The Scotland District has clearly exposed, relatively soft, clastic sediments, including claystones, sand and siltstones, volcanic ash layers, chalk, and radiolarite, which forms chert or flint, when hardened (Machel 1999: 5; 25). Chert was also reported at Coconut Grove, ca. 3 km (2 miles) to the west of Bathsheba (Donovan and Harper 2005: 29). Soft red, yellow and white clays cover the rocks in the Scotland District. These clays, very different from the red decalcification clays, which occur on the plateaus (Burchmore Harrison and Jukes-Browne 1890: 7), are being used by Chalky Mount potters. A special feature is the presence of oil, which is extracted from fields at 1,000 – 2,000 m (c. 3000-6000 feet) depth, but which also surfaces in oil or tar seeps (Machel 1999: 5; 23).

Because of the relative softness of the rocks, surface water easily created and enlarged gullies, caves and sinkholes, a process that continues today, resulting in a dynamic landscape (Machel 1999: 23). According to Kambesis and Machel (2013: 227), the island has more than 100 caves, hundreds of gullies, and more than 2,800 sinkholes. New caves continue to be discovered. In other Caribbean islands caves were used for shelter during storms or hurricanes and for ceremonial purposes (cf. De Waal

2006: 58; Kaye this volume chapter 5). Harrison's Cave and Cole's Cave are the longest (ca. 2 km / 1 mile) stream caves in Barbados (Kambesis and Machel 2013: 234). Some gullies are sizeable as well, for example Welchman Hall Gully measures 1 km / 0.6 mile (Donovan and Harper 2005: 31). Seawater also caused erosion, which created sea caves and sea stacks (Machel 1999: 25). As result of tectonic uplift, sea caves and sea stacks can be found inland as well.

Barbados has many beaches. West and south coast beaches are bordered by coral rocks and reefs; in the east, in Scotland District, and on the south coast beaches have dunes, which may cover archaeological sites. The east coast, not protected by reefs, has steep cliffs and accessible sandy bays. Beach-rock formation processes have taken place in the intertidal zone of several beaches on Barbados (Bailey *et al.* 2015). This process usually threatens the preservation of archaeological sites. At Heywoods, several human burials were badly preserved as they had become concreted into beach-rock (Drewett 2004: 220). In some instances, beach-rock prevents erosion and thus stimulates site survival (cf. De Waal 2006: 56-57).

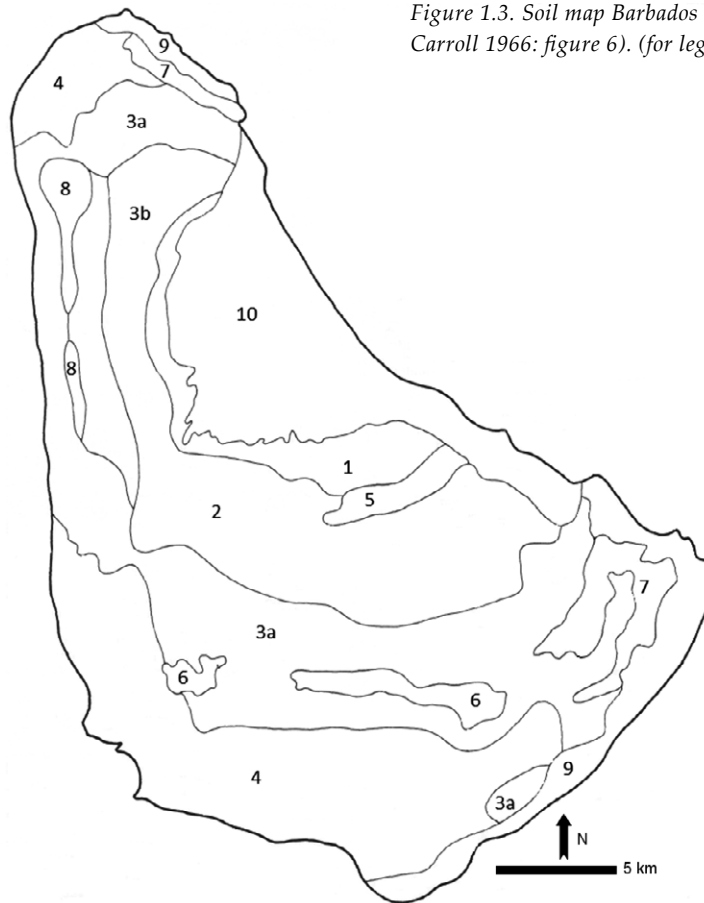
### **Erosion and sedimentation**

Heavy rain, high wind, exposed relief and a lack of substantive vegetation encourage erosion and sedimentation processes, which are worsened by removal of vegetation from slopes for agricultural purposes and by overgrazing. Parts of Barbados are known to have been greatly influenced by landslides, soil creep or mudflows. When looking at the devastating effect of one of the largest historic landslides in Barbados, the 'Boscobel Landslip' of 1901 (Cruden *et al.* 2014), one can imagine the impact of this type of natural process on conditions for human settlement and site survival. In 1901, after months of rainfall, the ground was fully saturated and partially eroding. A passing tropical storm brought more rain, causing sliding of ten million cubic meters of soil and rock down the steep slopes and 40-80 houses were destroyed (Cruden *et al.* 2014: 683). *In situ* pre-colonial finds can no longer be expected in this area (see figure 1.2). Cruden *et al.* (2014: 673) suggested that the oldest strata of the Scotland District, consisting of sandstone and shale, are vulnerable for massive soil creep and landslides. Minor displacement of earth layers frequently occurs as well, resulting in damaged houses and roads (Cruden *et al.* 2014: 674) and sometimes in severe infrastructural damage as parts of roads and bridges can be washed away (personal observation September 2008).

Rockfalls also occur, mostly at the edges of elevated cliffs on the northern and eastern coasts, as result of coastal dynamics (see below), and at the edges of inland gullies, because of continuous limestone dissolution. Superficial slope erosion, aeolic erosion in flat areas that are not protected by vegetation cover, and resulting sedimentation of transported materials, take place all over the island. These processes bring archaeological materials to light by removing covering sediment. In locations where materials are exposed and vulnerable to destruction, the impact is severe (cf. De Waal in prep. a).



Figure 1.3. Soil map Barbados (after Vernon and Carroll 1966: figure 6). (for legend see p. 51).



### Coastal dynamics

Coastal dynamics have seriously affected Barbados over time. The First High Cliff is constantly battered by waves, especially its northern and eastern parts, and cliff edges (break and fall down. This process is accelerated when sea caves collapse under pressure of wave action and karstification processes (Machel 1999: 34). The impact of coastal erosion largely depends on the presence of reef systems. Fringing reef systems protect island coasts. Therefore, the eastern side of the island is prone to severe erosion, a process that is reinforced as prevailing easterly winds that predominate on this coast and the impact of wave action from the Atlantic is much stronger than that of the Caribbean Sea. The west coast experiences gentler wave action (Humphrey 1997: 381), although this also results in washing away sandy beaches and even results in undermining and breaking of solid rock. Beach erosion, evidenced by steep, almost vertically eroded, beach slopes (personal observation 2008-2009), is problematic as complete archaeological sites may disappear in the sea. Erosion rates differ from beach to beach and are hard to establish. Nurse *et al.* (1995: 24) provide estimates for a few beaches, recording mean annual percentage changes ranging between -0.9% to -16%. As a result of human caused disruptions in sedimentation these percentages can rise up

to -47% to -82%. Beach-rock formation processes, consolidating sand, slow down (but do not halt) erosion of sandy beaches.

In other coastal areas of Barbados, particularly in the Scotland District, beaches have dunes. Dunes, having little to no vegetation, are unstable landscape features as they are easily moved by wind, a process that is greatly accelerated by tropical storms. This may cover and displace archaeological materials. Mangroves, salinas and other wetland areas (mainly on the southern coast) are also unstable and vulnerable to erosion as a result of wind and water. Sea levels have been rising over several millennia and this process strongly influenced coastal dynamics. As Cooper (2013: 54) stresses, local bathymetry, coastal sedimentation processes and tectonic activity are responsible for this variation, but the general regional picture for the Caribbean points at a relative sea level rise of over 5 m (16 feet) since the beginning of pre-colonial occupation. Data from other parts of the Caribbean (summarized in De Waal 2006: 61) suggest that c. 3000-2000 BC sea levels were 2 – 5 m (6-16 feet) lower and that from c. 300 BC onwards they more or less equal the present one. As beaches shift inland when sea levels rise (Fish *et al.* 2008: 331), sites that were not directly at the coast may have been covered. Sea level rise is continuing and threatening the island's coasts, including the archaeological sites located there. This process is not always a gradual one; there may also be tidal waves or tsunamis. Tidal waves do occur in Barbados, usually causing modest damage but occasionally tsunamis with a serious impact on coastal conditions occur (UN Environment 2017).

The impact of dynamic coastal change in Barbados has not been estimated yet, so it is not known how many archaeological sites are missing from the record as result of these processes. Human action can also destroy beaches. For the creation of Port St. Charles marina, Heywoods beach and associated archaeological sites were completely dug out in the 1990's. A few years ago, Port Ferdinand Resort marina was created immediately to the north of Port St. Charles by digging out part of the estuary of a stream in Six Men's and completely removing land just behind the shore. Less visible, but yet important, are the alterations made to beaches for tourism, a crucial aspect of Barbados' economy. According to Fish *et al.* (2008: 332), few undeveloped beachfront areas exist along the west and south coasts. The west coast probably had several mangrove swamps and marine inlets, offering a varied and attractive ecological setting for pre-colonial groups, instead of today's almost continuous stretch of beaches (Drewett 1995: 275).

## **Climate**

Barbados has a humid to sub-humid tropical maritime climate with a mean annual temperature ranging between 23 to 30 Celcius (73-90 Fahrenheit), and with small daily and seasonal variations. The island is within the path of eastern trade winds (Humphrey 1997: 381), which means that the eastern coast of the island is often exposed to strong winds. Two seasons can be distinguished: a dry season between December/January and May and a wet season between June and November/December. As result of global climate change seasons seem to end 3-5 weeks later than used to be the case (Kambesis and Machel 2013: 228).

A significant factor in the Caribbean is the almost annual passage of tropical storms and hurricanes during the wet season. Barbados is situated just south of the main hurricane passages, which greatly reduces the chance (to about once in 50 years) that

the island is hit by a hurricane (Tout 1968: 16). However, hurricanes passing elsewhere in the region may cause tidal waves and heavy rains and, as a result, more regular mud streams and landslides in Barbados (see above). Undated tsunami deposits have even been identified on Barbados' west coast (Scheffers and Kelletat 2006, cited in Dunning *et al.* 2018).

Rainfall varies in different parts of the island, the south-east, north-east and south-west being the driest with annual rainfall under 1270 mm (50 inches) and the central and northern upland areas being the wettest with over 2030 mm (80 inches) rainfall annually. Yet, it is important to realize that a great monthly and annual variation exists as high totals may be the result of heavy storms passing by (Tout 1968: 9-10). During the wet season, Barbados is regularly hit by heavy rains causing erosion, flash floods and infrastructure damage, with obvious negative effects for island inhabitants.

Knowing if and in what ways seasonality, precipitation, temperature, humidity and winds in pre-colonial times differed from today, may help understand factors that influenced the suitability of the landscape for pre-colonial use and habitation as well as the survival of archaeological sites into modern times. Among the most important are (coastal) erosion, dune development and the availability of fresh water (De Waal 2006: 63). Paleoclimate studies exist but they often do not have the required temporal resolution (Cooper 2013: 50). Detailed Holocene climate curves exist for Barbados, but very little information is available for the period, which is relevant for pre-colonial and more recent occupation. An important exception is the research by Mangini *et al.* (2007: 1332), who recorded that a stalagmite from Harrison's Cave in Barbados demonstrated increased rainfall intensity between 6.7 and 3 ka BP.

Cooper (2013: 53) sketched a regional picture beginning with:

*'a warmer wetter early to mid-Holocene 7000-4000 cal B.P. before a drier mid- to late Holocene 3500-2300 cal B.P., and then a wetter 2300-1150 cal B.P., with later evidence for the impacts of a drier Medieval Warm Period A.D. 950-1300 and a wetter A.D. 1380-Colonial Period associated later with the Little Ice Age'.*

He stresses, however, that local conditions need to be studied in order to be able to identify the impact of climate changes on occurrences of fresh water and potential food resources. It is essential to know how much wetter or drier conditions were, what deviations from estimated means were, and how often and what was the duration of eventual extreme periods of wetness or draught. For Barbados, this has not yet been done.

## Hydrography

The availability of fresh water in Barbados looks to be problematic at first sight as few water streams are visible at the surface. Burchmore Harrison and Jukes-Browne (1890: 42) mention some small rivulets fed by permanent springs in valleys in the Scotland District. Gullies only carry water after heavy rains. Rainwater, however, is easily absorbed by the porous coral rock and caught in fresh water lenses, or aquifers, situated between chalky layers in the subsurface, with the underlying oceanic rock preventing further absorption (Machel 1999: 25). This water is transported as groundwater towards the coast through underground channels, some of which reach 5 m (16 feet) in diameter (Humphrey 1997:

393). Close to the coast, the fresh water flows towards an opposing flow of salty seawater (Machel 1999: 25). Fresh water floats on the saline groundwater as a result of its lower density. This phenomenon is also known from other relatively flat limestone islands, for example La Désirade and the islands of Petite Terre (Guadeloupe) (De Waal 2006: 63). Not all rainwater ends up absorbed and transported. In the driest parts of Barbados the evaporation rate does not allow underground storage of rainwater. The central and northern upland areas, the wettest areas in the island, feed this system.

Fresh water can be collected at the beach by digging pits (Drewett 2007: 1). Some of these pits provide water throughout the year. From colonial times until today, wells have been dug all over the island to collect drinking water from an aquifer. In pre-colonial times, sub-surface fresh water lenses were also exploited through digging. Pot-lined wells, consisting of stacks of bottomless vessels used to consolidate the walls of the pits, have been discovered in sandy beaches at Maxwell (Harris and Hinds 1995), Goddards, Spring Garden and South Point (Drewett 2007: 50), and no less than 53 were found at Heywoods (Hinds *et al.* 1997; Drewett 2007: 50). Pot-stacks are known from other islands, for example Mustique, Carriacou and St. Vincent (Hinds and Harris 1995) and Guadeloupe (Hofman and Hoogland 2015). At Heywoods, Barbados, wood-lined wells have been recovered, together with calabash to collect the water (Drewett 2000; 2007).

Natural springs are present in locations where erosion has reached the groundwater table (Machel 1999: 24). A well-known example is Three Houses spring. This spring has provided water for consumption and for irrigation of agricultural fields from colonial times until today. It was also used in pre-colonial times (De Waal in prep. b.; De Waal and Lesparre 2018). Another fresh water spring was discovered during excavations on the Nidhe Israel Synagogue grounds in Bridgetown in 2008. The investigations revealed the *Mikveh*, the traditional ritual bath, of the original 1654 synagogue. The spring that had once determined its location had become filled in with debris and disappeared. Once excavated, water turned out to be still flowing and is providing the, now exposed, ritual bath with fresh water. Indications for pre-colonial use of this fresh water source have also been found (De Waal in prep. c.).

Burchmore Harrison and Jukes-Browne (1890: 42-43) recorded other fresh water streams in Hometown, Speightstown, Six Men's Bay, north of Bridgetown, including Indian River, and streams near Brighton and Spring Garden, the latter forming sizable ponds. Many other ponds were reported to be in sinkholes, where water can also be collected. Amerindians may have collected rainwater in (ceramic) vessels, or in conch shells (cf. Hofman and Hoogland 2015: 110-111), but this will have been limited (if occurring at all) as a result of the limitations to the quality and quantity of fresh water that can be collected and stored this way.

## **Pedology and agricultural potential**

A detailed overview of soils in Barbados was presented by Vernon and Carroll (1966). Most of the soils developed in weathering products of the predominant carbonate rock and in volcanic ash that fell on Barbados as result of volcanic eruptions on nearby islands (Vernon and Carroll 1966: 15). These soils include Saharan dust and possibly

a minor component of lower Mississippi River Valley loess as well (Muhs *et al.* 2007). Vernon and Carroll (1966: 13; 16-27) distinguished nine groups of:

*'soils developed from the same parent material within one climatic area and representing the range of profile types produced as a result of differences in drainage'*

and a tenth category consisting of a cluster of soils in the Scotland District, considered 'immature' due to erosion and unstable topography (figure 1.3).

These soils can be divided in five general categories:

- I. Well-drained clays overlying calcitized coral limestone (Upland Plateau), with few stones, slight erosion hazard, and compaction in deeper subsoils:
  1. Red-Brown Association (more mature soils, > 200 m).
  2. Yellow-Brown Association (less mature soils, < 200 m).
- II. Moderately well drained clays overlying coral limestone, with some stones, slight erosion hazard, and poorly structured subsoils:
  3. Grey-Brown Association (more mature soils, < 120 m).
  4. Black Association (less mature soils, in most of the St. Lucy plain and the Christ Church Ridge, and some of the lowlands around Bridgetown).
- III. Clay soils developed from lagoonal or other clay deposits:
  5. St. John's Valley Association (deep clay with mottled red and grey subsoil, imperfect or poor draining, no stones, moderate erosion hazard, and gleyed sub-surface horizons).
  6. St. George's Valley Association (mixed, poorly drained heavy clays, with very few stones, almost no erosion hazard, gleyed subsurface horizons).
  7. St. Philip Plain Association (clays at low altitudes in St. Philip and St. Lucy, with many shells, imperfect drainage, few stones, slight erosion hazard and poorly structured subsoil).
- IV. Well-drained soils developed from predominantly sandy deposits, with few stones, and moderate to high erosion hazard:
  8. Red Sand Association.
- V. Shallow, immature soils of dry areas with strong salty winds preventing any vegetation:
  9. Coastal Association (poor soils at St. Lucy and St. Philip windward coasts).

Large stretches of Barbados are suitable for cultivation, apart from (dry) areas with very steep slopes with a shallow or stony soil, which occur in almost all categories. Other areas have some limitations related to the presence of excess water or shallow or stony soils but are still suitable for cultivation (Vernon and Carroll 1966: table 5, 36-37). Large parts of the country are used for agricultural production. Since the beginning of colonial times large-scale cultivation of (most notably) sugar took place (Dunning *et al.* 2018: 191-192), next to small-scale, household, horticulture. Extensive slash-and-burn horticulture, common to agricultural Amerindian societies, must have been possible almost everywhere in the island, except for dunes in the Scotland District and sandy and rocky coastline shores. Soils may even have been better suited for horticul-

ture in pre-colonial times as they were covered by denser vegetation and had not yet been exhausted by centuries of intensive agriculture (cf. Dunning *et al.* 2018: 192).

## Vegetation and fauna

In 2011, only 19.4% of Barbados was covered in forest, with 34.9% agricultural land and 29.7% arable land. Large stretches of land were cleared of vegetation from early colonial times onwards to allow cultivation. Current natural vegetation generally consists of coastal vegetation, including sea-grape (*Coccoloba uvifera*), mancenilla trees (*Hippomane mancinella*) and dense and low shrub, and dense and low succulent evergreen shrub-land inland. There are a few exceptions to this seemingly sparse vegetation. Banks of fresh water streams generally support trees, and mangrove (*Rhizophora mangle* and *Laguncularia racemosa*), although rare in Barbados (UN Environment 2017), can be found in Graeme Hall (figure 1.4), Inch Marlowe and Chancery Lane swamps in the south. Chancery Lane wetland was largely destroyed in the past century. Recent palaeoenvironmental investigations at Graeme Hall have indicated that during the past 1400 years the landscape changed from an open bay to a closed wetland setting, possibly as result of rapid displacement of marine sediments to land, possibly caused by a hurricane or a tsunami (Dunning *et al.* 2018: 193, 197). Other wetland areas include Long Pond and Green Pond, in the northeast, and the river mouth in Holetown, in the west. According to Dunning *et al.* (2018: 189, 193), there used to be many mangrove wetlands in coastal areas in Barbados, the most important of which may have been at the location of today's harbor in Bridgetown.

Turner Hall Woods, today a natural reserve with a wide variety of large trees and lush vegetation, gives an impression of how wooded Barbados may have looked in pre-colonial times. Most impressive, however, is the vegetation in the gullies. The relatively humid gully conditions support lush vegetation, including a wide variety of large (fruit-bearing) trees. Welchman Hall Gully has been turned into a reserve with native plants such as Bearded fig tree (*Ficus citrifolia*), Fiddle wood (*Citharexylum spinosum*), Bay tree (*Pimenta racemosa*), Macaw palm (*Aiphanes minima*), Fustic (*Maclura tinctoria*), Mammey apple (*Mammea americana*), Pop-a-gun Tree (*Cecropia peltata*), Bitter bark tree (*Picrasma excelsa*), Guyana chestnut (*Pachira aquatica*) and a large variety of ferns and lush groundcover (personal observation 2015). Several of the trees have edible fruits, provide timber or have medicinal properties.

Vegetation in pre-colonial Barbados was more lush and abundant than today. Based on historical sources and botanical studies of still existing forest patches, Dunning *et al.* (2018: 188-189) present a late pre-colonial landscape characterized by a two-story canopy structure, with a relatively open distribution of 30-40 m (100-120 feet) high deciduous species and palm trees and a denser distribution of 20-25 m (55-70 feet) high and greatly varied tree species, with smaller shrub and trees in the relatively wet and sheltered parts of the island. The rocky and sandy coastal areas were characterized by xerophytic vegetation, similar to today's situation. Amerindian inhabitants cleared areas to establish villages, create garden plots and harvest trees for the construction of houses and canoes. At Graeme Hall, Dunning *et al.* (2018: 200) found evidence for an anthropogenic landscape dating back to well before ca. AD 800.



Figure 1.4. Graeme Hall, November 2009 (Maaïke de Waal).

Colonial settlers continued the process of deforestation to allow larger-scale habitation and cultivation, a process that still continues today. The introduction of grazing domesticated animals has prevented parts of the island from reverting to forest. Plant remains identified in archaeological contexts reflect typical coastal fringe and evergreen and semi-evergreen seasonal forest vegetation (Newsom 2000: 164). At Heywoods, false mastic (*Mastichodendron* sp.) had been used for house posts and false mastic, lignum vitae (*Gaiac*) and calabash remains (*Crescentia cujete*) were identified in wood-lined wells (Drewett 2007: 49; Drewett and Bennell 2000: 47; Newsom 2000: 163; Rogers 2000: 160). Wood from the soapberry family (Sapindaceae), wild genip (*Exothea* sp.), croton (*Croton* sp.), bustic (*Dipholis* sp.) and possible sea grape had been used for fuel at Hillcrest (Newsom 2000: 163). Carbonized plant remains at Heywoods pointed to the presence of:

*'Guiana plum or whitewood, manchineel, [...] and palm family and bignonia, bombax ormallow, mahogany, and myrtle families'* (Newsom 2000: 162)

and seed fragments were found to represent edible fruits of hog plum (*Spondias* sp.), sweetsop, soursop or custard apple (*Annona* sp.), Palm fruit (*Acrocomia aculeata*), and of West Indian Locust (*Hymenaea courbaril*); (Rogers 2000: 160-161).

Mangroves and wetlands are rare in Barbados, yet they are important as they function as nurseries for crab, fish and shellfish. Similarly to salinas, birds come here to collect food, to rest or to nest (UN Environment 2017). Barbados has 214 bird species, of which 147 are rare or accidental and only one, the Barbados bull-

finch (*Loxigilla barbadensis*), is endemic (Buckley *et al.* 2009: 2; UN Environment 2017). Many birds come to Barbados as migratory or vagrant birds, collecting reserves in the swamps in order to migrate further south or nesting. Barbados birds include shorebirds, wading birds, waterfowl and sea birds and one bird of prey, the osprey (*Pandion haliaetus*); (UN Environment 2017). Several endemic bird species, including a trembler (*Cinlocerthia* sp.) and two otherwise unidentified parrot species have become extinct (cf. Buckley *et al.* 2009: 2).

Marine resource rich zones include sea grass beds, coral reefs, tide pools and open water. Sea grass beds are attractive habitats for juvenile fish, Conch (*Lobatus* sp.) and helmet shell (*Cassis* sp.), both not abundant around Barbados, and they provide food for fish, sea urchins, green turtles and spiny lobsters. Large sea grass beds can be found in calm bays on the south-west coast and in protected bays in the east such as Consett Bay, Skeetes Bay and Martins Bay (UN Environment 2017). Coral reefs, acting as breeding grounds and nurseries for many fish species and lobster, can be found to the west and south of Barbados. They provide a high variety and abundance of fish, as well as a wide variety of coral species. Tide pools at the east and south coasts act as nurseries for juvenile fish and octopus, and they also provide edible sea moss (*Chondrus crispus*). Fish and birds come there to feed (UN Environment 2017). The islands rocky shores provide areas to easily and abundantly collect shellfish and lobster.

Marine mammals, including whales and dolphins, are rare around Barbados (UN Environment 2017), but the open waters abound in fish and hawksbill (*Eretmochelys imbricata*) and leatherback sea turtles (*Dermochelys coriacea*). Turtles nest on the sandy beaches on the south-west and west coasts, yearly constructing about 2000 nests between June and September. Nesting situations have seriously worsened when compared to pre-colonial times as result of coastal development and sea level rise (Fish *et al.* 2008: 331-332). Incidental landings of non-endemic crocodiles have been recorded (Barton 1979[1953]: 9).

Faunal remains collected from Silver Sands, Heywoods, Chancery Lane and Hillcrest indicate the presence of rice rat (*Oryzomyine*, now extinct), bat (*Brachyphylla cavernarum*), sperm whale (*Physeter catodon*) and domestic dog (*Canis familiaris*). Reptiles are represented by green sea turtle (*Chelonia mydas*), anole (*Anolis* spp.), snake (indetermined) and frog or toad (Anuran). The faunal record further includes shark (*Ginglymostoma cirratum*, *Carcharhinus* sp. and *Galeocerdo cuvier*), ray (indetermined), sea urchin (indetermined), crab (Coenobitidae, Paguridae, Calappidae, Xanthidae, Gecarcinidae) and spiny lobster (*Panulirus* sp.). The small variety of birds, including Audubon's shearwater (*Puffinus lherminieri*), (tree) duck (*Aythya collaris* and *Dendrocygna* sp.), purple gallinule (*Porphyryula martinicus*), great black-backed gull (*Larus marinus*), pigeon (Columbidae) and mockingbird (*Mimus* sp.), contrasts with the large variety of fish, mainly from reefs and pelagic waters (Wing 1991: 136-138; 2000: 149). Different from other West Indian faunal assemblages was the absence of agouti (*Dasyprocta leporina*) and opossum (*Didelphis marsupialis*), introduced to other West Indian islands by Amerindians, and the abundance of flyingfish (*Hirundichthys* sp.), suggesting a preference that still exists today (Wing 1991: 141-142).



## **Present-day settlement and exploitation of natural resources in Barbados**

Today, ca. 285,800 people inhabit Barbados (Worldometers 2019). Given the island's relatively small surface area, this represents dense occupation. Settlement today mainly concentrates in the western and southern parts of the island. Adding a similar yearly number of tourists results in a huge pressure on natural resources and coastal areas, particularly in the west and south, and these areas have been transformed for tourist accommodation and facilities, paying little regard to the preservation of natural habitats and areas of archaeological sensitivity, none of which are protected by existing legislation.

Many houses were built not only to accommodate Barbados' own inhabitants but also expatriate family members abroad who own houses to return to during holidays, or as retirement provision. The island has a dense network of paved roads, and it used to have a railway, which connected Bridgetown and Belleplaine between 1881 and 1937 (Watson Yates 1998). This feature is being successfully developed into a heritage trail (Inniss this volume chapter 19). Exploitation of natural resources takes place at the location of over 280 drilled oil wells and oil exploitation installations in the Woodbourne area (Donovan and Harper 2005: 27). In addition, limestone, sand, clay and shale are being mined at large-scale. Approximately 2.5 million tonnes (2.7 million tons) of limestone are being mined yearly from 16 registered quarries, all easily identified from aerial photos by their white spoil heaps. Mining of sand, clay and shale occurs in the Scotland District, removing 250-300,000 tonnes (270-330,000 tons) of sand from the Walkers dunes, north-west of Long Pond, yearly and another 100,000 tonnes (110,000 tons) of shale are being mined from close-by Greenland yearly. Clays are collected and used by present-day potters in Barbados but also mined to supply for shingles, tiles and bricks (Barbados Energy Division 2017). Finally, extensive areas in Barbados are being used for sugar cultivation, and have been so for decades, or even centuries.

## **Conclusions**

The foregoing outline of Barbados' natural setting has provided a background to understanding conditions for pre-colonial settlement and exploitation of natural resources, site preservation and possibilities for archaeological fieldwork. It may also help to predict or evaluate pre-colonial site distributions (cf. De Waal this volume chapter 4). Barbados clearly offered many attractive conditions for pre-colonial Amerindian settlement. Earthquakes occur regularly but the island has no volcano and is often spared the passing of hurricanes. In addition, it has many flat areas suitable for habitation and horticulture. Although there probably was a depauperate terrestrial fauna, there was an abundant avifauna and plentiful marine resources to hunt or collect. Birds, crab and fish could be easily caught in mangroves and wetland areas. The gullies, omnipresent in Barbados, offered many fruits and nuts as well as trees suitable for the manufacture of houses and canoes. The collection of fresh water, although a considerable effort may have been required, was probably not a limiting factor.

The island has many sheltered bays where canoes can land, with fringing reefs providing excellent food collecting locations. Lithic raw materials, needed for the

manufacture of stone tools and implements, were limited to relatively soft materials of which only the sandstones may have been attractive for the manufacture of grinding stones. For more solid lithics, pre-colonial inhabitants of the island depended on sources elsewhere in the region, although fragmentary chert occurrences seem to occur in Barbados. Several tools could easily be made from Queen conch as well, and that material was abundantly available. Clay, a much-needed resource for pottery, is plentifully present as well, as is tar, which may have been used as an adhesive, for example, in hafting stone tools or waterproofing canoes.

An interesting feature in the Barbados landscape is the presence of caves that were available for shelter but also for special, ceremonial, activities. These can be found virtually all over the island. The same is true for permanent or temporary settlements. Although flat coastal areas, close to fresh water sources and bays with coral reefs, provided good conditions for settlement, many inland areas offered attractive location features as well. Barbados' elevated terraces provide large stretches of flat land with potential look-out locations and natural resources such as fresh water, fertile soils and forested areas that attract terrestrial fauna and birds. From many inland locations the coast is within walking distance. Settlers further inland may have used special activity sites for collecting specific natural resources. Although archaeological research should focus on investigating if archaeological sites are indeed located in these favorable inland locations, it is equally (or maybe even more) important to find out whether people settled in unexpected places, as this may depend on specific social, political, economic or ceremonial choices yet unknown (De Waal 2006: 65).

As for possibilities for archaeological fieldwork, the local relief allows systematic surveys and excavations, but the surface cover, in many areas consisting of sugar cane, slows down surveys as the surface must be cleared during field walking. These areas are regularly ploughed, however, creating favorable ground visibility. Coastal areas generally have less vegetation to hide archaeological materials from view or hinder fieldwalking, but they may have dunes. Dune areas should be investigated through auger testing (De Waal 2006). A fieldwork restriction in northern and eastern coastal areas is that many areas have hardly any sediment left to excavate (De Waal in prep. a). Excavating inland locations, on the other hand, may be a time-consuming enterprise as result of extreme thickness and compactness of local clays.

Although the northern and eastern coasts are easily accessible for investigation, these areas have suffered from coastal erosion: complete sites may have disappeared. As for the western coast, it may be hypothesized as a result of sea level rise that sites earlier than 300 BC, including possible Archaic sites and sites dating from the early phase of the Early Ceramic Age, may be missing from the site record. Although inland sites are less prone to erosion, they may be in agricultural areas that have been in use for centuries, resulting in horizontal and vertical displacement of archaeological materials. Sugar cultivation in particular renders the surface invisible, creating a 100% cover for (eventual) archaeological remains on the surface. In addition, ploughing for sugar cultivation is turning over the uppermost 50 to 75 cm (19-29 inches) of soil (personal observation 2009).

Other areas are known for specific natural hazards, such as landslides, which negatively influence site survival. Human action, including development for housing, infrastructure and tourism, and large-scale exploitation of oil, limestone, sand, clay and shale is known to have a large impact on site preservation. Fortunately, these impact locations

are known and leave large (mostly inland) areas potentially worth investigating for the presence of archaeological sites. Another factor affecting preservation of pre-colonial sites is site reuse into the colonial period. For example, areas close to fresh water sources are likely to be used throughout pre-colonial, colonial and contemporary times, as witnessed at Three Houses and at the location of the Bridgetown synagogue (De Waal in prep. b-c; De Waal and Lesparre 2018). In addition, Kambesis and Machel (2013: 227, 240) identified present-day use of caves including excavation of marl, storage, tourism and even dating, as well as earlier use as hideouts for escaped enslaved people, which may have perturbed older archaeological remains in caves. Last but not least, archaeological sites can be prone to looting and vandalism as site locations are not yet being effectively protected (cf. De Waal this volume chapter 4). The present volume will hopefully help to draw attention to the need for more efficient site protection and to an increased knowledge and understanding of the pre-colonial past of Barbados.

### **Acknowledgements**

I am very grateful to Dr Quetta Kaye for kindly correcting the original English text.

### **References**

- Bailey, W., J. Sumrall and H. Machel.  
2015 Three types of Barbados beachrocks. Unpublished paper presented at the Geological Society of America, South-Central Section, 49th Annual Meeting (19-20 March 2015).
- Barbados Energy Division.  
2017 Resource available online at: <http://www.energy.gov.bb/web/quarrying> (accessed February 2 2017).
- Barton, G.  
1979 *The Prehistory of Barbados*. The Layne Company, Halifax [reprint from first edition 1953].
- Buckley, P., E. Massiah, M. Hutt, F. Buckley and H. Hutt.  
2009 *The Birds of Barbados*. BOU Checklist Series Volume 24, British Ornithologists' Union, Tring.
- Burchmore Harrison, J. and A. Jukes-Browne.  
1890 *The Geology of Barbados*. Published by Authority of the Barbadian Legislature, Bridgetown.
- Cooper, J.  
2013 The climatic context for pre-Columbian archaeology in the Caribbean. In *The Oxford Handbook of Caribbean Archaeology*, edited by W. Keegan, C. Hofman and R. Rodríguez Ramos, pp. 47-58. Oxford University Press, Oxford.
- Cruden, D., H. Machel, J. Knox and R. Goddard.  
2014 The 'Boscobel Landslip' of October 1st, 1901 – the largest historic landslide in Barbados, West Indies. *Landslides* 11: 673-684.

De Waal, M.

2006 Pre-Columbian Social Organisation and Interaction Interpreted through the Study of Settlement Patterns. An archaeological case-study of the Pointe des Châteaux, La Désirade and Les Îles de la Petite Terre micro-region, Guadeloupe. F.W.I. PhD dissertation, Leiden University. Digital Printing Partners Utrecht B.V., Houten.

In prep. a. Little Bay, St. Lucy, Boscobelle Bay, St. Andrew, and Skeetes Bay Plateau, St. Philip, Barbados. Pre-colonial settlement in eroding coastal landscapes.

In prep. b. Pre-colonial settlement at Three Houses, St. Philip, Barbados.

In prep. c. Pre-colonial special activity use of the Synagogue site (IBM4) location in Bridgetown, Barbados. A ceramic analysis.

De Waal, M. and J. Lesparre.

2018 Investigating a prehistoric Amerindian village in Three Houses, Barbados (2009, 2015). Information panel for the permanent archaeological exhibition at Golden Grove, Barbados.

Donovan, S. and D. Harper.

2005 The geology of Barbados: a field guide. *Caribbean Journal of Earth Science* 38: 21-33.

Drewett, P.

1995 Heywoods: reconstructing a preceramic and late landscape on Barbados. In *Actas del XV Congreso Internacional de Arqueología de Caribe Proceedings of the Fifteenth International Congress for Caribbean Archaeology*, edited by R. Alegria and M. Rodriguez, pp. 273-282. Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan, Puerto Rico.

2000 *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*. Archetype Publications, London.

2004 Post-Saladoid society on Barbados. In *Late Ceramic Age Societies in the Eastern Caribbean*, edited by A. Delpuech and C. Hofman, pp. 215-230. BAR international Series 1273.

2007 *Above Sweet Waters. Cultural and Natural Change at Port St. Charles, Barbados, ca. 1750 BC – AD 1850*. Archetype Publications, London.

Drewett, P. and M. Bennell.

2000 Settlement archaeology on Barbados II. The Port St Charles (Heywoods) Archaeological Rescue Project. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 27-50. Archetype Publications, London.

Dunning, N., J. Jones, D. Pearsall and P. Siegel.

2018 Barbados. In *Island Historical Ecology. Socionatural landscapes of the Eastern and Southern Caribbean*, edited by P. Siegel, pp. 182-202. Berghahn Books, New York.

Fish, M., I. Côté, J. Horrocks, B. Mulligan, A. Watkinson and A. Jones.

2008 Construction setback regulations and sea-level rise: mitigating sea turtle nesting beach loss. *Ocean & Coastal Management* 51: 330-341.

- Harris, M. and R. Hinds.  
 1995 Pottery from Maxwell, Barbados. In *Actas del XV Congreso Internacional de Arqueología de Caribel/Proceedings of the Fifteenth International Congress for Caribbean Archaeology*, edited by R. Alegria and M. Rodriguez, pp. 511-522. Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan, Puerto Rico.
- Hinds, R., M. Bennell and M. Harris.  
 1997 Excavations at Heywoods. In *Proceedings of the Seventeenth International Congress for Caribbean Archaeology*, edited by J. Winter, pp. 122-135. Molloy College Rockville Center, New York.
- Hinds, R. and M. Harris.  
 1995 Pottery from Mustique. In *Actas del XV Congreso Internacional de Arqueología de Caribel/Proceedings of the Fifteenth International Congress for Caribbean Archaeology*, edited by R. Alegria and M. Rodriguez, pp. 459-469. Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan, Puerto Rico.
- Hofman C. and M. Hoogland.  
 2015 Beautiful tropical islands in the Caribbean Sea. Human responses to floods and droughts and the indigenous archaeological heritage of the Caribbean. In *Water & Heritage. Material, conceptual and spiritual connections*, edited by W. Willems and H. Van Schaik, pp. 99-119. Sidestone Press, Leiden.
- Humphrey, J.  
 1997 Geology and hydrogeology of Barbados. In *Geology and Hydrogeology of Carbonate Islands, Developments in Sedimentology 54*, edited by H. Vacher and T. Quinn, pp. 381-406. Amsterdam, Elsevier.
- Kambesis, P. and H. Machel.  
 2013 Caves and karst of Barbados. In *Coastal Karst Landforms*, edited by M. Lace and J. Mylroie, pp. 227-244. Coastal Research Library, vol. 5, Springer, Dordrecht.
- Machel, H.  
 1999 *Geology of Barbados. A brief account of the Island's origin and its major Geological features*. Barbados Museum and Historical Society, Bridgetown.
- Mangini, A., P. Blumbach, P. Verdes, C. Spötl, D. Scholz, H. Machel and S. Mahon.  
 2007 Combined records from a stalagmite from Barbados and from late sediments in Haiti reveal variable seasonality in the Caribbean between 6.7 and 3 ka BP. *Quaternary Science Reviews* 26: 1332-1343.
- Muhs, D., J. Budahn, J. Prospero and S. Carrey.  
 2007 Geochemical evidence for African dust inputs to soils of western Atlantic Islands: Barbados, the Bahamas, and Florida. *Journal of Geophysical Research* 112:F02009, doi:10.1029/2005JF000445. Available online at: <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005JF000445> (accessed 16th February 2019).

Newsom, L.

2000 Archaeological wood remains from the Heywoods (Port St Charles) and Hillcrest Sites, Barbados. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 161-165. Archetype Publications, London.

Nurse, L., K. Atherly and L. Brewster.

1995 The impact of thermal effluent discharge on the Barbados Southern West Coast. In *Environment and Development in the Caribbean: Geographical Perspectives*, edited by D. Barker and D. McGregor, pp. 21-34. University of the West Indies Press, Jamaica.

Rogers, G.

2000 Plant remains from the Port St Charles (Heywoods) site, Barbados. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 160-161. Archetype Publications, London.

Scheffers, S. and D. Kelletat.

2006 Recent advances in paleo-Tsunami field research in the Intra-Americas Sea (Barbados, St. Martin, and Anguilla). In *Caribbean Tsunami Hazard: Proceedings of the NSF Caribbean Tsunami Workshop*, edited by A. Mercado-Irizarri and P. Liu, pp. 178-202, World Scientific Press, Puerto Rico.

Tout, D.

1968 The climate of Barbados. *Climatological Bulletin* 3: 1-18.

UN Environment.

2017 Online resource available at: [http://cep.unep.org/racrempeitc/activities/activities-2010\\_2011/esi-mapping-in-barbados](http://cep.unep.org/racrempeitc/activities/activities-2010_2011/esi-mapping-in-barbados) (accessed 7 February 2017).

Vernon, K. and D. Carroll.

1966 *Soil and Land-Use Surveys No. 18, Barbados*. The Imperial College of Tropical Agriculture, Trinidad/W.I. Knapp, Drewett & Sons Ltd, Kingston upon Thames.

Watson Yates, A.

1998 *Bygone Barbados*. Black Bird Studios, Barbados.

Wing, E.

1991 Economy and subsistence I – faunal remains. In *Prehistoric Barbados*, edited by P. Drewett, pp. 134-152. Archetype Publications, London.

2000 Economy and subsistence I. animal Remains from Sites on Barbados and Tortola. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 147-153, Archetype Publications, London.

Worldometers.

2019 Resource available online at: <http://www.worldometers.info/world-population/barbados-population/> (accessed 17 February 2019).

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# Archaic Age Barbados and the Works of Peter Drewett

*Scott M. Fitzpatrick & Maaïke S. de Waal*

## Abstract

In the early 1990s, Peter Drewett began investigating the pre-colonial site of Heywoods, situated along the northwestern coast of Barbados. Initial survey and excavation identified this site as one of the largest on the island, with later development of the area as part of the Port St. Charles marina, leading to a series of salvage excavations over more than a decade. Archaeological investigations revealed an extensive and rich Late Ceramic Age assemblage, including preserved wooden posts, human burials, food remains, and thousands of artifacts. Of perhaps equal significance was the Archaic Age (preceramic) portion of the site, which although comparatively sparse, included food refuse and numerous chipped shell adzes, one of which was radiocarbon dated to ca. 1630 BC. At the time, this provided the only evidence for a first-second millennium BC settlement in the southern Lesser Antilles and was later bolstered by a suite of additional dates that spanned between ca. 3000-2000 Cal BC. In this chapter we describe the history and work of Peter Drewett at Heywoods and what this has meant for our understanding of the Archaic Age in both Barbadian and Caribbean archaeology.

**Keywords:** *Archaic age, preceramic, Peter Drewett, Heywoods.*

## Introduction

Peter Drewett's effort to comprehensively survey and record pre-colonial sites in Barbados led him and his research teams across much of the island's landscape. Over the course of more than two decades of fieldwork, dozens of archaeological sites were identified and it became clear that Barbados had a rich but highly threatened pre-historic cultural heritage that extended back thousands of years. Numerous Ceramic Age village sites as well as many other activity areas were found, most of which were concentrated along the island's coastline (Drewett 1991; 2000). One of the more interesting discoveries was the site of Heywoods located on the north-western corner of

the island near Speightstown. Apart from being identified as one of the largest Late Ceramic Age sites on Barbados, it also had a purported Archaic component comprising food remains and chipped shell adzes, for which Drewett had obtained a single radiocarbon age of 1630 BC (Drewett *et al.* 1993). Of significance was that at the time, no unequivocal Archaic Age sites had yet been documented in the southern Lesser Antilles. Given that only a single  $^{14}\text{C}$  date was used to establish the earliest component of Heywoods, Fitzpatrick (2011) dated several other specimens, including an adze recovered by Drewett, which not only supported the Archaic age of the site, but extended it back in time even further to ca. 3000 Cal BC. In this chapter, we bolster the chronology for the Archaic Age on Barbados by reporting three additional dates (n=6 total) from Heywoods, review what is known about the site and its importance to Barbadian prehistory, and how the Archaic component has provided us with a unique, but anomalous perspective on ancient Caribbean settlement.

## Research Background

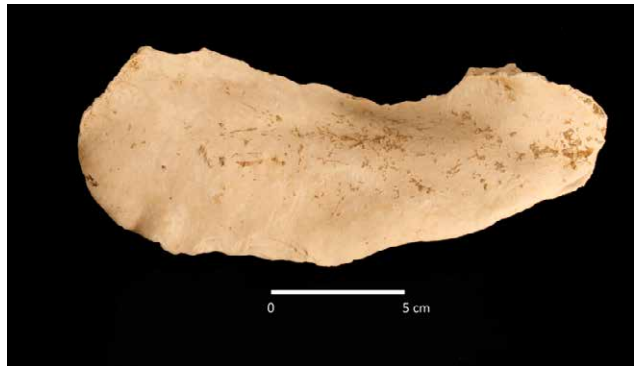
The pre-colonial site of Heywoods has been long known to archaeology enthusiasts in Barbados. The Ceramic Age component had been mentioned by Barton (1979 [1953]), and pottery and shell artifacts were collected for years from the site's surface. When it became clear in the early 1980s that the area would be developed, Peter Drewett was asked by officials of the Barbados Museum and Historical Society to investigate the site prior to its unavoidable destruction (Drewett 1991; 2007). At the time it was unclear how development might affect the site, though the extent of destruction was not entirely anticipated. Investigations focused on establishing the boundaries and arrangement of the Ceramic Age site, which revealed house structures, burials, pot-lined and wood-lined wells, deposits of food remains, human and dog burials, and an extensive assemblage of artifacts, all belonging to a post-AD 200 settlement where different occupation phases had shifted across the area. Excavations, both salvage and controlled, took place in 1985-1986, 1990-1991, 1995, 1996, 1997 and 1998-1999 (Drewett 1991; 2007).

The 1990-1991 field season revealed a surprising result: two *Lobatus* (formally *Strombus*) *gigas* shell adzes, collected from a compact medium-grey sandy clay layer 140 cm below the surface in test unit 39. A radiocarbon date of  $3980 \pm 100$  BP (I-16840) for one of the adzes indicated that this was likely an Archaic Age assemblage, which Drewett (2006: 204; 2007: 3-4, 9) estimated to be between 1750-1510 BC or around 1630 BC (Figure 2.1). Excavation of this test pit had stopped at 150 cm below the surface as ground water hindered further investigation (Drewett 2007: 9). Apart from the adzes, the layer also yielded large *Lobatus* shells and other faunal remains. Drewett labeled this find to be preceramic, consistent with standard naming conventions of the time. Today, because a number of Archaic Age sites in the Caribbean have occasionally been reported to contain ceramics, the term preceramic (or aceramic) has been deemed inaccurate and instead is now replaced with the current term 'Archaic' (cf. Keegan and Hofman 2017: 24).

The significance of this assemblage was not to be understated, for it pushed back the date for human presence in Barbados by nearly 2000 years. While other islands in the Lesser Antilles had documented Archaic Age sites, including Trinidad (Rouse 1992),



Figure 2.1. Lobatus [Strombus] gigas shell adze recovered from Context 7 in Trench 39 at Heywoods and dated to  $4230 \pm 50$  (2530 – 2220 Cal BC) (Beta-297521) (Scott Fitzpatrick).



Guadeloupe (Clerc 1976), Nevis (Wilson 1989), St. Kitts (Armstrong 1980), Barbuda (Watters *et al.* 1992), Saba (Roobol and Smith 1980: 169), Anguilla (Haviser 1991), Martinique (Allaire and Mattioni 1983), and St. Vincent (Hackenberger 1991)—with the latter two largely being discounted due to poor context or other issues – no equivocal sites dating to the Archaic Age were known from Barbados or any other island in the Lesser Antilles south of Guadeloupe. In fact, most Archaic Age sites (more than 50) had been recorded on Antigua (Rouse 1992; Davis 2000). This is not entirely surprising given the island’s unique and abundant flint sources, which were traded heavily in the northern Caribbean. Because Barbados is situated much further east than other islands in the Antilles, it was once thought that earlier settlement (pre-2500 BP) would likely not be found (cf. Bright 2011: 97; Drewett 2004: 215).

### The 1995 Project

Despite emerging evidence that Heywoods was critical for understanding a much broader sequence of prehistoric occupation on Barbados than once believed, it became clear in the early 1990s that the site would not be spared destruction due to the impending development of the Port St. Charles marina. While working at several other sites on the island in 1995, Drewett arranged for a portion of his existing crew, including Scott M. Fitzpatrick, Kevin Farmer, Dan Drewett, and Ben Jackson, to conduct salvage excavations at Heywoods. The 1995 research conditions in the field were challenging due to an accelerated time frame and persistent heavy rains, which complicated excavation of the heavy marsh clay and recovery of archaeological remains. Given these issues, the methodology involved having a backhoe cut two  $1 \times 50$  m trenches and two  $30 \times 30$  m units to recover and map as much material possible over a period of a month (Figures 2.2-2.5). The units opened up Ceramic Age layers and then deepened to the level where the Archaic Age site was expected (Drewett 2007: 3, 10; Drewett and Bennell 2000: 27-29). Later fieldwork at Heywoods focused exclusively on the Ceramic Age site components.

During the 1995 rescue project, another 10 shell adzes were collected from the Archaic Age context, but no features or other evidence for material dating to this time period were discovered. After excavation of the area where Archaic Age material had been concentrated, more than 220 shell adzes were collected by archaeology enthusiasts (Drewett 2007: 12). It was thought that these were also probably Archaic Age, but

the lack of good provenience prevented clear associations from being made. In addition to these finds, 86 animal bone fragments were collected, with a minimum number of individuals (MNI) of 28 from 22 taxa. Although the sample was not robust, they did include finfish from coral reef, inshore, and pelagic environments and some terrestrial animals such as the native rice rat (Wing 2000: 148-153).

### **Additional chronometric evidence**

In most cases, a single radiocarbon date is not sufficient to establish a secure age for a given context, which has been problematic in the Caribbean generally when attempting to develop chronologies (Fitzpatrick 2006). Drewett was among the first to acknowledge that one date from a shell sample at Heywoods was inadequate (cf. Drewett 2007: 83). He also reported that several pottery sherds were found in the presumed Archaic Age layer but suggested that this was probably the result of natural post-depositional processes (Drewett 2007: 9).

Despite these issues, there was remarkably little discussion about the discovery. In most reports it is only mentioned that an Archaic Age component was expected at Heywoods on the basis of the one dated sample, and that further research would be required to verify its antiquity (*e.g.* Callaghan 2010: 141).

Because of the potential significance of the Heywoods date, Fitzpatrick (2011) later dated two other conch shell samples recovered by Drewett from the same area. These included an adze from context 7 (sample Beta-297521) and a juvenile specimen from context 8 (sample Beta-297522), which was the layer from which Drewett collected his Archaic Age date. The respective dates acquired were  $4230 \pm 50$  BP with an age range of 2530-2220 Cal BC ( $2\sigma$ ) and  $4780 \pm 40$  BP with an age range of 3280-2940 Cal BC. Drewett's original dating sample was also recalibrated to 2320-1750 BC ( $2\sigma$ ). These dates not only confirmed the Archaic Age component of the site but indicated that the occupation at Heywoods took place even earlier than previously reported (Fitzpatrick 2011: 600). They clearly fell into the Early (3300 – 2600 BC) and Middle (2600 – 800 BC) Archaic Age phases proposed by Keegan and Hofman (2017: 201). While the Archaic Age date for occupation at Heywoods was confirmed, this has now been bolstered with three additional dates reported here for the first time in Table 1 (D-AMS 001792, D-AMS 001793, D-AMS 001794). Questions still remain, however, as to why Heywoods does not exhibit the typical lithic Archaic Age tool kit (Fitzpatrick 2011: 595). Below, we provide some reasons why this might be the case.

### **Location**

Drewett interpreted the Heywoods finds as being left by Archaic Age peoples who dwelled close to a marine inlet bordered by mangroves and in close proximity to the forest (Drewett 1995: 275). It appears that the inlet regularly flooded bordering areas, covering the Archaic Age component with several layers of clay (Drewett 2007: 9). Drewett (2007: 1) suggested that the site had been selected 'above sweet water' (*i.e.*, freshwater). Without neglecting the importance of this critical resource, it is important to stress here that freshwater can be collected from many beaches in Barbados, and that Heywoods is far from unique in that respect. The presence of potable water was prob-

*Figure 2.2. View of the Heywoods site (looking east) during the 1995 project showing the 2 m deep trench dug by backhoe to expose stratigraphy (Scott Fitzpatrick).*



*Figure 2.3. View of Heywoods (looking east) during the 1995 project showing flooding after heavy rains (Scott Fitzpatrick).*



*Figure 2.4. The Heywoods site (looking east) in 1995 showing a large area exposed by backhoe with several smaller excavation units opened to recover concentrations of material (Scott Fitzpatrick).*



*Figure 2.5. 1995 Excavation in progress. Peter Drewett's son Dan (right) scours the spoil heap for archaeological material (Scott Fitzpatrick).*



ably not the only determining factor for Archaic Age presence in this area. Another attractive factor was probably the presence of mangroves. While today they are very rare in Barbados, mangroves are critical ecozones, that provide a number of important and easily obtainable resources, including crustaceans, finfishes, mollusks, and birds (De Waal this volume chapter 1). Some other Archaic Age sites from the region were also close to mangrove environments, including several Ortoiroid sites in Trinidad (Rouse 1992: 63), Pointe des Pies in Guadeloupe (Richard 1995), and Norman Estate (Knippenberg 1999) and Orient Bay (Bonnissent 2013) on St. Martin. The presence of mangroves is not a decisive factor, however, as inland Archaic Age sites are also known, including Boutbois and Le Godinot on Martinique (Allaire and Mattioni 1983) (although their dating into the Archaic Age may be disputed; cf. Bérard 2006a; 2006b) and Plum Piece on Saba (Hofman *et al.* 2006; Hofman and Hoogland 2003). Keegan and Hofman (2017: 202) conclude that, apart from these inland exceptions, Early Archaic sites are typically found adjacent to the coast.

### **The Archaic archaeological assemblage**

Compared to other Archaic Age sites known in the Lesser Antilles, Heywoods has a unique archaeological assemblage. Apart from 12 shell adzes (230, if the adzes collected by archaeology enthusiasts during watching briefs are included) and *Lobatus* sp. shells and faunal remains, no other finds could definitively be attributed to this layer. Other Archaic Age sites in the Lesser Antilles are known to have edge grinders, partially ground axes, and adzes of stone and shell, along with flint flakes (Rouse 1992). Most of these materials are missing from the Heywoods assemblage. Of the shell adzes found, Drewett *et al.* (2000: 103) suggested they were made from the flaring lips of queen conch shells elsewhere and then brought to Heywoods. Drewett (2007: 12) indicated that many of the adzes still seemed sharp and may have been deliberately deposited without being used. Other adzes, however, clearly showed obvious traces of use-wear and damage. Although it may be questionable whether the adzes represent a deliberate deposition, it is notable that in some other Archaic Age sites, adzes have also been found in dense concentrations.

At Plum Piece, for example, no less than 20 shell adzes, in addition to some blanks and lip fragments, were collected from only 9m<sup>2</sup> (Hofman and Hoogland 2003: 18). As these adzes were found in several caches, Keegan and Hofman (2017: 206) suggested that this was probably the result of deliberate deposition. Drewett (2000: 29, 168; 2002: 1-2; Drewett and Bennell 2000: 29) seems to hint at ceremonial deposition, noting that the unused adzes were purposefully deposited in a watery environment, which represented an important food source. Keegan and Hofman (2017: 206) interpret the Plum Piece caches instead as:

*‘purposeful deposition related to the recurrent abandonment and reoccupation of the campsite’.*

The adzes may have played an important role in the presumed activities that took place at Plum Piece. Hofman and Hoogland (2003: 32) suggested that building dugout canoes was one of these. Boomert (2000: 78) described a similar function for the Archaic

Age inland sites on Martinique. Several caches of *Lobatus sp.* adzes were discovered in Orient Bay, St. Martin, as well, with their presence explained as being the result of the site functioning as a workshop for the manufacture of shell tools (Bonnissent 2013: 42-43). It is quite possible that there were varied reasons for this practice, though utilitarian reasons seem to prevail given the current evidence.

It is unclear why shell adzes were deposited at Heywoods in such fashion. As Amerindian canoes probably required around 500 kg (c. 1100lbs) of ballast to optimize sea travel (Bérard personal communication 2015), transporting shell tools in bulk cargo while moving through the region would not have been extraordinarily difficult. As Heywoods is very close to the shore, transporting adzes to canoes before leaving Barbados would have taken little effort, especially compared to the time needed for manufacture. Having ready access to shell adzes would have also been useful when traveling to other islands or the mainland. Leaving the adzes at Heywoods would thus seem to have been a deliberate choice by groups who knew they would be returning to this location and re-collecting the adzes and/or raw material for future use. Local storage of a stock of shell implements may also explain the presence of non-used adzes. However, two issues seem to contradict this explanation. First, for constructing dugout canoes, the shell implements would have needed to be hafted, an activity that requires some skill and effort. But, by storing hafted adzes, the wood would have easily decomposed in wet, tropical conditions. Regarding local storing conditions, it seems more logical that only the shell implements were stored for future use. Second, the shell adzes were found very close to the former marine inlet. Because this area may have regularly flooded and probably did not represent the most stable or secure location, the notion that the tools were simply stored for practical future use seems to be the most likely explanation.

It is probable that only a very small portion of the Archaic Age deposit was actually recovered, and as such we cannot sufficiently determine whether the site contained manufacturing debris that would result from making shell tools (and thus, if there was a workshop for this specific activity). Given the absence of features, dense midden deposits, or other lines of evidence indicating habitation, Drewett (2007: 12) suggested that the presence of several used, broken, and discarded adzes was the result of activities related to the processing of food or else could be related to craft activities.

Use-wear analysis of the shell adzes to identify the specific purposes for which the adzes were made would be informative. Other similar studies led Lammers-Keijsers (2007: 143), for example, to conclude that shell celts were used in cutting down trees and working wood. Van Gijn *et al.* (2008: 105, Figure 8.2a-b) indicated that the shell celts found at Plum Piece on Saba had been used for heavy wood-working, possibly related to canoe construction.

## **Mobility**

In terms of Archaic Age settlement patterns and population movements, Drewett (2007: 12, 84) was uncertain from where peoples at Heywoods originated, but he considered it likely that they had moved directly from the South American mainland, perhaps through Trinidad and/or Tobago. As only a small part of the Archaic Age site seems to have been identified – making it difficult to discern if stone imple-

ments had been used as well – this explanation remains somewhat tenuous. As noted above, however, these are not the only kinds of materials missing from the site when compared to typical artifacts of other Archaic Age deposits in the Caribbean. Those parts of Heywoods were possibly lost over time due to erosion (Drewett 2007: 84), flooding, and plantation-era activities, which surely affected preservation of the site. But, it is still curious why other typical elements of Archaic Age occupation are not found on the island.

According to Drewett (1995: 276), Archaic Age Heywoods was probably occupied intermittently. He also considered it likely that Archaic Age people in Barbados tended to be moving around on the island more rather than they would be travelling between islands.

Looking at other similarly aged sites in the region, there is no reason to suggest that Archaic Age people at Heywoods would have preferred to stay in Barbados without moving episodically through the region. Investigations at Plum Piece have sketched an image of small mobile groups moving seasonally, while temporarily staying at specific locations, which had ready access to specific natural resources (Hofman *et al.* 2006). A similar scenario has been proposed for Archaic Age Orient Bay (Bonnissent 2013), with Rodríguez Ramos *et al.* (2013: 135) describing dynamic and long-distance Archaic Age ‘webs of interaction’, including botanical products, geological materials (lithics), and ideological connections. If not for other social or political reasons, the need to find marriage partners outside close kin groups must already have provided an important impetus for maintaining intergroup contacts. Where archaeologists are inclined to try to understand Archaic Age inter-island contacts by looking at possibilities for an optimal procurement of natural resources (which would be influenced by heterogeneous environmental settings), it is plausible that the social setting may have been equally important. Without denying the possible existence of long-distance contacts, nearby islands, including St. Lucia, St. Vincent, the Grenadines, and Grenada could also have provided such social, political, and economic relationships for Archaic Age groups living on Barbados.

Although there is a general consensus that Archaic Age groups were highly mobile, the modes of behavior behind such activities are not well understood. Castilla-Beltrán (2015) has attempted to model mobility throughout the different Archaic Age phases, which are thought to vary through time due to population increase and more intensive use of territories that may have created increasingly efficient and safe voyages. Although we should be circumspect when developing models for the Archaic Age because of the relatively small and ephemeral nature of these sites (cf. Siegel *et al.* 2015: 277) – as well as differences in research methods and paucity of systematic investigations – Castilla-Beltrán (2015) does propose ways in which these may have occurred. Castilla-Beltrán (2015) characterizes the phase between 3200 BC- 2000 BC as one in which there was long-distance travel and direct exchange. This may be surprising given that these societies were apparently highly mobile, but their number was fairly small and easily accessible natural resources were widely available, thus allowing for direct procurement.

Later Archaic Age phases are characterized by stronger and more complex social networks, developing via highly connected social communities with direct procurement and direct exchange between 2000 – 800 BC, to complex, even competing, social dynamics and a process of down-the-line exchange from 800 BC – AD 100 (Castilla-

Beltrán 2015: 135). According to Castilla-Beltrán (2015: 111), the early phase is most accurately characterized by regional distribution, including stable residential camps and a few special-activity sites, which focused on ecologically varied territories. He concludes that, when looking at the general characterizations, Heywoods is enigmatic.

This is not surprising as Heywoods falls outside the range of the more or less contemporary sites that are all concentrated in the northern Lesser Antilles, with no evidence found at Heywoods to provide information on regional movements of local occupants. We discuss these issues further below.

### **The Archaic Age Enigma of Barbados**

As the only known Archaic Age site on both Barbados and the southern Lesser Antilles, important questions remain as to what Heywoods represents archaeologically, how it may fit into broader patterns of Archaic Age settlement and mobility, and why the site appears anomalous compared to other contemporaneous sites. As previously discussed, the archaeological assemblage recovered from what was probably only a small portion of the site, is unique in that it does not exhibit the ‘standard’ Archaic tool kit that includes lithics, nor does it have any real substantial evidence for major and diverse subsistence activities. Admittedly, much of Heywoods has been impacted over the centuries from a variety of cultural and natural processes, but it is still curious as to why no other kinds of archaeological remains were recovered or observed, even incidentally. Could this be an artifact of survey and have other Archaic sites been missed on the island or elsewhere in the region, or does Heywoods truly represent something atypical?

It is worth reiterating that there have been no unequivocal Archaic sites found in the Windward Islands south of the Guadeloupe passage, which stretches for about 450 km (280 miles) from there to Grenada across several major islands (from north to south: Dominica, Martinique, St. Lucia, St. Vincent, and dozens of islands in the Grenadines). It is true that less archaeological research has been done on most of these islands compared to many in the Leeward Islands, and the fact remains that Archaic sites are usually ephemeral and low density. It is quite possible that some have been lost over the years due to erosion, sea level rise, or development, or perhaps obscured by volcanic tephra, making them difficult to discover. Let us assume, however, that the empirical evidence currently available is a relatively accurate portrayal of Archaic Age settlement in the Lesser Antilles. What would their patterns of settlement have been? Keegan and Hofman (2017: 201) sketch three possible scenarios:

*‘First, Archaic Age communities in Trinidad, Tobago and Barbados arrived from South America. Second, the Archaic Age occupants of these islands bypassed the southern Lesser Antilles (Windward Islands) and headed directly to the northern Lesser Antilles, where there is ample evidence for their presence during this period. However, there is no logical explanation for why these islands would have been bypassed. Third, the westward [sic; should be ‘eastward’] expansion of Lithic Age communities from Central America to Cuba and Hispaniola, then Puerto Rico, and finally the northern Lesser Antilles expressed Archaic Age characteristics (e.g.*

*ground stone tools) obtained through the diffusion of technology and not the movement of people. In other words, there was not a separate migration into the Antilles of Archaic Age communities from northeastern South America.'*

In regards to the first scenario, let us assume that peoples ventured directly from South America to Barbados, Trinidad, and Tobago. However, there are several issues with this that should be considered. Trinidad today is less than 15 km (9 miles) from the South American mainland and would have been even closer, if not nearly connected, during the early to middle Holocene. That the earliest radiocarbon dates for islands in the Caribbean are around 8000 Cal BP and come from Trinidad is not entirely unexpected, for its close proximity to Venezuela makes its colonization much easier and different in terms of seagoing than the rest of the Antilles (Fitzpatrick 2015). There is a suite of dates for Barbados that hover between 3000-2000 Cal BC (see Fitzpatrick 2011: 595; Table 1), potentially making Heywoods the oldest site between Trinidad and Puerto Rico. Based on chronology alone, in conjunction with what we know of Ceramic Age settlement of the southern Lesser Antilles – which appear to have been settled centuries after the northern islands – Barbados could have been settled from South America and/or Trinidad without having had a long history of using lithic technologies as is common in the north. That Barbados is an uplifted limestone island and lacks tool quality stone could also explain why shell was used instead. But, if traveling between islands were fairly easy and commonplace, it would seem odd that no lithics were introduced and used.

This brings us to another issue, and that is the general difficulty of getting to Barbados with watercraft given the region's prevailing currents and winds, something that was not explicitly addressed by Keegan and Hofman (2017). Callaghan's (2001; 2010) research has clearly shown the difficulty that peoples would have faced in moving in paddling canoes eastward from either South America northward or the Greater Antilles southward. And it is notable that Barbados was the only major island in the Caribbean never to change hands between colonial powers, largely in part because sailing conditions were so challenging, a phenomenon well-known today by sailors. Several attempts by the French and Dutch to take the island from the British once they became established there were unsuccessful (Jamieson 1981). While it is clear that peoples arrived to Barbados thousands of years ago, and continued to settle there during the Ceramic Age, there were certainly inherent challenges with the winds and currents that peoples faced through time when attempting to reach the island. With these considerations in mind, perhaps the logical explanation that Keegan and Hofman (2017: 201) were seeking could be rooted in environmental conditions and seafaring capabilities that prevented ancient Amerindians from easily venturing to some islands and not others until much later in time as canoe technologies and/or navigational (wayfinding) capabilities were improved upon (see Fitzpatrick 2013a for further discussion).

The third option proposed by Keegan and Hofman (2017: 201) involved peoples – who were descendants of earlier (Lithic/Archaic) groups already occupying Cuba/Hispaniola/Puerto Rico – to have actually moved eastward through the Greater and northern Lesser Antilles first and obtained their technological repertoire through the diffusion of ideas and not the result of a separate migration northward from South America, which had seemingly bypassed the Windward islands. This could explain the



Lab No.	Type		species	Unit	Context	cmbs	Meas. 14C age	No $\Delta R$
Beta-297521	shell	Conv.	<i>L. gigas</i> (adze)	39	7	130-140	4230 $\pm$ 50	2530 – 2220 BC
Beta-297522	shell	AMS	<i>L. gigas</i> (juvenile)	39	8	140-150	4780 $\pm$ 40	3280 – 2940 BC
I-16,840	shell	Conv.	<i>L. gigas</i>	39	8	140-150	3980 $\pm$ 100	2320 – 1750 BC
D-AMS 001792	shell	AMS	<i>L. gigas</i> (juvenile)	39	7	130-140	4366 $\pm$ 32	2660 – 2460 BC
D-AMS 001793	shell	AMS	<i>L. gigas</i> (juvenile)	35	7	130-140	4278 $\pm$ 29	2550 – 2340 BC
D-AMS 001794	shell	AMS	<i>L. gigas</i> (juvenile)	35	8	130-140	4091 $\pm$ 27	2290 – 2080 BC

Table 2.1. Archaic Age radiocarbon dates from Barbados.

overwhelming presence of sites dating to the Archaic Age and the early dates found generally in the northern Caribbean. However, using current evidence, the Barbados dates are still centuries or even millennia earlier than the northern Antilles and so it would appear that either: 1) the island was settled separately from South America at a different time; or 2) earlier dates and (more) sites have not yet been found on islands across the Lesser Antilles that would link Barbados with a broader trend of settlement during the Archaic Age. It is worth noting that the latter scenario would also have to hold true for later Ceramic Age settlement since the earliest Saladoid dates (ca. 500 BC) are also found in the northern Caribbean and become progressively younger as one moves south (Fitzpatrick 2013b).

Recently, Siegel *et al.* (2015: 289) have proposed that paleoenvironmental evidence in the form of increased charcoal particles and shifts in plant regimes, pointing to landscape alteration and growing numbers of economically useful taxa, taken from cores in Trinidad, Grenada, Martinique, and Marie-Galante suggest colonization at around 5000 BP. They argue that these lines of evidence indicate early island occupations, modifying and managing parts of the landscape, and that a possible practice of land management without occupation might explain the rarity of Archaic Age sites in certain areas.

Siegel *et al.* (2015) also suggest that many sites dating to the Archaic Age may have been lost or obscured for many of the same reasons listed above (*e.g.* sea level rise, coastal erosion, sedimentation) and as such, paleoenvironmental data potentially hold the best or only clues to human arrival.

While the paleoenvironmental evidence is tantalizing and would seem to provide a suitable explanation for the dearth of Archaic sites found in the southern Caribbean – and considering that sea level changes, climatic fluctuations, and other natural processes were not uniform across the entire region through time – it is still unclear why the Windward islands would have such an absence of both Archaic and early Saladoid (500 BC – AD 1) sites compared to those islands in the north. In addition, if peoples had visited Grenada 3000-3500 years earlier than the earliest acceptable radiocarbon dates from archaeological sites, why would they have chosen not to settle this and other islands until millennia later? While Siegel *et al.* (2015) claim that paleoenvironmental evidence should be considered equal to or even a better indicator of human presence than archaeological data for various reasons, the fact remains that an increase in charcoal particulates in a coring sequence during a ‘wetter’ period as bracketed by a few radiocarbon dates does not necessarily indicate that fires were anthropogenic. As Caffrey and Horn (2015: 229) note in their study of cores from three lakes in Puerto Rico and Hispaniola:

*'an increase in charcoal influx at Laguna Tortuguero [Puerto Rico] at ca. 5200 Cal BP, previously interpreted as a signal of human settlement predating archaeological evidence, may instead reflect insolation-driven shifts in winter drying that led to more frequent and possibly more intense natural fires'.*

In other words, even hydric conditions generally observed in long-term paleoenvironmental sequences can mask annual, decadal, or even centennial periods that are more xeric, in part due to the imprecision of radiocarbon dating.

As such, when the pollen and other records from the three cores were compared, this showed:

*'possible intervals of synchronous, climate-driven burning as distinct from more localized anthropogenic burning' (Caffrey and Horn 2015: 229) and 'would have resulted in increasingly drier winters that could have promoted progressively earlier dry season wildfires' (Caffrey and Horn 2015: 239).*

Given the ambiguity of the paleoenvironmental data and the absence in Siegel *et al.*'s (2015) cores of horticulturally important plants such as maize or cassava that would have presumably accompanied first settlers – while also acknowledging that there is a general lack of survey coverage across many parts of the Caribbean – we prefer to use archaeological evidence as our basis for interpreting the Archaic record in the region. As such, until more robust lines of cultural evidence are found, Heywoods still represents the only firmly dated and unequivocal Archaic Age site in the southern Lesser Antilles.

## Conclusions

The Archaic Age in Barbados, represented by only the single site of Heywoods, remains an enigma because it is the only one found in the Windward islands between Guadeloupe and Trinidad/Tobago, is earlier than some Archaic sites (and islands) in the northern Caribbean by centuries or millennia in some cases, and does not include the more typical archaeological assemblages found in the more northern islands. Why this is the case is not easily explainable. Our interpretation still suffers from a general lack of archaeological investigation in this part of the Caribbean and it is possible that various phenomena have obscured, damaged, or destroyed similarly aged sites on the island and elsewhere. It is not unreasonable to suggest that Archaic peoples had moved through more islands in the Antilles than is now archaeologically visible. But, rather than presuming they did, using equivocal paleoenvironmental evidence versus more robust archaeological data (which ironically relies as much on negative evidence as does the paleoenvironmental data proffered by Siegel *et al.* (2015: 277) to explain colonization strategies), we prefer a more empirically based approach that utilizes the presence/absence of artifacts and other unambiguous cultural conventions, so long as they are anchored well chronologically. Drewett *et al.*'s (1993) discovery of the Heywoods site was significant for a number of important reasons that we have outlined in this chapter. It is truly unfortunate that destruction of the site, though delayed in part for several years due to Drewett's ongoing efforts to convince local developers to allow archaeological investigation, prevented more detailed study that might have illuminated our

understanding of not only the Archaic Age component, but later settlement during the Ceramic Age, for which the site revealed numerous significant finds.

## References

Allaire, L. and M. Mattioni.

1983 Boutbois et le Godinot: deux gisements acéramiques de la Martinique. In *Proceedings of the Ninth International Congress for the Study of the Pre-Columbian Cultures of the Lesser Antilles*, edited by J. Benoist and F. Mayer, pp. 27-38. Centre de Recherches Caraïbes. Montreal.

Armstrong, D.

1980 Shellfish gatherers of St. Kitts: a study of archaic subsistence and settlement patterns. In *Proceedings of the Eighth International Congress for the Study of Pre-Columbian Cultures of the Lesser Antilles*, edited by S. Lewenstein, pp. 152-167. Arizona State University Anthropological Research Papers 22, Tempe.

Barton, G.

1979 *The Prehistory of Barbados*. The Layne Company, Halifax [reprint from first edition 1953].

Bérard, B.

2006a. Le Carbet: Boutbois. *Bilan Scientifique Martinique* 2003:9-11.

2006b. Le Carbet: Godinot. *Bilan Scientifique Martinique* 2003:12-13.

Bonnissent, D.

2013 *Les gisements précolombiens de la Baie Orientale. Campements du Mésoindien et du Néoindien sur l'île de Saint-Martin (Petites Antilles)*. Paris, Documents d'archéologie française, éditions de la Maison des Sciences de l'Homme, Paris.

Boomert, A.

2000 Trinidad, Tobago and the Lower Orinoco Interaction Sphere. An archaeological/ethnohistorical study. PhD dissertation, Leiden University.

Bright, A.

2011 Blood is thicker than water. Amerindian intra- and inter-insular relationships and social organization in the pre-Colonial Windward Islands. PhD dissertation Leiden University. Sidestone Press, Leiden.

Caffrey, M. and S. Horn.

2015 Long-term fire trends in Hispaniola and Puerto Rico from sedimentary charcoal: A comparison of three records. *The Professional Geographer* 67/2:229-241.

Callaghan, R.

2001 Ceramic age seafaring and interaction potential in the Antilles: a computer simulation 1. *Current Anthropology* 42/2:308-313.

2010 Crossing the Guadeloupe passage in the Archaic Age. In *Island Shores, Distant Pasts: Archaeological and Biological Perspectives on the Pre-Columbian Settlement of the Caribbean*, edited by S. Fitzpatrick and A. Ross, pp. 127-147. University Press of Florida, Gainesville.

Castilla-Beltrán, A.

2015 Seasonal Seafarers, A Complex Systems exploration of Archaic Age mobility strategies and social dynamics in the North-Eastern Caribbean. Unpublished RMA thesis, Leiden University, Leiden.

Clerc, E.

1976 Possibilité d'un peuplement précéramique en Guadeloupe. In *Proceedings of the Sixth International Congress for the Study of the Pre-Columbian Cultures of the Lesser Antilles* edited by R. Bullen, pp. 44-45. University of Florida Press, Gainesville.

Davis, D.

2000 *Jolly Beach and the preceramic occupation of Antigua, West Indies*. Yale University Publications in Anthropology 84, New Haven.

Drewett, P.

1991 *Prehistoric Barbados*. Archetype Publications, London.

1995 Heywoods: Reconstructing a Preceramic and Late Landscape on Barbados. In *Actas del XV Congreso Internacional de Arqueología de Caribel Proceedings of the Fifteenth International Congress for Caribbean Archaeology*, edited by R. Alegria and M. Rodriguez, pp. 273-282. Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan, Puerto Rico.

2000 *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*. Archetype Publications, London.

2002 *Amerindian Stories: An Archaeology of Early Barbados*. Barbados Museum and Historical Society, Bridgetown.

2004 Post-Saladoid society on Barbados. In *Late Ceramic Age Societies in the Eastern Caribbean* edited by A. Delpuech and C. Hofman, pp. 215-230. BAR international Series 1273, Oxford.

2006 Dating the prehistoric settlement of Barbados. *Journal of the Barbados Museum and Historical Society* 52:202-14.

2007 *Above Sweet Waters. Cultural and Natural Change at Port St. Charles, Barbados, ca. 1750 BC – AD 1850*. Archetype Publications, London.

Drewett, P. and M. Bennell.

2000 Settlement archaeology on Barbados II. The Port St Charles (Heywoods) Archaeological Rescue Project. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 27-50. Archetype Publications, London.

Drewett, P., M. Harris, L. Newsom and E. Wing.

1993 Excavations at Heywoods, Barbados, and the economic basis of the Suazoid Period in the Lesser Antilles. *Proceedings of the Prehistoric Society* 59:113-137.

Drewett, P., G. Hunt, M. Bennell and L. Drewett.

2000 Barbados material culture II. Shell, stone and wooden artifacts. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 103-112. Archetype Publications, London.

- Fitzpatrick, S.
- 2006 A critical approach to 14C dating in the Caribbean: using chronometric hygiene to evaluate chronological control and prehistoric settlement. *Latin American Antiquity* 17/4:389-418.
- 2011 Verification of an Archaic Age occupation on Barbados, southern Lesser Antilles. *Radiocarbon* 53/4:595-604.
- 2013a. Seafaring capabilities in the pre-Columbian Caribbean. *Journal of Maritime Archaeology* 8/1:101-138.
- 2013b. The southward route Hypothesis. In *The Oxford Handbook of Caribbean Archaeology*, edited by W. Keegan, C. Hofman and R. Rodriguez Ramos, pp. 198-204. Oxford University Press, Oxford.
- 2015 The pre-Columbian Caribbean: colonization, population dispersal, and island adaptations. *PaleoAmerica* 1/4:305-331.
- Hackenberger, S.
- 1991 Archaeological test excavation of Buccament Valley Rockshelter, St. Vincent: preceramic stone tools in the Windward Islands, and the early peopling of the Eastern Caribbean. In *Proceedings of the Thirteenth International Congress for Caribbean Archaeology*, edited by E. Ayubi and J. Haviser, pp. 86-91. Reports of the Archaeological-Anthropological Institute of the Netherlands Antilles, No. 9, Curaçao.
- Haviser, J.
- 1991 Development of a prehistoric interaction sphere in the Northern Lesser Antilles. *Nieuwe West-Indische Gids* 65/2:129-151.
- Hofman, C., A. Bright and M. Hoogland.
- 2006 Archipelagic resource mobility. Shedding light on the 3000-year-old campsite at Plum Piece, Saba (northern Lesser Antilles). *Journal of Island and Coastal Archaeology* 1/2:145-164.
- Hofman, C. and M. Hoogland.
- 2003 Plum Piece, evidence for archaic seasonal occupation on Saba, Northern Lesser Antilles around 3300 BP. *Journal of Caribbean Archaeology* 4:12-27.
- Jamieson, A.
- 1981 War in the Leeward Islands: 1775-1783. Unpublished PhD thesis, University of Oxford.
- Keegan, W. and C. Hofman.
- 2017 *The Caribbean before Columbus*. Oxford University Press, Oxford.
- Knippenberg, S.
- 1999 Norman Estate. Methods and strategies. In *Archaeological investigations on St. Martin (Lesser Antilles). The sites of Norman Estate, Anse des Pères and Hope Estate with a contribution to the 'La Hueca problem'*, edited by C. Hofman and M. Hoogland, pp. 25-34. Archaeological Studies Leiden University 4, Leiden.

- Lammers-Keijsers, Y.  
 2007 Tracing traces from present to past: a functional analysis of pre-Columbian shell and stone artifacts from Anse à la Gourde and Morel, Guadeloupe, FWI. PhD dissertation Leiden University.
- Richard, G.  
 1995 Pointe des Pies. *Bilan Scientifique de la Région Guadeloupe 1992-1994*:25. Publication of the Direction Régionale des Affaires Culturelles, Guadeloupe.
- Rodríguez Ramos, R., J. Pagán Jiménez and C. Hofman.  
 2013 The Humanization of the Insular Caribbean. In *The Oxford Handbook of Caribbean Archaeology*, edited by W. Keegan, C. Hofman, and R. Rodríguez Ramos, pp. 126-140. Oxford University Press, Oxford.
- Roobol, M. and A. Smith.  
 1980 Archaeological implications of some Radiocarbon dating on Saba and St. Kitts. In *Proceedings of the Eighth International Congress for the Study of Pre-Columbian Cultures of the Lesser Antilles*, edited by S. Lewenstein, pp. 168-176. Arizona State University Anthropological Research Papers 22, Tempe.
- Rouse, I.  
 1992 *The Tainos. Rise and Decline of the People who Greeted Columbus*. Yale University Press, New Haven.
- Siegel, P., J. Jones, D. Pearsall, N. Dunning, P. Farrell, N. Duncan, J. Curtis and S. Singh.  
 2015 Paleoenvironmental evidence for first human colonization of the eastern Caribbean. *Quaternary Science Reviews* 129:275-295.
- Van Gijn, A., Y. Lammers-Keijsers and I. Briels.  
 2008 Tool use and technological choices: an integral approach toward functional analysis of Caribbean tool assemblages. In *Crossing the Borders: New Methods and Techniques In the Study of Archaeological Materials from the Caribbean*, edited by C. Hofman, M. Hoogland and A. Van Gijn, pp. 101-114. University of Alabama Press, Tuscaloosa.
- Watters, D., R. Donahue and R. Stuckenrath.  
 1992 Paleoshorelines and the prehistory of Barbuda, West Indies. In *Paleoshorelines and Prehistory: An Investigation of Method*, edited by L. Johnson, pp. 15-52. CRC Press, London.
- Wilson, S.  
 1989 The prehistoric settlement pattern of Nevis, West Indies. *Journal of Field Archaeology* 16/4:427-450.
- Wing, E.  
 2000 Economy and subsistence I. Animal remains from sites on Barbados and Tortola. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 147-153. Archetype Publications, London.

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# The Pre-Colonial Pottery of Barbados

*Mary Hill Harris*

## **Abstract**

Although visitors to Barbados have been aware of the existence of pre-colonial remains since at least the seventeenth century, scientific investigations expanded greatly from the middle of the twentieth century. This chapter gives a history of such investigations, concentrating largely on the over 20 years' work (1984-2007) of the Barbados Archaeological Survey, and describes Barbados ceramics as they fit into the overall picture of Lesser Antillean pottery. The island was certainly occupied during the Early Ceramic Period, with just a few Insular Saladoid sherds and many more Modified Saladoid sherds, and continued through the Troumassoid up to a seeming florescence in the Troumassoid/Suazoid.

**Keywords:** *Amerindian, ceramics, pottery style, BAS project.*

## **Introduction**

For many years Barbados' archaeology was dominated by amateur collectors. Given the durability in tropical conditions of pottery, shell and stone, much of what remains for study from collections made in the years before professional archaeology hit the island, is made of these materials. Even in more recent times, amateurs need to be given credit for discovering, collecting, and in some cases excavating, pre-colonial artifacts. Much of the very early collected material has been dispersed to museums throughout the world, including the British Museum, to which Greville Chester donated his collection, and the Museum of the American Indian in New York, which houses Jesse Fewkes' collection. The nineteenth-century naturalist H. W. Feilden brought back from Barbados not only a collection of birds, now in Cambridge University's Zoology Museum, but also pre-colonial shell, stone and pottery now housed at the University's Museum of Archaeology and Anthropology. There are stone petaloid celts, many shell

eared axes, but also pottery from Maxwell (Harris and Hinds 1995), Bathsheba (Harris and Drewett 1995: 305) and Indian River.

Many of the display-quality ceramic pieces in the Barbados Museum and Historical Society (BMHS) as well as in the display in Harrison's Cave, come from early collectors from Barbados, in particular C.N.C. Roach, Edmond Knight Taylor, and G. Clarke-Holman. Roach published a series of articles on Barbados pottery in the *Journal of the BMHS* in the late 1930s (Roach, C.N.C., as reprinted in Taylor 1991: 87-316), although, interestingly, Roach refused to excavate for fear of disrespecting the dead, and collected only purchased pieces and surface finds. Subsequently, G.T. Barton (1979[1953]) published a useful book classifying Barbados pottery types. Barton was not a professional archaeologist but had lived in Barbados and studied the subject for many years. He claimed that Barbados has typical pottery forms that are only found on this island and he distinguished different temper materials, stating that temper was of coarse sand for the larger pots, fine sand or powdered shell for the thin-walled pieces, and occasionally grog or ground-down pottery (Barton 1979[1953]: 46).

Early excavators in Barbados were E.M. Shilstone, Ronald Taylor, Marshall McKusick, and Neville Connell, but the first large professional stratified excavations were carried out by Ripley and Adelaide Bullen of the Florida Museum of Natural History, who had previously excavated in several other Caribbean islands (Bullen 1962, 1964, 1968; Bullen and Bullen 1972). Much subsequent study of Windward Islands pottery is based on the categories Bullen developed based primarily on his excavations in Grenada, and named for sites there (Bullen 1964: 38-52). As they were based on paste types, these cannot be transferred exactly to the pottery found in Barbados, but his sequence has still proved useful for analysis of Barbados finds.

In the 1980s a Peace Corps volunteer at the BMHS, Steven Hackenberger, carried out test excavations at the pre-colonial sites at Goddards, Brandons, Greenland, and the Shell Oil Depot, and did a surface collection at Divi St. James, Sunset Crest (Hackenberger 1987; 1988). In 1984, before Hackenberger's arrival, the then curator of the BMHS, David Devenish, sent out a request to British museums for an archaeologist who would mount a professional investigation of Barbados archaeology. Peter Drewett of University College London's Institute of Archaeology responded, and following an exploratory visit in 1984 the Barbados Archaeological Survey (BAS) was started in 1985. The island was surveyed, and over the following 15 years excavations were undertaken at the pre-colonial sites at Chancery Lane, Hillcrest, Silver Sands, Heywoods (now Port St. Charles), and smaller sites including Fontabelle, Welches and Maxwell. During all of the period of BAS excavation another amateur archaeologist, Dr. Ronald Hinds, has pointed out archaeological sites, has excavated both with the BAS and on his own, and has kept an eye on developments between BAS visits (Drewett 1991; 2000; 2001; 2007; Drewett and Harris 1987; 1990; 1993; 1996/1997; Drewett *et al.* 1987; 1988; 1989; 1993; 1996/1997; Harris 1989; 1996/1997; 2001 a-b; Harris and Drewett 1995; Harris and Hinds 1995; Hinds *et al.* 1999). Since the end of the BAS, small-scale salvage excavations at pre-colonial sites have been undertaken by archaeologist Kevin Farmer of the BMHS and historian Karl Watson of The University of the West Indies (UWI). Their investigations have been published in the journals of the BMHS. Maaïke de Waal, Leiden University and former UWI archaeologist, carried out surface surveys and test pit excavations (De Waal in prep. a-c; De Waal and Lesparre 2018).



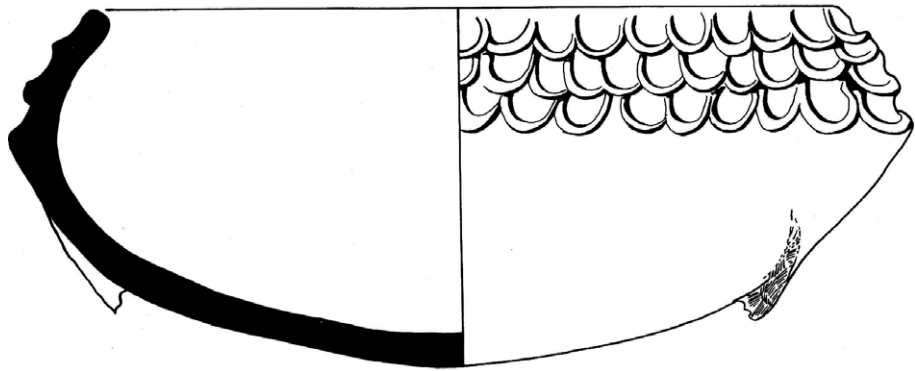


Figure 3.1. Fingermarked pottery from Silver Sands (Trench 2, Context 2), scale 1:2 (Drawn by L. Drewett and reproduced with permission from Drewett 1991, figure 49: 157).

### **Bullen's sequence of pottery**

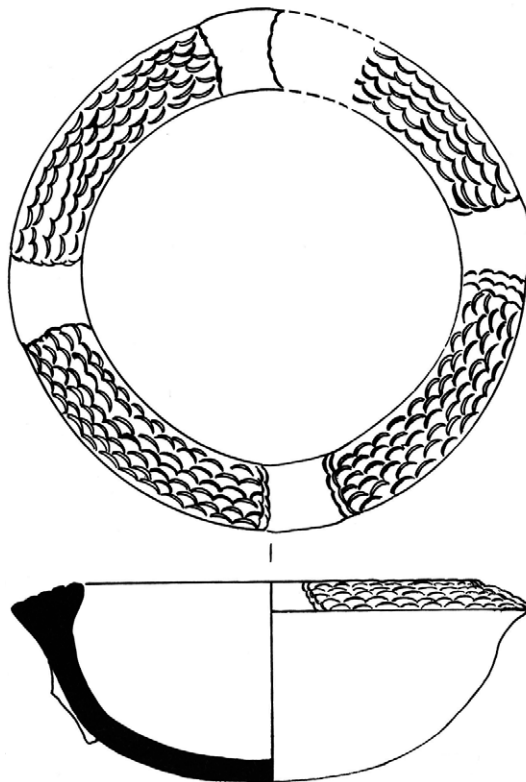
Bullen's sequence of pottery (Bullen 1964: 38-52) begins with the Pearls series, the early ('insular') Saladoid equivalent of Cedrosan Saladoid in Trinidad. It includes thin, hard, bell-shaped bowls, white-on-red (WOR) painting, zoned incised cross-hatch (ZIC) decoration, wishbone handles and adornos with 'nose over eyes'. In Barbados this is rare. Examples have been found at Chancery Lane (Drewett 1991: 53), South Point (Ronald Taylor personal communication), and Hillcrest (Drewett 1991: 81). The later Simon series, showing Barrancoid influence, is described as modified Saladoid. It is thicker than Pearls, with grooved rather than incised decoration, plentiful red paint sometimes with WOR, and with painted fields often separated by grooves. The rims, when flanged, tend to be somewhat thicker. There are modelled adornos and effigy vessels. This is the version of Saladoid most commonly found on Barbados, and it appears to persist well into the second half of the first millennium.

This Saladoid series is followed by the Saline and Airport series (Bullen 1964), which have not been identified in Barbados. Bullen (1964) further identified the Caliviny, Westerhall and Suazey series. The Westerhall series may be limited to Grenada, and both the Caliviny and Suazey series are now thought of as aspects of the Troumassoid period. Caliviny pottery is thicker than either Pearls or Simon, and the forms are different; there are more inturned forms, plainer round or flat rims, and ring bases appear. 'Caliviny Polychrome' is distinctive because of its painted decoration, using the colors red, black and white in broad lines, usually without accompanying grooves (Bullen 1964: 48-50). Bullen and Bullen (1968) thought this series might represent a separate period; this has been a point of disagreement among archaeologists (Boomert 1987) but in the BAS excavations its frequency was visibly greater in layers below those where scratching and fingermarking appeared. Scratching and fingermarking belong to the Suazey period, although in Barbados there are fewer scratched surfaces than in some other islands. Bullen (1964: 50) describes the thick and rough-surfaced Suazey pottery as 'the worst pottery present' in the Lesser Antilles. Rims are usually plain though some have been indented or everted to support fingermarked decoration. In Barbados, one might argue with the description 'worst', since the temper is usually evenly sorted, and fingermarking appears in highly and carefully planned patterns (figures 3.1-3.2).

Bullen believed Suazey ceramics to be the pottery of the Carib invaders who were reported by the *cronistas* (e.g. Raymond Breton, quoted in Hulme and Whitehead 1992: 109; Rouse 1992: 21-25). More recent studies, however, (e.g. Boomert 1987; 2011; Hofman and Hoogland 2012) have identified Cayo pottery to be that of the Island Carib. Cayo pottery has not been identified in Barbados.

### **Pottery from the Barbados Archaeological Survey (BAS) excavations**

Since Bullen's paste categories did not seem to carry over from Grenada to Barbados, and since it would have been too time-consuming to attempt microscopic examination



*Figure 3.2. Fingermarked pottery from Silver Sands (Trench 2, Context 2), scale 1:2 (Drawn by L. Drewett and reproduced with permission from Drewett (1991, figure 51; 167).*

of a large number of sherds, type analyses were carried out on the basis of macroscopic qualities: decoration, surface treatment, thickness (probably the single most important distinguishing characteristic of plain sherds), rim types and forms. In many sites it was possible to find differences in quantity of these characteristics between different contexts, and it was on this basis that contexts were assigned, or tentatively assigned, to different periods.

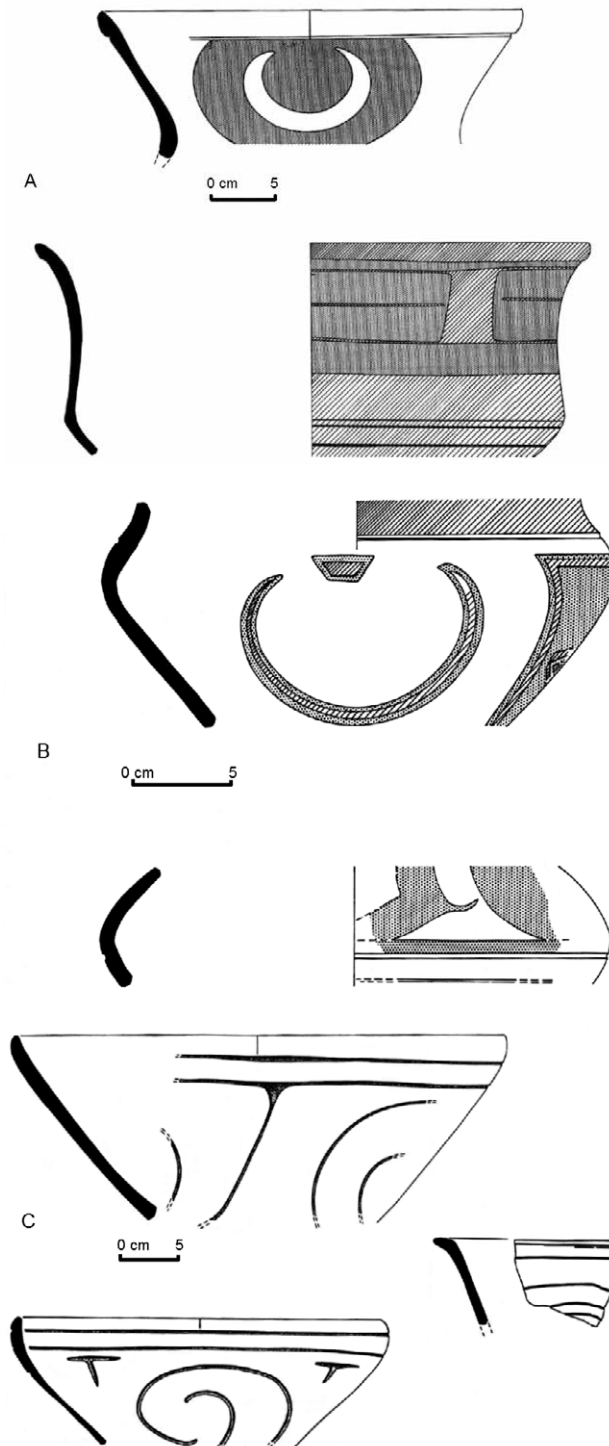


Figure 3.3. White-on-red vessels, Maxwell I (A-B) and grooved vessels, Maxwell II (C). (Drawn by L. Drewett and reproduced with permission from Harris and Hinds 1995: 521; figures 4-6).

The BAS started its excavations at Chancery Lane in 1985, which at that time was probably the site best known to be productive. Four trenches were dug in a line perpendicular to the coast, between Bullen's and Shilstone's old excavations (Drewett 1991: 20, figure 8). Trench 4 was sterile. Trenches 1 (which contained several burials) and 2 contained mostly Troumassoid material. Trench 3, the closest to the sea, showed chronological development between lower and higher contexts, although it was gradual and progressive. Saladoid characteristics such as red-slipped ware, wares under 5 mm. thick, flat-flanged rims, the few examples of ZIC, and other incised wares such as Interior Incised were most frequent in Context 5 (the oldest of the main contexts), followed by Context 3 (Drewett 1991: 22, figure 11). Later characteristics, including thick wares, scratched surfaces, fingermarked decoration, high ring bases, griddle feet and vessel feet were found in the sand layers in Contexts 1 and 2. Painted sherds were often hard to distinguish because of problems of preservation, and both WOR and Caliviny Polychrome were rare. Definite examples of Caliviny Polychrome came from Contexts 1 and 4, though there were also possible examples in the lower contexts. Contexts 1 and 2 were clearly Troumassoid/Suazoid, Context 5 Saladoid though with a few indicators of beginning Troumassoid, and Context 3 mixed between Saladoid and Troumassoid (Drewett 1991: 59). Drewett (1991: 25) has speculated that as the lagoon at Chancery Lane became silted up, the aboriginal inhabitants moved farther up the coast to a site with similar resources.

The following season excavations were concentrated at Hillcrest on the east coast. Hillcrest was the only promontory site excavated and much of the excavated material had clearly been washed down gullies; Drewett's interpretation of this was that pre-colonial clearing of the land for agriculture led to erosion. Following a small excavation in 1986, further test pits were taken out in 1987-88 in several lines running down the slope, and an area excavation was made at the place where a posthole was found indicating a house structure. Two phases of house construction were identified but they did not show any significant difference in pottery. The scarce pottery found in the area excavation was mixed and even included historic sherds, but the majority of sherds could be classified as Troumassoid/Suazoid, with grooving, Caliviny Polychrome and fingermarking all included. Many vessels seem to have had feet, and all griddle sherds were of the footed type (Drewett 1991: 28; 79).

In other parts of the site sherds were more varied. Particularly in the car park area, sherds were thinner, and red slip, grooved and (less frequently) incised decoration, and flanged rims are all present, but most of this was collected on the surface. Ceramics collected from the gully areas were mixed, as might be expected, and included rims, bases and decorative techniques from mid-Saladoid through Suazoid. The limited-area test trenches did not produce large numbers of sherds, but it seemed that most of the early sherds came from the test trenches highest up the hill (Drewett 1991: 81).

The BAS returned to Hillcrest in 1993, to the western side of the promontory. Further test trenches were dug, and near the most productive of these, a 5 x 5 m area was excavated. Most pottery came from the area excavation and sherds underneath the largest context looked distinctly earlier than those above. The largest context seemed transitional between Saladoid and early Troumassoid. It contained only a single finger-marked sherd; Caliviny Polychrome was largely confined to the top two layers; WOR, Zoned Red and Interior Incised were present in most layers. This area excavation was



Figure 3.4. Pottery from Spring Garden (Sean Carrington and reproduced with permission).

also the place in Hillcrest where most cross-hatched sherds were found. Some were definitely ZIC, some Barbados Incised Rim (BIR; also see under the discussion section) and some indeterminate, but all were on the exterior of the vessel.

Silver Sands was excavated in three phases: late 1988, summer 1989, and 1995. The site was very rich in sherds, most of which were Suazoid. Although chronological development was not discerned in all areas, 1988's Trench 2, 120 cm. deep, showed differences in popularity according to depth between Caliviny Polychrome and finger-marking. In the deepest level, 110-120 cm., Saladoid grooving makes up a substantial proportion of the decoration; above that, the two lower contexts (4 and 5) contain both painted Caliviny decoration and fingermarking, but painting predominates (up to 50% of decorated sherds), while in the upper contexts (1 and 2) fingermarking represents 75% or more of decoration, with about half of all the sherds over 15 mm. thick. In contexts 4 and 5 sherds are thinner though not as thin as Saladoid sherds. Throughout the trench both forms of decoration are present; it is only proportions which change. Footed vessels are common, and both zoomorphic and anthropomorphic adorns are plentiful. It is notable that some spindle whorls are also present (Drewett 1991: figure 51, nos. 169, 170, 171; figure 52, nos. 172, 173).

Contexts in the 1995 excavation contained redeposited and historic material, but some included a minority of sherds with Saladoid traits such as fine-line incision and barely possible remains of WOR, as well as the only sherds of flat griddles found at the site (Drewett 2000: 21; 66; 68). What is evident in Silver Sands is what might be called a florescence of the Suazoid. Fingermarked decoration is carried out in a very artistic form; some vessels are fingermarked in overlapping layers like a shingled roof (figure 3.1) and one footed bowl in highly polished blackware has fingernail marking so fine as to resemble basketry, in four sections divided by plain intervals (figure 3.2).



Figure 3.5. 'Giant interior incised' sherds from Three Houses (Bruce Jardine, reproduced with permission). Collection Bruce Jardine; scale unknown.

Heywoods has been excavated in several stages. The first was in 1986 when six test trenches were taken out in a line from the shore to the east, in an area which had been subject to historic transformation processes such as ploughing (Drewett 1991: 27). Almost all of the pre-colonial material there was clearly Troumassoid, mainly of the late, Troumassoid/Suazoid type. The team returned to the site in 1990-1991 and dug an additional 34 test trenches in lines parallel to the original six. One of these (Trench 39) had at the very bottom two preceramic conch lip adzes dated about 1630 BC (Drewett *et al.* 1993: 116); five late sherds in this context were interpreted as intrusive, since typologically they postdated sherds in the contexts above. The trench as a whole seemed to show some chronological development from early Troumassoid, with Caliviny Polychrome, to Troumassoid/Suazoid (Drewett *et al.* 1993: 124). Among the other trenches, earlier pottery was found in the marshy area farthest from the beach, and there was also more early pottery as one moved farther south in the excavated area. Trench 25/25A at the far southeast corner of the excavated area had more sherds than any other and was of interest because of its unusual assemblage, with many thin sherds, and large numbers of decorated sherds including some resembling St. Lucia Zoned Incised and another vessel with pin-head motifs, rare in Barbados (Drewett *et al.* 1993: 117-125).

These early excavations were followed by many years of excavation responding to the development of the Port St. Charles marina, which revealed at least 53 pottery-lined wells/water holes and two wood-lined water holes. For a ceramicist the wells were particularly exciting because they contained many whole, or virtually whole, ves-

sels. Carbon dates (on wood) were AD 695-895 and AD 980-1200 (Drewett 2007: 86, table 21), although these dates seem perhaps late for the style of pottery found. There were individual differences between wells but in general the pottery was similar, of a late (possibly terminal) Saladoid style, with plenty of redware, both grooved and fine-line incised decoration, WOR and Zoned Red, and a high proportion of triangular-thickened and triangular-flanged rims. Barton's (1979[1953]) type K rim predominates. With very few exceptions late indicators like footed griddles and fingermarked decoration are absent. A single fingermarked sherd and probable sherds of a footed griddle were found in PS1, the pottery-lined well dated AD 980-1200; it may be that these were post-depositional. Odd sherds were also found in some of the 1996 Area A potstacks. These include a footed support ring, which is the only one known from Barbados (Harris 2000: 80; figure 41 no. 49), two incense burners, also rare on the island, and some sherds with unusual painted decoration, featuring red on yellow-beige in one stack, and in the 695-895 carbon-dated stack, non-Caliviny red, white and black paint (Drewett 2000: 82-83).

Two wood-lined water holes were also found and dated AD 780-1020 and AD 790-1030. Pottery was found in both of these and, with a thicker sherd profile, little decoration, simple rims and vessel feet, it looks Troumassoid, that in the seaward well seeming somewhat later than the more inland one. Oddly, except for the sherds mentioned above, the pottery in the AD 980-1200 pottery-lined well looks earlier than that in either of these slightly earlier-dated wood-lined wells (Harris 2007a: 58).

It is tempting to suggest that the presence of this quantity of pottery-lined wells reflects a period of drought. The majority seem to have pottery dating from about the same period. This would need to be tied in with climate studies. Drewett (2007: 50) has pointed out that wells could easily become contaminated by debris falling in and would need to be replaced frequently. Pottery-lined wells have been found elsewhere on the island: single wells at Goddards (Hackenberger 1988: 59-60) and South Point (Ronald Taylor personal communication), two at Maxwell (Harris and Hinds 1995) and at least fifteen at Spring Garden (Hinds *et al.* 2000). It was not only water holes which were revealed by the BAS's 1995-1999 excavations. Burials were found but these contexts on the whole had few sherds, with the exception of burial 163, excavated in 1996, which according to the excavator, Maureen Bennell, might have been in an existing well (Drewett 2000: 37-38). Most sherds in this burial were in poor condition, but it had nearest the skeleton, redware sherds broadly similar to those in the wells, and underneath the skeleton, a unique double-curved vessel with elaborate grooving (Harris 2000: 87; figure 44 no. 63). A tooth from the skeleton has dated this burial to AD 210-420, mysteriously early when compared to the ceramics found.

House structures were found as well. On the whole the sherds found in the post-holes were neither numerous enough, nor distinctive enough, to assign the structures to a certain period; however, the structure found in 1996 seemed slightly earlier (possibly Saladoid) than those found in 1998-99 (probably Troumassoid). A historic structure was also found (Drewett 2007: 81-82).

There were also a number of special features, including pits which contained special deposits. In one of these, among Saladoid sherds, was a complete (though broken) shallow canoe-shaped vessel of a creamy pink slipped ware. Another pit contained several whole pots including an incense burner, a beautiful elliptical shallow dish

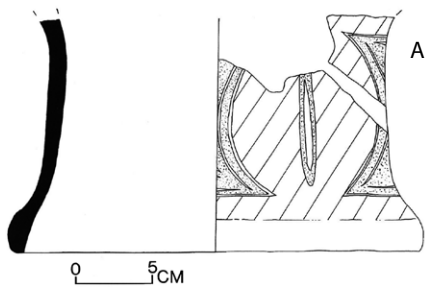
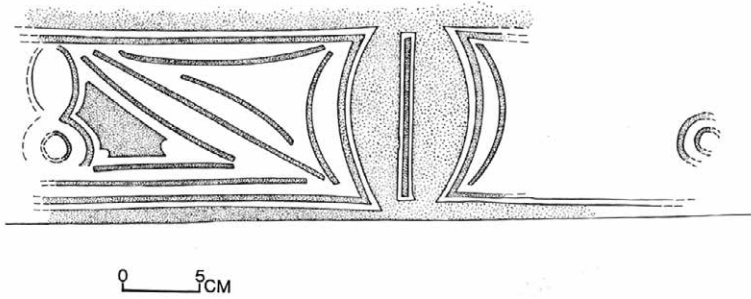
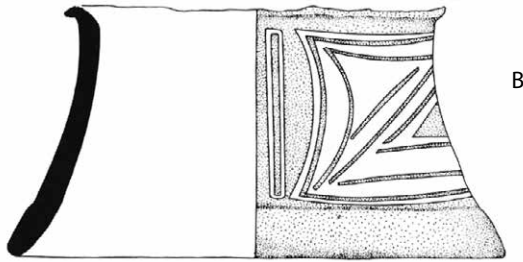


Figure 3.6. Pottery from Heywoods. A: drawn by M. Bennell and reproduced with permission from Drewett (2000: figure 43, no. 57). Represented colors include white (dotted areas), pink (shaded areas) and red (white areas); B: drawn by I. Duthie and reproduced with permission from Drewett (2000: figure 46, no. 70).



(Harris 2000: figure 47) and at the bottom, an inturned bowl containing blue clay. The majority of the sherds in this pit looked Saladoid. Drewett has interpreted these deposits as possible places of ritual activity, protecting the extraction of fresh water from underground sources (Drewett 2000: 169). Heywoods was obviously occupied for a long period, from preceramic times through Early Ceramic (represented possibly by early Saladoid and definitely by late Saladoid ceramics) and Late Ceramic periods (evidenced by Troumassoid and Troumassoid/Suazoid pottery). The excavated areas suggest that earlier occupations tended to be inland, while later ones were located closer to the sea (Drewett *et al.* 1993: 125; Harris 2007b: 46).

The quantity of sherds recovered at Little Welches is small compared to other sites: 2838 from the BAS excavations and 370 collected and excavated at different times by Dr. Hinds. The majority of all these sherds could be classified as modified Saladoid. The BAS excavation showed a certain amount of chronological development between contexts, with sherds from Context 3 distinctly thinner than those in the two upper contexts, and with a higher proportion of triangular-flanged rims. Barton's (1979[1953]) type K is the most common form. Relatively little paint of any sort could be distinguished at this site, but grooving and fine-line incision were both present. Context 3 stood out by having both monkey-tail and pin-head motifs among the



grooved sherds, and one cross-hatched sherd in this context was so finely executed as to make its diagnosis a query ZIC sherd. Another sherd was definitely a BIR. In the upper two contexts sherds were slightly thicker and there was more cream slip; most sherds were of Saladoid types but some had Troumassoid characteristics including two with possible Caliviny Polychrome decoration (Drewett and Harris 1996/1997: 64-66). Dr. Hinds' collected sherds were also mixed but primarily Saladoid. Most decoration was grooving and many sherds were from a grooved redware vessel. He also collected a single fingermarked sherd and he excavated 20 sherds from an historic St. Lucia coal pot (Drewett and Harris 1996/1997: 64-66).

At Maxwell, 730 meters to the west of Little Welches, BAS excavations followed the discovery by Dr. Hinds of two pottery-lined wells. These were exposed after Hurricane Hugo in 1989 (Harris and Hinds 1995). When similar wells were later discovered at Heywoods, it was apparent that the Maxwell wells were of similar construction and contained pots of a similar style, that is, late Saladoid. Most of the vessels were concave-sided or bell-shaped, though sherds from other forms were found and the vessel on the top of Maxwell I was an inturned spouted form. They all lacked their bases. It was notable that a large proportion of the vessels were decorated with grooving and WOR (figure 3.3A-C) and a crescent-shaped motif recurs (Harris and Hinds 1995: 521). It is tempting to suppose that this motif is connected with the moon and tide.

The BAS excavation of 6 test trenches to the west of the wells followed in 1991, with the purpose of seeing whether there was evidence of occupation close to the wells. Four of these produced pre-colonial material: shells including *Lobatus gigas* and *Cittarium pica*, and a small number of sherds. The pottery was mostly late Saladoid but the pit farthest away from the wells had some evidence of early Troumassoid sherds. Dr. Hinds also collected a few miscellaneous sherds inland of the wells which were more varied in type than the well sherds, though compatible with the late Saladoid or early Troumassoid pottery of the test trenches (Harris and Hinds 1995: 516).

It has been mentioned that there is a collection of sherds from Maxwell in the Museum of Archaeology and Anthropology at Cambridge. These, collected by Col. H.W. Feilden in the nineteenth century, have no excavation details but according to Feilden the site was a 'kitchen midden' (Harris and Hinds 1995: 517-518). The sherds Feilden chose to bring to Cambridge are fairly thin, many decorated. Decoration includes WOR, zoned red, grooving including both monkey-tail and pin-head motifs, Barbados Incised Rim, a possible Caliviny Polychrome sherd and a punctate sherd. Most of the decorated sherds could be categorized as late Saladoid, with the exception of the last two or three. However, there are two shouldered feet which are clearly from a later period. Other items in the collection include bone fragments, shell tools, a shell pendant, two stone axe fragments, and a shell amulet carved in the shape of a fish. This amulet is listed as 'Maxwell Estate' rather than 'Maxwell Kitchen Midden' like the others (Museum of Archaeology and Anthropology catalogue cards Z.2660-2669, Z.39987, Z.40032-40035). The Shilstone vessel from Maxwell which is in the BMHS seems from the drawing on its catalogue card to be similar in shape to those from Dr. Hinds' pottery-lined wells, and indeed is described as having been part of a stack of five vessels one inside the other (BMHS Catalogue Card A/493).

In 2002 and 2003, small test pits were taken out by the BAS at Greenland (Drewett 2007). Expanding on earlier investigations by Steve Hackenberger when a new road



Figure 3.7. Sherds from Three Houses (Bruce Jardine, reproduced with permission). Collection Bruce Jardine; scale unknown.

was cut (Hackenberger 1987), the BAS team excavated test units in two areas, both clearly disturbed. North of the brick works (Drewett 2007: 75, figure 47) most of the 93 sherds found were Troumassoid or Suazoid; to the south of the road, what the team believed to be redeposited material from the original 1960s bulldozing included 1552 sherds, mostly Troumassoid, Suazoid or indeterminate but including 73 sherds diagnosed as Saladoid (Drewett 2007: 73-76). Although the author did not see the material from these excavations, the findings are in keeping with sherds from Greenland seen at the BMHS and at Harrison's Cave (Harris 1991: 49-51).

The BAS also made surface collections of materials at sites that were not excavated. These include Pico Teneriffe, Cuckold, Chandler Bay, and Cluffs A, where definite Saladoid materials were identified, and Laycock Bay, Indian Mound, and Sandy Hill, where possible Saladoid remains were collected (Drewett 1991: 45-49). Over the years the author has also been able to examine pottery from several miscellaneous surface and excavated collections from Belleville, Fontabelle and Brandons/Indian River/Spring Garden.

At Belleville (now part of Bridgetown), the Ryburn family collected 45 sherds from the surface at their house. After learning of this the BAS also made a surface collection and excavated a 1x1 m test trench, though this produced very little pre-colonial material (two sherds and one shell). The pottery from both surface collections is recognizable as Troumassoid/Suazoid, including cleat-shaped lugs, shouldered feet, fingermarked rims and footed griddles (Drewett and Harris 1993: 106-108). Mr. Bruce Jardine also made a collection from building sites at Fontabelle. The collection consisted of 1225 sherds in total, with 145 sherds classified as Saladoid coming from lower levels. The sites were clearly occupied over a long period. The earliest time was represented by a single ZIC sherd, other Saladoid sherds including many fine WOR and/or grooved sherds, but the bulk of the collection has Troumassoid characteristics such as cream slip, a medium to thick profile, Caliviny Polychrome and fingermarked decoration. Almost all the diagnostic griddle sherds were flat. Finds also included spindle whorls, incense burners, and two possible nostril vessels. Historic sherds were also found, so the site did not stop being occupied after Europeans arrived (Harris 1996/1997).

In 1999 bulldozing started prior to building work at the southern end of Spring Garden Highway. The site adjoined the known sites of Indian River and Brandons. Surface collections were made by Richard Goddard and others, and in due course the bulldozer revealed circles of pottery similar to the pottery-lined wells found at Heywoods. The first two were excavated by Kevin Farmer and Ronald Hinds and subsequently a total of fifteen were removed (Hinds *et al.* 2000). Only some of the pottery has been analyzed, partly for lack of time and partly because much of it was in poor condition, either soggy and crumbly, or concreted together (Hinds *et al.* 2000: 78-81). Only the first two stacks were seen by the author, and in these stacks there were few decorated sherds. Stack 1 was badly concreted, but 94 sherds and four pots were analyzed. Many sherds were either redware, or the soft-feeling gray which has been interpreted as eroded redware (Harris and Hinds 1995: 514); sherds were on the thin side of medium. About half the rims were simple and the other half were mostly divided between S-shaped and triangular-thickened; forms were all bowls, four bell-shaped and one possibly oval. The most interesting find in this stack was a deep Barbados Incised Rim bowl in possible eroded redware; other BIR vessels on the island have not been identified to be redware and this is rather surprising, if true. It also gives this type a context which is dateable at least by associated pottery. The only other decorated sherd seen by the author was grooved in a frog-leg pattern.

Stack 2 was very crumbly but the author saw three identifiable vessels and more than 126 other sherds in good enough condition to be analyzed. Many were of eroded gray ware and one had traces of red slip; sherds seemed a little thicker than in Stack 1. Rims again were mostly simple, S-shaped or triangular-thickened. Forms were all bowls (many bell-shaped or concave-walled) but there was one incense burner, and Dr. Hinds recon-

structed a nearly whole concave-walled vessel decorated with grooves and WOR paint including pink areas, blackened on the inside (Hinds *et al.* 2000: figure 2).

When the remainder of the stacks were removed (Hinds *et al.* 2000), although most pots were undecorated, many fine WOR sherds were found (figure 3.4). In many cases the decorated vessels, grooved and painted, were concave-sided vessels similar in shape to those found in pottery-lined wells elsewhere on the island and also on Mustique, St. Vincent and Martinique. Many decorative patterns were also similar to pots from elsewhere. Other forms found were at least two incense burners and several pot rests; the one illustrated (figure 3.4) came from near the base of a stack. One classic ZIC rim was found and there was another vessel, an open bowl with a narrow base, which had cross-hatched decoration on the outside (from the illustration, Hinds *et al.* 2000: figure 4a, the pattern of hatching looks neither typically ZIC nor typically BIR).

Surface collections were made at several interesting sites as yet unexcavated. Of these the most intriguing was Three Houses. In 1986, the author picked up a few pieces of largely undistinguished and abraded pottery, noting only a triangular-flanged rim, a possibly grooved sherd, and a sherd of a footed griddle. Later surface collections by the author and by Steven Hackenberger produced a collection of 24 sherds (Harris 1991: 49), again rather undistinguished but including three round rims, one or two Type K rims and two possible triangular-flanged rims. There was a sherd of a footed griddle, and a sherd of possible redware, as well as several sherds showing traces of cream slip. The thickness distribution was medium to thick (Harris 1991: 49). A more spectacular collection, of shell, stone and ceramics, was made by Bruce Jardine after a flood in 1995. About 50 sherds were seen by the author, including mostly simple tapered, round or flat rims, but also some Type K rims, at least one Erin-type triangular-flanged rim, and two internally thickened rims with 'Giant Interior Incised' decoration (figure 3.5). All forms were bowls, and there were also a number of flat bases. The sherds in this collection were quite thin, most under 10 mm. thick, and included some redware sherds painted with Zoned Red or WOR. The main sort of decoration was grooving (with or without paint). Only one sherd showed paint traces which could possibly have been Caliviny Polychrome, and another had a little fine punctate decoration (figure 3.5). There were four sherds of one or more Barbados Incised Rim vessels. Mr. Jardine's collection seems to contain earlier pottery than the ones made earlier by Hackenberger and the author. During a brief visit to Indian Pond in 2001 the author was shown sherds including vessel legs, adornos and a fingermarked rim, all clearly Suazoid except for a perforated disc of harder ware, red on one side. These had been found with shell tools.

## Discussion

With its geographical position off to the side of the main chain of the Lesser Antilles, the pottery of Barbados might be expected to be somewhat different from the other islands. Differences noted are in paste (see Lawrence *et al.* 2016), form and decoration. The sand and calcareous temper described by Barton (1979[1953]) seems to coincide with fabric types found by Degryse *et al.* (in prep). This does not coincide with the more recent analysis made on 23 sherds by Lawrence *et al.* (2016) which indeed found sand of different sizes but does not mention either shell or grog. The BAS's ini-

tial microscopic analysis by Caroline Cartwright and the author (Drewett *et al.* 1987: 51-52) found no consistent variability by period or site, though we distinguished a 'brown-sugar' paste with inclusions of small to medium sub-rounded quartz particles, and a grey-brown paste with abundant, evenly sized and shaped quartz inclusions. At first it was believed that the 'brown-sugar' paste was Saladoid and the other Suazoid, but subsequent investigations did not bear this out. Other inclusions found, when thin-section investigations were carried out by Cartwright (Harris 1991: 43-45), were iron minerals, calcareous material (possibly coral), and rare grog, charcoal, vegetable matter and possible fossil mollusks. Later thin-section study of 23 sherds by Lys Drewett (Drewett and Fitzpatrick 2000: 141-144) showed the clay from most excavated sites to have come from the Scotland district, with quartz inclusions. The exception was Silver Sands, where calcareous inclusions show that local marsh clay was used. Going by paste, it would seem that Barbados pottery was manufactured locally; however, over the course of several seasons the author did notice just a few sherds with black inclusions which are probably volcanic minerals. Unfortunately, these sherds were not separated out for microscopic analysis. The inclusions might be the result of ash deposited in the wind, or just possibly evidence of trade, although no specific decorative difference was noticed in these sherds. It is also suggested by Pavia *et al.* (2013) that inclusions in some Carriacou sherds may have come from Barbados, which would imply contact between those islands.

With regard to form, Barbados has most forms in common with other islands, though relatively few incense burners were identified here, and ring-form pot stands, often highly decorated (figure 3.6A), are possibly more common than in other islands. To what extent common decorative motifs or techniques provide evidence of contact with other islands, is problematic. Similar techniques of decoration are found in other islands, particularly with respect to Saladoid and early Troumassoid pottery. When looking at the Suazoid pottery found in Barbados, with fingertip and fingernail marking used to make elaborate patterns (figures 3.1-3.2), the island seems to have been particularly florescent during the Late Ceramic Age.

Saladoid WOR grooved and painted sherds also show recurrent motifs which may be special to Barbados, such as painted crescents (figure 3.3) and grooved patterns representing what may be female genitalia (figures 3.6A-3.6B). Monkey-tail and frog-leg motifs are used in common with other Lesser Antillean islands, and Interior Incised (originally 'Grande Anse Interior Incised' as defined for Grenada) is shared with several islands (see Boomert 1987, Bullen 1968). A surface treatment which may or may not be purposeful decoration is patterned clouding. Random fire-clouding is not unusual on sherds, but there are a few in Barbados, particularly at Heywoods, where oblong or circular shapes seem to have been produced deliberately. The author has not seen this reported for other islands. One puzzle is the presence of some unusual sherds at Heywoods, with red, black and white polychrome somewhat reminiscent of St. Lucia Zoned Incised. St. Lucia Zoned Incised is otherwise mentioned for the island only by Bullen (1968) as 'rare' in Chancery Lane. Could this signify that there was a brief influx of people from the neighboring island? An intriguing problem is posed by the cross-hatched decorative technique called Barbados Incised Rim (BIR); (figure 3.7). Bullen (1968: 81) indicates that sherds were found in Barbados and St. Lucia exhibiting cross-hatched incision, but that unlike the ZIC in Grenada, BIR is crudely exe-

cuted and appears on the upper surfaces of cazuela-shaped vessels, while ZIC usually appears on the interior sides of flaring rims. The author found that on a small sherd it is not always possible to tell the difference between BIR and ZIC. Bullen had found BIR at Chancery Lane, and cites Haag as having found some at Grande Anse (St. Lucia). Because of its position in levels above the greatest Pearls concentrations, Bullen believed BIR to be from a later period. It is limited to Barbados, St. Lucia and St. Vincent. Barbados Incised Rim is rare: only about 75 BIR sherds (among a total sherd count of nearly 100,000) were seen during the course of the BAS study. It may be possible to assign them to a period according to the contexts in which they were found, and associated material. Sites at which BIR was recorded were Hillcrest (the largest number were recorded from here, most from the area excavation D); Heywoods, Silver Sands, Chancery Lane, Little Welches, Fontabelle, Brandons, and Three Houses. At Hillcrest (up to 34 examples), most came from a transitional context between Saladoid and early Troumassoid; there were, however, cross-hatched sherds in most of the contexts though definite BIR sherds did not appear in the lowest five. All of the cross-hatching in area D is placed on the outside of the vessel.

At Silver Sands, no BIR was found in the 1987-88 excavation. The 1995 excavation produced up to 10 examples, from probably disturbed contexts. Most of the BIR sherds (5) derived from the lowest two contexts, 18 and 19, and were on medium-thickness bowls, one of redware. Both these contexts also contained a small number of fingermarked sherds, and rather more Caliviny Polychrome. Context 12, where the sherds were very eroded and which had numerous fingermarked sherds, had a single example, again on a medium-thick bowl. The large Context 9 above this was very mixed, including a majority of fingermarked sherds, some Caliviny Polychrome and a single BIR sherd on a medium-thick smooth-surfaced vessel. The only other BIR sherds appeared in another large and very mixed context, Context 2, which had up to 3 BIR sherds plus another possibly cross-hatched sherd, as well as grooving, Caliviny Polychrome and fingermarking.

Among all the many sherds examined over a dozen years of excavation at Heywoods only six examples of BIR were identified. Almost all were from mixed, disturbed or uncertain contexts. Among the pot and wood-lined wells, one was found in Context 6 (mostly Saladoid in character), two in Context 52 and Context 52-54 (probably Troumassoid, but disturbed), a single one in the lowest context of Beach Trench 11 (which also has Caliviny Polychrome and fingermarked sherds), and two in Area B of the 1997 excavation, one of them from machined-off material and the other from cleaning of sections in an area which looked slightly earlier than the rest. So Heywoods does not provide any clear chronological attribution. BIR sherds at Chancery Lane were difficult to assign to a particular period. There were examples in Trench 3 between 10 and 30 cm including 2 examples in the occupation layer, Context 5 (though one of these was possibly ZIC). In Context 2, the lower context of Trench 2, there were 6 examples, one on redware with deeper than usual incisions. Trench 1 had mostly Troumassoid-Suazoid material, and had frequent BIR from 10 cm. on down, one cut into fawn slip. There was none in any of the burials.

Six BIR sherds appear in the Little Welches records, plus two cross-hatched sherds thought to be ZIC. The excavated BIR sherds appear in layers where sherds are thin and there are a large proportion of triangular-thickened or flanged rims, so the impli-

cation is that they are Saladoid rather than Troumassoid. However, due to mixing of the layers it is impossible to be certain of this. The sherds examined from Fontabelle were surface-collected by Bruce Jardine rather than excavated, so their dating is uncertain. Many, however, came from the Tropical Batteries site between 1 and 2.2 m. from the surface. There were many Saladoid sherds at the lower levels but Suazoid sherds appeared at all depths. Among those seen by the author there were 5 BIR, a ZIC, and a cross-hatched sherd which could not clearly be assigned to one or the other of these categories. At Brandons, as has been mentioned, about a third of a BIR inturned bowl, probably of redware, was found in a pot-lined well. On the assumption that this well is from approximately the same period as the Heywoods pot-lined wells, it would place BIR in the late modified Saladoid period. Other cross-hatched sherds found in the Brandons stacks, however, resemble the earlier classic ZIC.

BIR sherds excavated by the Bullens at South Point in 1966 came from contexts showing mostly Simon (modified Saladoid) wares and included at least one on redware. Another BIR sherd was recovered by them at Sam Lord's Castle, below the mainly Suazoid layers but impossible to assign to either Caliviny or Saladoid. A single BIR sherd from Exmouth-Indian River was also seen in the BMHS collection. It seems likely that BIR cross-hatching is a continuation of the theme originally expressed in ZIC. It is a rare type but clearly from an early period, despite its usual placing on medium thick inturned bowls.

## Conclusions

Although a certain number of early ('insular') Saladoid sherds have been discovered on Barbados, they are few in comparison to later sherds. Bullen found early Saladoid sherds at Chancery Lane and at South Point (Bullen and Bullen 1968); the BAS found them at several sites including Chancery Lane and Hillcrest (Drewett 1991: 53; 81). Unless pottery of this early type survived for many years, it seems that Barbados was occupied early in the Saladoid period, and Bullen's date of 380 AD at Chancery Lane and Steve Hackenberger's (surprisingly early) dates of 0 and 285 BC at Goddards, tend to confirm this. Pottery of the slightly later ('modified') Saladoid is much more common and is found at all the BAS excavated sites with the possible exception of Silver Sands (though there were grooved sherds in the bottom contexts). Definite Saladoid materials were also collected from the surface at Pico Teneriffe, Cuckold (one sherd), Chandler Bay, and Cluffs A, and possible Saladoid remains were identified at Laycock Bay, Indian Mound, and Sandy Hill. The vertical distribution of Caliviny Polychrome tends to reinforce Bullen's theory of a 'Calivinoid' series predating the Suazoid; however other characteristics of the pottery are more continuous, with forms and rim types showing little difference between 'Calivinoid' and 'Suazoid', though surface treatment (slip versus scratching) and decoration (polychrome versus fingermarking) are different. Both these types of pottery are now subsumed in the term 'Troumassoid'. Troumassoid pottery is found at almost all of the sites reported and it must be that the island was well inhabited from about 650 AD. Silver Sands seems from its pottery to be a late site and has carbon dates of AD 950 to 1300.

Barbados Incised Rim, a striking type, is hard to date. When, rarely, it is found in context, it is associated with Modified Saladoid material, and in particular its

appearance in a pottery well at Brandons implies that it is contemporaneous with other pottery-lined wells. The pottery-lined wells, where dated, range from AD 695 to AD 1200. Exceptions are Goddards and a single burial at Heywoods, whose early dates remain to be explained. The original, intuitively persuasive belief that Suazoid pottery was the pottery of the Caribs, who according to historic sources had invaded the Lesser Antilles, is no longer accepted; Island Carib pottery is now believed to be of Cayoid type (Boomert 1987, 2011; Hofman and Hoogland 2012). So far this has not been identified on Barbados, which seems to confirm early colonial reports describing the island as uninhabited at the time Europeans arrived (cf. Drewett 1991: 14).

## Acknowledgements

Much of the work of the BAS has been done with the help of Dr. Ronald Hinds, and excavations at Little Welches (the site of Dr. Hinds' surgery) and at Maxwell have followed on from excavations by Dr. Hinds. I am particularly indebted to him and his wife Heather for hosting me on many occasions. Thanks for hospitality are also due to Margaret and the late Andrew Tainsh, to Alissandra, William and the late Hyacinth Cummins, to Margaret Deutsch and Richard Goddard, and to Charles and Linda Herbert. Financial support over many years came from the Cambridge University Foreign Travel Fund, the Bartle Frere Fund, the Smuts Memorial Fund, the Cambridge University Museum Crowther-Beynon Fund, the MacDonald Institute for Archaeological Research, the British Academy and the Society of Antiquaries.

## References

- Barton, G.  
1979 *The Prehistory of Barbados*. The Layne Company, Halifax [reprint from first edition 1953].
- Boomert, A.  
1987 Notes on Barbados prehistory. *Journal of the Barbados Museum and Historical Society* 38/1: 8-43.  
2011 From Cayo to Kalinago: aspects of island Carib archaeology. In *Communities in Contact. Essays in archaeology, ethnohistory and ethnography of the Amerindian circum-Caribbean*, edited by C. Hofman, C. and A. Van Duijvenbode, pp. 291-306. Sidestone Press, Leiden.
- Bullen, R.  
1962 *Ceramic periods of St. Thomas and St. John islands, Virgin Islands*. The William L. Bryant Foundation, American Studies, Report 4.  
1964 *The Archaeology of Grenada, West Indies*. Contributions of the Florida State Museum, Social Sciences, no. 11, University of Florida, Gainesville.  
1968 Some Arawak ceramic variations between Grenada, Barbados, St. Lucia, and Eastern Trinidad. In *Proceedings of the Second International Congress for the Study of Pre-Columbian Cultures in the Lesser Antilles*, pp. 81-86. Barbados.



Bullen, R. and A. Bullen.

1968 *Barbados Archaeology: 1966. Proceedings of the Second International Congress for the Study of Pre-Columbian Cultures in the Lesser Antilles*, pp. 134-144. Barbados.

1972 *Archaeological Investigations on St. Vincent and the Grenadines, West Indies*. The William L. Bryant Foundation, American Studies 8, Orlando, California.

De Waal, M.

In prep. a. Amerindian remains at Golden Mile, Speightstown, Barbados.

In prep. b. Little Bay, St. Lucy, Boscobelle Bay, St. Andrew, and Skeetes Bay Plateau, St. Philip, Barbados. Pre-colonial settlement in eroding coastal landscapes.

In prep. c. Pre-colonial settlement at Three Houses, St. Philip, Barbados.

De Waal, M. and J. Lesparre.

2018 Investigating a prehistoric Amerindian village in Three Houses, Barbados (2009, 2015). Information panel for the permanent archaeological exhibition at Golden Grove, Barbados.

Degryse, P., C. Hofman, C., B. Neyt, U. Brandes and G. Davies.

In prep. Networks of clay: Provenance of pre-colonial and early colonial Lesser Antillean pottery. To be submitted to the *Journal of Archaeological Science*.

Drewett, P.

1991 *Prehistoric Barbados*. Archetype Publications, London.

2000 *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*. Archetype Publications, London.

2001 Human and landscape transformation at Port St. Charles, Barbados. *Proceedings of the Eighteenth Congress of the International Association for Caribbean Archaeology*, True Blue, Grenada 1999, pp. 110-118. AIAC, Guadeloupe.

2007 *Above Sweet Waters. Cultural and Natural Change at Port St. Charles, Barbados, ca. 1750 BC – AD 1850*. Archetype Publications, London.

Drewett, L. and S. Fitzpatrick.

2000 Barbados ceramics: scientific analysis. In *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 141-146. Archetype Publications, London.

Drewett, P. and M. Harris.

1987 The archaeological survey of Barbados: 1985-1987. *Proceedings of the Twelfth Congress of the International Association for Caribbean Archaeology, Cayenne, July-August 1987*, edited by L. Sickler Robinson, pp.175-202. AIAC, Martinique.

1996/1997. Excavations at the prehistoric sites at Silver Sands, Little Welches and Heywoods, 1995. A Preliminary Report. *Journal of the Barbados Museum and Historical Society* 43: 59-68.

Drewett, P., with a contribution from M. Harris.

1990 Archaeological survey of Barbados, fourth interim report. *Journal of the Barbados Museum and Historical Society* 38/4: 365-375.

1993 Further contributions on Barbados, including the first evidence for Preceramic Peoples. *Journal of the Barbados Museum and Historical Society* 41: 91-112.

- Drewett, P. with contributions from M. Harris and C. Cartwright.  
 1987 Archaeological survey of Barbados, first interim report. *Journal of the Barbados Museum and Historical Society* 38/1: 44-80.
- Drewett, P. with contributions from M. Harris, C. Cartwright and D. Rudling.  
 1988 Archaeological survey of Barbados. *Journal of the Barbados Museum and Historical Society* 38/2: 196-204.
- 1989 Archaeological survey of Barbados. *Journal of the Barbados Museum and Historical Society* 38/3: 338-352.
- Drewett, P. with contributions from M. Harris and Q. Kaye.  
 1996/1997. Archaeological survey of Barbados. An interim report. *Journal of the Barbados Museum and Historical Society* 43: 102-114.
- Drewett, P., M. Harris, L. Newsom and E. Wing.  
 1993 Excavations at Heywoods, Barbados, and the economic basis of the Suazoid Period in the Lesser Antilles. *Proceedings of the Prehistoric Society* 59: 113-137.
- Hackenberger, S.  
 1987 *Archaeological Investigations, Barbados, West Indies, 1986*. Typescript, Barbados Museum, Bridgetown.
- 1988 An abstract of archaeological investigations by the Barbados Museum, 1986. *Journal of the Barbados Museum and Historical Society* 38/ 2: 155-62.
- Harris, M.  
 1989 The Barbados archaeological survey, 1985-1988: The Pottery. In *Proceedings of the Thirteenth International Congress for Caribbean Archaeology, Curacao, 1989*, edited by E. Ayubi and J. Havisser, pp. 524-540. Reports of the Archaeological-Anthropological Institute of the Netherlands Antilles, no. 9.
- 1991 Material culture I – pottery. In *Prehistoric Barbados*, edited by P. Drewett, pp. 37-100. Archetype Publications, London.
- 1996/1997. Fontabelle pottery. *Journal of the Barbados Museum and Historical Society* 43:96-101.
- 2000 Barbados material culture I. Pottery: typology and style. In *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 51-102. Archetype Publications, London.
- 2001a. The Pottery from Heywoods/Port St. Charles Barbados. In *Proceedings of the Eighteenth International Congress for Caribbean Archaeology, True Blue, St. George, Grenada, 1999*, pp. 243-250. AIAC, Guadeloupe.
- 2001b. Continuing pottery analysis of Heywoods/Port St. Charles, Barbados, a progress report. In *Proceedings of the Nineteenth International Congress for Caribbean Archaeology, Aruba, 2001, vol. 1*, edited by L. Alofs and R. Dijkhoff, pp. 194-203. Publication of the Museo Arqueologico Aruba, vol. 9.
- 2007a. The pots that lined the waterholes. In *Above Sweet Waters. Cultural and Natural Change at Port St. Charles, Barbados, c. 1750 BC-AD 1850*, edited by P. Drewett, pp. 55-65. Archetype Publications, London.

- 2007b. Prehistoric pottery from the houses and their environs: the 1998-99 excavations. In *Above Sweet Waters. Cultural and Natural Change at Port St. Charles, Barbados, c. 1750 BC-AD 1850*, edited by P. Drewett, pp. 33-47. Archetype Publications, London.
- Harris, M. and P. Drewett.  
1995 Saladoid occupation at Hillcrest, Bathsheba, Barbados. In *Proceedings of the Sixteenth International Congress for Caribbean Archaeology Basse Terre, Guadeloupe*, pp. 301-311. AIAC, Guadeloupe.
- Harris, M. and R. Hinds.  
1995 Pottery from Maxwell, Barbados. In *Actas del XV Congreso Internacional de Arqueología de Caribe/Proceedings of the Fifteenth International Congress for Caribbean Archaeology*, edited by R. Alegria and M. Rodriguez, pp. 511-522. Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan, Puerto Rico.
- Hinds, R., M. Bennell and M. Harris.  
1999 Excavations at Heywoods. In *Proceedings of the Seventeenth International Congress for Caribbean Archaeology*, edited by J. Winter, pp. 122-135, Molloy College Rockville Center, New York.
- Hinds, R., Jardine, B. and K. Watson.  
2000 A preliminary report on a Saladoid Site at Spring Garden, Barbados. *Journal of the Barbados Museum and Historical Society* 46: 76-92.
- Hofman, C. and M. Hoogland.  
2012 Caribbean encounters: rescue excavations at the early colonial Carib Site of Argyle, St. Vincent. *Analecta Praehistorica Leidensia* 43/44: 63-76.
- Hulme, P. and N. Whitehead.  
1992 *Wild Majesty: Encounters with Caribs from Columbus to the present Day*. Clarendon Press, Oxford.
- Lawrence, J., K. Marsaglia and S. Fitzpatrick.  
2016 Petrographic analysis of Pre-Columbian pottery from four islands in the Lesser Antilles and implications for inter-island transport and interactions. *Journal of Archaeological Science: Reports* 9: 663-680.
- Pavia, J., K. Marsaglia and S. Fitzpatrick.  
2013 Petrography and provenance of sand temper within ceramic sherds from Carriacou, Southern Grenadines, West Indies. *Geoarchaeology: an International Journal* 28: 450-477.
- Rouse, I.  
1992 *The Tainos: Rise and Decline of the People who Greeted Columbus*. Yale University Press, New Haven.
- Taylor, R.  
1991 *Source Materials on the Archaeology and Prehistory of Barbados. Produced to coincide with the Fourteenth I.A.C.A. Congress, Barbados, July 1991*. Bridgetown, Barbados.



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# Amerindian Cultural Landscapes in Ceramic Age Barbados

*Maaïke S. de Waal*

## **Abstract**

This chapter focuses on Ceramic Age cultural landscapes in Barbados, roughly dated between ca. 400 BC – AD 1500. Cultural landscapes, best understood through the analysis of complete archaeological landscapes, can help understand pre-colonial Amerindian lifeways. As result of the specific data collection history in Barbados, the existing site patterns do not fully represent Amerindian use and the perception of the landscape in pre-colonial times. Earlier established site patterns will be presented and complemented with new insights based on recent fieldwork.

**Keywords:** *Landscape, surveys, site inventories ephemeral sites, inland settlement, caves, Late Ceramic B.*

## **Introduction**

The study of archaeological landscapes helps to understand the ways people in the past used and experienced the landscape and it provides insights into their social, political, economic and symbolic organization (*e.g.* De Waal 2006). A condition for studying archaeological landscapes is the availability of systematic site inventories of well-defined parts of Caribbean islands (*cf.* Brughmans *et al.* 2017). Although some positive exceptions exist (*e.g.* De Waal 2006; Herrera Malatesta 2018), systematic site inventories are rare. The sedimentation histories and typically dense, impenetrable vegetation on most Caribbean islands seriously hinder the creation of efficient inventories through surface survey (De Waal 2006: 12). Although the local relief in Barbados makes surveying less problematic when compared to other islands (especially the volcanic ones) there are still several challenges to overcome, such as dense surface cover, the presence of dunes and the effect of erosion (De Waal this volume chapter 1). These need to be dealt with in order to collect data for representative archaeological site inventories.

## Surveys and archaeological site inventories

The framework for the archaeological site inventory of Barbados was first created in the 1950s by Guy Barton (1979 [first edition 1953]). In *'The Prehistory of Barbados'*, he presented an archaeological map of the island, displaying pre-colonial sites mainly located on the western, north-eastern and southern coasts. A few inland sites are depicted. Barton identified village sites, tool finds, pottery finds and cave sites, without providing cultural-chronological assignments. Barton's map was taken as a starting point for the survey and excavation projects that were carried out in the 1980s and 1990s by teams headed by Peter and Lysbeth Drewett, archaeologists then affiliated to University College London. Their surveys incorporated the coastline of Barbados while surveys of a few known inland sites were also undertaken (Drewett 1991: 4). Augmenting Barton's map with their data, they provided the site map (figure 4.1) which is still used as the official archaeological map by the Barbados Museum and Historical Society (BMHS); (Farmer personal communication 2017). Alistair Bright (2011), studying Amerindian intra- and inter-insular relationships and social organization in the pre-colonial Windward Islands, did not undertake additional surveys or analysis of previously uninvestigated areas but updated Drewett's map by adding information acquired in literature and BMHS collections (figure 4.2).

Drewett (1991: 1-4, 2004: 217-218) and Bright (2011: 97-100) also provided overviews of earlier archaeological investigations in Barbados. Since the Drewetts' fieldwork no systematic survey programmes focusing on the discovery of pre-colonial sites took place in Barbados. New Amerindian sites have been discovered nevertheless. Non-systematic and opportunistic surveys revealed the presence of Amerindian sites inland, on the slopes of Cherry Tree Hill (Smith personal communication 2017), and at the coast (De Waal in prep. a-b). Other new pre-colonial sites were found during excavation of historic locations in Bridgetown (*e.g.* De Waal in prep. c) and Holetown (Smith personal communication 2016). Investigations of other historic sites, including St. Nicholas Abbey, Indian Pond Plantation and Mapps plantation (Smith personal communication 2016) and Trents Plantation (Armstrong personal communication 2017) also revealed materials from previously unknown Amerindian sites located inland. Niall Finneran's Speightstown survey project (2010-present), focusing on the identification of historic archaeological remains, provided new data about three known coastal pre-colonial sites (Finneran personal communication 2017). Last but not least, during geo-archaeological surveys, Lace *et al.* (2013) mapped six Amerindian cave sites of which four were newly identified.

It is important to note that pre-colonial materials from historic locations do not always end up being stored in the BMHS (Smith personal communication 2016) and that museums throughout the world hold collections from Barbados (Harris this volume chapter three). Decentralized storage complicates the creation of island-wide site inventories and the analysis of archaeological landscapes.

## Analyzing archaeological landscapes in Barbados: possibilities and challenges

Analyzing archaeological landscapes in Barbados is not only challenging because investigations have not systematically covered (parts of) the complete island, but also

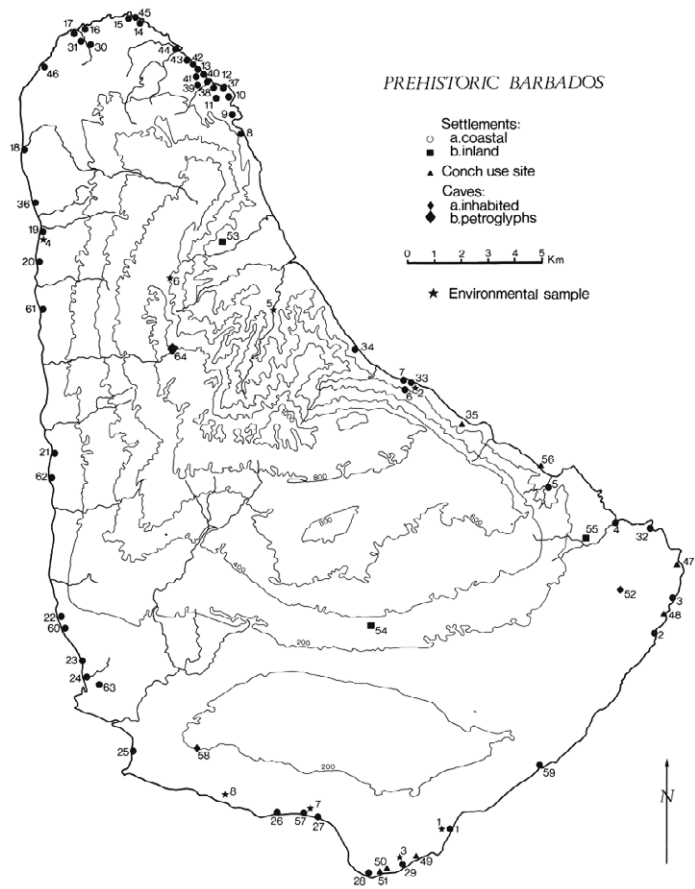


Figure 4.1. Prehistoric Barbados. Distribution of settlement sites, conch use sites, utilized caves and environmental sample locations. Contours in feet (Drewett 1991: figure 7).

because several pre-colonial sites were damaged or destroyed by intensive building activity, tourist industry and sugar cultivation (cf. De Waal 2009 this volume chapter 1, in prep. b, d; Drewett 2007). The slow process of formalizing legislation for the protection of archaeological heritage (Farmer 2011) is not improving this situation. Even unique and well-known pre-colonial sites such as Spring Head Cave, which is the only known Amerindian petroglyph site in Barbados, are not protected and have been vandalized (Evanson 2009).

In addition, relatively few investigations related to pre-colonial heritage have been carried out recently. The general public and academic researchers prefer to focus on colonial heritage, perhaps because the pre-colonial past is more remote in time, not directly linked to Bajan ancestry and difficult to visualize for the general public. This focus has also been reported for other Caribbean islands (e.g. Boehm 2015 for Saba) and it is reflected in BMHS exhibitions as well. However, numerous and valuable data about pre-colonial Barbados are available and the existing site maps can be used to study site patterns and cultural landscapes, as long as they are critically evaluated.

Drewett's 1991 site map has some limitations with respect to site type ascriptions and it has caused confusion in the naming of known archaeological sites (Bright 2011: 98). Barton (1979[1953]: 65) already indicated it to be problematic for identifying sites mentioned by previous authors, as site names changed or disappeared.

# Barbados

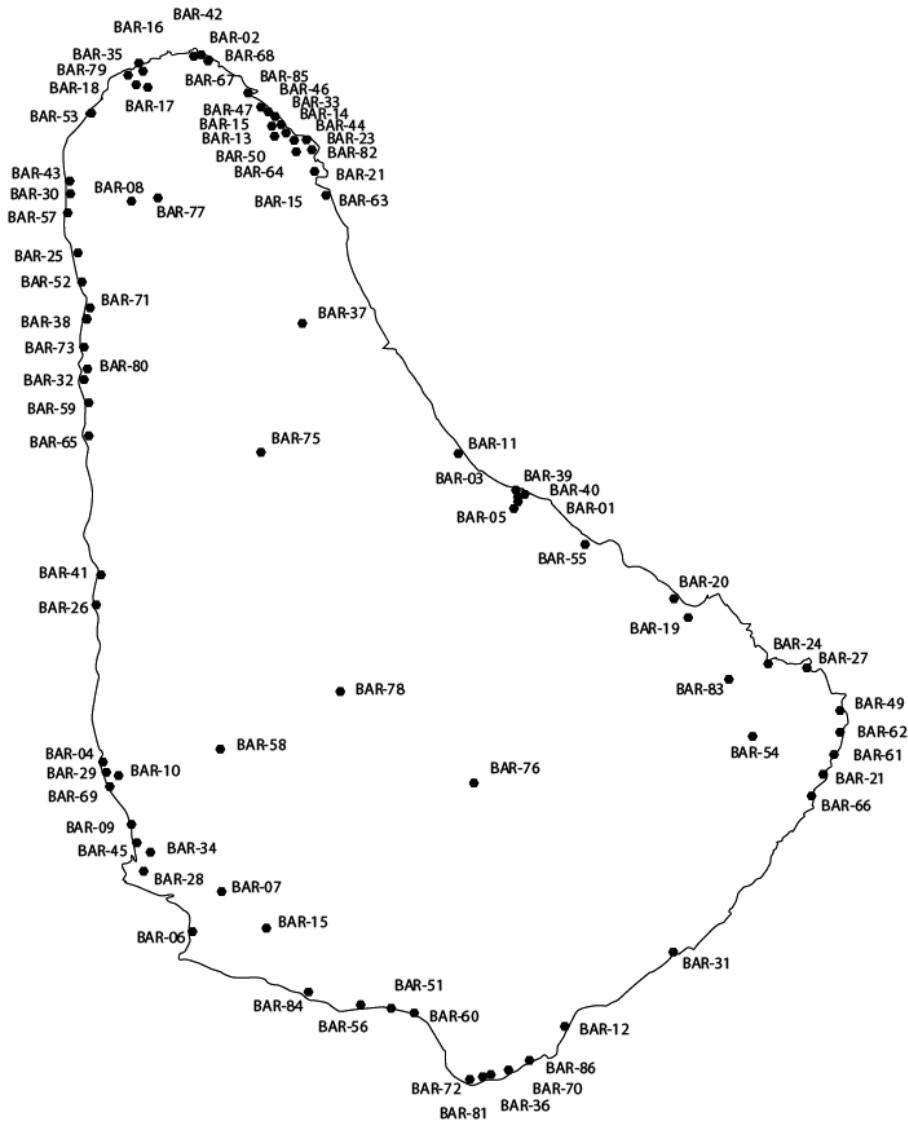


Figure 4.2. Map of archaeological sites on Barbados, identified by site code (Bright 2011: Appendix 1, figure 8).

This confusion continues to today. Also confusing is the schematic topographic detail and the absence of site location features in the maps. Contour lines and the main river courses have been indicated, but it remains complicated to transfer a mapped site location to an aerial photograph. In the field, it is hard to determine if a site is already on the map or represents a previously unknown find location instead. This is particularly problematic in the north-eastern part of the island, which has a very dense site distribution. In addition, sites are indicated by point symbols, which blur informa-



tion on actual locations and extents that could be used for monitoring, management and protection of site conditions and for academic investigation. Mapped sites should be revisited to measure locations by GPS. New measurements are needed anyway as several of Drewett's measurements were referenced to structures that no longer exist, for example in Chancery Lane (Drewett personal communication 2009). The need to resurvey sites was already raised by Farmer (2008), but the required field surveys and GPS positioning of sites have not yet been carried out.

Another challenge is linked to the use of survey material. Many site dates were established on small grab samples of archaeological surface material (Drewett 1991: 4). This often results in multi-component sites being represented by only one phase (De Waal 2006: 22). Harris (1991: 45) added that small collections consisting of just a few sherds were made, thus chronological and functional attributions of the different sites may be difficult to compare to one another. Notwithstanding these limitations, Drewett created an accessible site distribution map. An important added value is that he also provided environmental and cultural contextual information in his site pattern reconstructions. Bright not only presented a site map, but also added an extensive site catalogue, summarizing and critically analyzing work undertaken by earlier researchers (Bright 2011: Appendix 1). Some problems with his map were encountered as well. For example, the north-eastern part of the island has 19 labels for 17 site locations, some site labels have been used twice, some catalogued sites are not on the map and some of the site symbols are labeled with wrong names. In addition, the map has no topographic detail, which complicates localization and identification of sites, in particular in the densely dotted north-eastern part of the island. Although limiting the amount of map detail is unavoidable when presenting an island map in a letter format or even smaller print, the addition of detail maps of densely dotted areas would have helped to identify site location factors.

An important problem relates to the assignment of site functions. Bright (2011: Appendix 1) reinterpreted several settlements in Drewett's map to be pottery scatters on the basis of the nature and number of artifacts recovered. However, the term 'pottery scatter' is not a functional assignment but an indication of how a site shows itself at the surface. In addition, Bright seems to have based himself on site collections in the museum, but these include, as Drewett (1991: 4) describes, grab samples of surface material aimed at dating sites. Such samples logically consist of ceramics. However, some 'pottery scatters' also included other materials as evidenced by descriptions on pottery analysis sheets by Mary Hill Harris. Pico Teneriffe, for example, did not only contain ceramics, including a griddle fragment, but also yielded lithics. One of the most significant mistakes was to reinterpret the settlement of Three Houses to be a pottery scatter (see below). This illustrates the risk in assigning site functions based on museum collections and literature studies, without combining this with investigations in the field. Several other pottery scatters may be expected to represent settlements as well, just as they had been described by Drewett. Even though Bright lists 22 sites more, Drewett's map appears to be the more accurate one to use for locating sites.

A final issue is that some sites cannot be dated. Drewett (1991: 19) listed 13 undated sites (20.3%), whereas Bright's catalogue (2011: Appendix 1) has 31 undated sites (36%). For some sites, including so-called conch use sites, it is not even clear whether they are pre-colonial or colonial. Functional assignments of these undated sites are



Figure 4.3. The location of the Little Bay site on an aerial picture from Google Maps (De Waal 2009).



Figure 4.4. Cemi fragment from Three Houses (Maaïke de Waal).

diverse. They include pottery scatters, individual finds of stone or shell tools, areas of (unidentified) activity, conch use sites and some settlements. Bright (2011) considers this latter classification suspect as for none of these sites there is information on the archaeological materials and one site is on Culpepper island, a small island which could barely house a site. However, given the rate and impact of coastal erosion (see De Waal this volume chapter 1) it is possible that Culpepper island was attached to mainland Barbados in pre-colonial times. A notable but undated site is Spring Head cave, known for its petroglyphs and absence of other Amerindian artifacts, which points to special activity use. Some undated sites are not shown on the existing site maps yet, including Harrison's Cave and Mt. Brevatore Cave, which is also known as Indian Castle Cave (Lace *et al.* 2013: 54, 69), as well as concentrations of Amerindian material in historic locations such as St. Nicholas Abbey, Indian Pond Plantation and Mapps plantation (Smith personal communication 2016). Undated sites are not included in the following overviews of Ceramic Age landscapes in Barbados.

### Definition of Ceramic Age periods

Most chronological assignments of sites in Barbados were based on stylistic and technological aspects of ceramics (Harris 1991, 2000, this volume chapter 3). Only a few C14 dates are available (Bright 2011: Appendix 2: 9-10). In case of surface grab samples, small and not necessarily representative collections of material can be expected,

which limits possibilities for accurate dating and for investigating site contemporaneity (De Waal 2006: 18). Drewett (2000: 167) created site distribution overviews following pottery styles observed in the site assemblages, thus separating Saladoid (preceded by a preceramic period), Troumassoid and Suazoid periods. Bright (2011) presented pre-colonial site patterns per chronological period, distinguishing early and late phases for the Early and Late Ceramic Age respectively. This broad chronological ordering will be used in the following presentation of Ceramic Age Barbados, letters 'A' and 'B' replacing 'early phase' and 'late phase' respectively in order to improve legibility: Early Ceramic A (400 BC-AD 300/400), Early Ceramic B (AD 300/400-700), Late Ceramic A (AD 700-1000) and Late Ceramic B (AD 1000-1500).

### **Diachronic Ceramic Age site patterns by Drewett and Bright**

Drewett (2000: 169; 2004: 219) reported an increase in site numbers through time, observing a development from five large and two small Saladoid settlements (Early Ceramic B) to ca. 15 Troumassoid sites (Late Ceramic A) and finally to a dense site pattern of 43 Suazoid sites (Late Ceramic B). Drewett (2004: 219) explained this dense pattern to be a result of the appearance of a large number of sites in the northern and south-eastern barren parts of the island. He postulated that these unexcavated sites may not have been regular settlements, but possibly were special activity locations aimed at cultivating cotton or producing salt instead (Drewett 2004: 219). Interestingly, in Drewett (1991: 19) the same sites had been listed as settlements. Drewett (2004: 219) further postulated that Late Ceramic Age ('post-Saladoid') habitation probably concentrated close to mangrove edges and marine inlets on the west and south coasts, for example at Heywoods, Silver Sands and Chancery Lane.

Bright (2011: 98-99, appendix 1) sketches a similar development from Early Ceramic A occupation concentrated in Goddards to 18 evenly distributed coastal settlements during the Early Ceramic B. The Late Ceramic A is represented by 23 sites, evenly distributed along the coasts and with a single inland site (Greenland). Late Ceramic B site distribution patterns are denser, also mostly along the coasts with only three inland sites, including two cave sites. Many of the late sites were already occupied during earlier periods, apart from a new concentration of sites in the north-east, which Bright characterized as pottery scatters. The diachronic site pattern developments presented by Drewett and Bright largely mirror those observed in other parts of the Lesser Antilles (cf. De Waal 2006), but two phenomena in the Barbados patterns are striking. First, Early Ceramic A sites are almost absent, which suggests a scenario in which Barbados was hardly inhabited during this period. However, it is also possible that early coastal sites are missing from the record as result of the vulnerability of coastal areas in Barbados (cf. De Waal this volume chapter 1). Second, there is a focus on coastal settlements; this factor can be partially explained by the fact that surveys were largely limited to the coasts, and no systematic inland survey programmes were carried out (Drewett 1991: 4). New data can be added to these patterns, however.

## New insights in Ceramic Age landscapes: settlement sites in the north-eastern part of Barbados

Results from as yet unpublished projects and from projects reported after 2011, involving surveys and test excavations carried out by Armstrong (personal communication 2017), De Waal (in prep. a-c), Lace *et al.* (2013) and Smith (personal communication 2016 and 2017), add new aspects to the above presented site patterns and help to reconstruct more detailed Ceramic Age landscapes. Four aspects will be highlighted: (1) settlement sites in the north-east, (2) inland sites, (3) pre-colonial use of caves and (4) Late Ceramic B developments.

The cluster of sites in the north-eastern part of Barbados (figures 4.1-4.2) tend to attract little attention when Amerindian occupation of the island is discussed. Admittedly, the sites are modest in size and depth, in particular when compared with the large settlement sites on the south and west coasts. Drewett characterized Amerindian occupation at Barbados to consist of:

*'fairly small, economically self-sufficient, communities living around most of the marine inlets on the islands. Offshoots from these settlements grew cotton and processed salt on the more barren northerly and south-eastern parts of the island. These may not have been permanently settled areas'* (Drewett 2004: 221-222).

By doing this, he suggested that the concentration of north-eastern sites represents an ephemeral phenomenon. Bright (2011: Appendix 1), by classifying these sites as pottery scatters, also reduces their role to be merely a side-issue. One of the north-eastern sites is Little Bay (figure 4.3). This site, which was not mentioned by neither Drewett (1991) nor Bright (2011), was mapped by Barton (1979[1953]) and its presence was attested in 2008 (De Waal 2009, in prep. b).

The site is located on a promontory close to a bay that cannot be accessed by canoe from the sea. The bay west of the site was probably used as landing location. Little Bay has many accessible reef flats allowing easy and abundant collection of shell fish. Although the site is in a now barren environment, it was probably covered by brush vegetation in pre-colonial times (cf. De Waal this volume chapter 1). Without vegetation cover, the site suffers from wind erosion. This is well visible in the thinness of the remaining sediment (in some locations only 10 – 20 cm or 4-8 inches), the amount of archaeological materials exposed on the surface, and the heavy fragmentation of the pre-colonial artifacts. The site yields typical settlement refuse, such as ceramics (including griddle fragments), faunal and shell food remains, shell and coral artifacts and a few lithic artifacts were collected from this site. The material assemblage represents pottery that can be dated early in the Late Ceramic B, with thick griddles, legged vessels and finger indented rims. Shellfish and other faunal remains reflect exploitation of the zones closest by the site. These include *Cittarium pica*, *Chiton* sp., *Nerita* sp. and *Purpura patula* and sea urchin, marine crab (possibly stone crab [*Xantidae*] or spider crab [*Majidae*]), and parrot fish (*Scaridae*). The presence of *Lobatus gigas* fragments, used for food and the manufacture of tools, attests that some raw materials were collected further away from the site (De Waal 2009, in prep. b).

Archaeological material was found distributed over an area measuring ca. 100 m (ca. 320 feet) north to south and 140 m (450 feet) east to west. Within this area, sur-

face materials were unequally distributed, ranging from dense to modest distributions, and also displaying areas with only 1 or 2 sherds and areas without artifacts at the surface (De Waal 2009, in prep. b). It is postulated that Little Bay was an Amerindian settlement, and it may be expected that many of the other north-eastern sites are rather similar. If they are, this changes our perspective of the Late Ceramic settlement pattern in Barbados. Instead of an ephemeral area that was used for special activities this may very well have been an area that was intensively inhabited, albeit by relatively small groups for short periods of time in comparison to settlements such as Heywoods, Chancery Lane and Silver Sands. The large number of sites does indicate an intensive occupation activity, reflecting a more dynamic settlement pattern and use of the landscape when compared to the picture outlined by Drewett (2004) and Bright (2011).

### **New insights in Ceramic Age landscapes: inland sites**

A more dynamic picture of Amerindian landscape use is also suggested by the presence of inland sites. Drewett (1991, 2004) and Bright (2011) registered only few inland sites and concluded that Amerindian settlement concentrated on the coasts. According to Dunning *et al.* (2018: 190), this coastal pattern may be explained by the fact that inland sites may have been disturbed as result of ploughing for sugar cultivation and are thus underrepresented in the site record. However, ploughing brings archaeological materials to the surface, which increases the visibility of the sites. A more important reason for the underrepresentation of inland sites, is that archaeologists are not fond of surveying inland areas as result of logistical challenges. Several excavation projects investigating historical inland sites, including Mapps Plantation, St. Nicholas Abbey and Cherry Tree Hill, Indian Pond Plantation (Smith personal communication 2016 and 2017) and Trents Plantation (Armstrong personal communication 2017) have revealed the presence of Amerindian remains at these non-coastal locations as well. They are generally between 2 and 5 km (1.2-3 miles) from the coast, and close to sources of fresh water. Unfortunately, as these remains (including ceramics and shell adzes) have not yet been studied in detail, there is no information about site functions, dimensions and dating. Most of them, however, seem to date from the Late Ceramic Age.

Another site, Three Houses, particularly suggests that inland settlement was much more important in pre-colonial Barbados than previously envisioned (figure 4.1: site 52; De Waal and Lesparre 2018). This site was mapped as an Amerindian settlement by Barton (1979[1953]) and Drewett (1991). Harris and Drewett made a small collection of ceramics from the surface of the site (Harris this volume chapter three), which led Bright (2011) to reinterpret the site to represent a pottery scatter. Located 1.5 km (1 mile) inland from Skeetes Bay, this site was probably very attractive for pre-colonial Amerindian settlement. It has a large stretch of flat, fertile, land which is surrounded by elevated areas, providing strategic look-outs, while having the coast at walking distance and it has a spring, which permanently feeds a small fresh water river (De Waal 2009, in prep. d; De Waal and Lesparre 2018).

Although Drewett and Bright dated the site to be Late Ceramic B ('Suazoid'), collections by archaeology enthusiasts also include earlier materials, belonging to the Early Ceramic B (Harris this volume chapter 3). Surface materials have been discovered over an area of at least 800 x 800 m (2600 by 2600 feet) probably reflecting

different occupation phases that indicate that the settlement shifted over the landscape over time. The long occupation period may explain the large site dimensions (De Waal in prep. d; De Waal and Lesparre 2018). The fact that this area has been used as agricultural land over centuries has led to the disturbance of the uppermost 50 to 75 cm (19-26 inches) of the site and probably also to the horizontal displacement of artifacts, which complicates the study of the site lay-out (personal observation 2009).

In 2009 and 2015 systematic surface surveys were carried out at the site. As the site is largely covered in sugar, bananas and other crops, accessibility and surface visibility are very limited. Therefore, repetitive short campaigns were needed to create a full coverage view of the complete site distribution (De Waal 2009, in prep. d; De Waal and Lesparre 2018). The surveys yielded ceramics, including fragments of griddles and decorated vessels, coral and stone artifacts, and many shell artifacts, including tools, ornaments and *Cemi*-like objects. The huge number of *Lobatus gigas* adzes, axes and pre-forms is striking in particular (De Waal 2009; De Waal and Lesparre 2018). Archaeology enthusiasts also collected finely polished axes of non-local rock from the site, and the 2015 surveys yielded a small *Cemi* fragment, made from basalt which does not occur on Barbados (figure 4.4). In addition, some heavily fragmented human remains were collected from the surface. Shell food remains and faunal remains were also present, but these can also date from colonial and more recent periods (De Waal and Lesparre 2018). Bright's (2011) qualification of Three Houses to be a pottery scatter does no justice to the extensive dimensions of the site, the variety and abundance of archaeological materials represented at the surface and the long occupation span of the location. The artifacts collected are typical for a large permanent inland Amerindian settlement that participated in regional networks of mobility and exchange and played a role in local and maybe regional social, political, economic and symbolic organization (De Waal in prep. d; De Waal and Lesparre 2018).

### **New insights in Ceramic Age landscapes: pre-colonial use of caves**

Not far from Three Houses site, an Amerindian cave site was discovered as well (Lace *et al.* 2013). When looking at the large number of caves in Barbados (De Waal this volume chapter 1) and the important roles caves played in Amerindian life, not only as places for shelter but also for ceremonial activities (De Waal 2006: 58; Kaye this volume chapter 5) the number of pre-colonial cave sites reported by Drewett (1991) and Bright (2011) is surprisingly small. Only four cave sites, including Animal Flower Cave, Clapham Cave, Mapps Cave and Spring Head Cave were mapped. Apart from Spring Head Cave, which was assigned a probable ceremonial function, the cave sites have hardly been mentioned to have played a role in the Amerindian site patterns at all. This is probably not only a result of their small numbers, but also of the fact that their functions and dates are not very clear.

During a series of geo-archaeological surveys Lace *et al.* (2013) mapped six Amerindian cave sites. They discovered four cave sites in St. Philip, including East Point Cave (or Lighthouse Cave), Golden Grove Cave, Site OC and Flowing Stone Cave. The focus of this mapping project was a geological survey, therefore information about discovered pre-colonial materials and context is very limited. Pre-colonial

materials encountered in these caves consist of ceramics, most of which seem to date early in the Late Ceramic B. For Golden Grove Cave, *Lobatus gigas* shells and bone or coral pestles were reported as well (Lace *et al.* 2013). The ceramics encountered seem to reflect daily use pottery. They have simple robust forms and hardly any decorated pieces were found. Interestingly, a possible Amerindian petroglyph has been reported for Site OC (Lace *et al.* 2013: 60) that may hint to a more ceremonial use of this location. However, as the carving is largely superposed by more recent graffiti, this requires further investigation.

Lace *et al.* (2013: 72) concluded that the rarity of known archaeological cave sites is a result of an explorational bias and they emphasized the need for a more complete site inventory in which caves should be an integral component. It is clear that Amerindian cave sites can be found inland as well (*e.g.* Golden Grove Cave) and that different site types existed that have been underrepresented so far, including special activity sites, temporary habitation sites that may have been used for shelter and possible ceremonial sites. At least, their new cave site discoveries indicate that the island was even more intensively used in Late Ceramic B times than already sketched in earlier inventories.

### **New insights in Ceramic Age landscapes: Late Ceramic B developments**

A critical note should be added with regards to the large number of Late Ceramic B sites. This seems to contrast with patterns observed in the northern Lesser Antilles, where a noticeable decrease in sites took place during the Late Ceramic B (Hofman *et al.* 2004). Whereas it is well known that the arrival of Europeans in the Caribbean in 1492 AD dramatically impacted demographic, social, political, economic and religious aspects of the Amerindian societies, it is less known that prior to 1492, important changes occurred as well. On several Caribbean islands population numbers dramatically decreased before Europeans arrived in the region. This poorly understood phenomenon was clearly demonstrated in East-Guadeloupe: between 1000-1200 AD occupation density strongly increased, and between 1200-1492 AD the region became almost deserted. The few remaining people settled at previously unoccupied defensible locations (De Waal 2006).

Interestingly, the southern Lesser Antilles have been reported to have remained densely occupied during late pre-colonial times and the assumed population growth has partly been linked to people migrating from the north (Hofman 2012). Site patterns in Barbados also suggest the presence of more sites during the Late Ceramic B (Bright 2011; Drewett 1991), and it is tempting to suggest a population increase for this island as well. However, two comments must be made. First, although increases in site numbers have often been explained by population growth (see De Waal 2006: 117 for references), these might also have been a result of organizational shifts in society and associated settlement patterns instead (*cf.* De Waal 1999; Drewett 2004; Siegel 1992; Wilson 1991). As survey data from St. Lucia (Hofman *et al.* 2007) and Barbados (Drewett 1991) suggest more but smaller sites, this latter explanation seems more likely than a population growth scenario alone. More sites do not necessarily imply more people. It is possible that some settlements were inhabited more briefly and by smaller groups of people, entailing higher settlement mobility when

compared to earlier periods (cf. De Waal 2006: 117). At this stage, it is not yet clear if the Barbados Late Ceramic B site pattern reflects a population increase or a change in socio-political organization.

Secondly, it should be noted that Bright (2011) dates the late pre-colonial period for the southern islands around AD 1000-1500. The Late Ceramic B period in the northern Lesser Antilles, with its dramatic decrease in site numbers, however, has been roughly dated AD 1200-1500 and the period AD 1000-1200 has been reported to be a period of strong increase in site numbers. In Eastern Guadeloupe, abrupt changes in pottery styles and settlement systems were observed for the period AD 1200/1300-1493 (De Waal 2006). In the northern and southern islands, archaeologists do not seem to identify, discuss and compare the same periods by dating, period duration and definition when it concerns the Late Ceramic B.

Barbados does not seem to possess sites that can be safely dated after AD 1200/1300 (Harris personal communication 2017) and no intact contexts with Amerindian and post-contact materials have been reported (Drewett 2006: 211). In other parts of the region, for example in Eastern Guadeloupe (De Waal 2006) and Saba (Hoogland 1996), post AD 1200/1300 sites were discovered in defensive locations inland. In Barbados, these types of locations are the least investigated areas of the island. Therefore, it is well possible that post AD 1200/1300 sites simply have not been discovered yet, which means that questions about pre-colonial developments and lifeways during the Late Ceramic B in Barbados cannot be answered with the available data.

## Conclusion

This chapter has reflected on the history of archaeological surveying and mapping in Barbados, the effects of the used methods on the representativeness of the collected data and on the resulting challenges and possibilities for studying Amerindian cultural landscapes. Ceramic Age site patterns have been presented as they were reconstructed by Drewett (1991) and Bright (2011). Based on post-2011 research and publications, it has been suggested that these patterns should be adjusted with regards to four topics. These include the presence of settlement sites in the north-eastern part of Barbados, the presence of inland sites, pre-colonial use of caves and Late Ceramic B developments.

A first adjustment is the re-interpretation of special activity sites or so-called pottery scatters in the north-eastern part of the island to represent relatively shortly inhabited settlement sites. Instead of only representing ephemeral phenomena that are not of interest for the reconstruction of Amerindian site patterns and lifeways in Barbados, these small sites appear to indicate more intensive occupation activity and mobility and use of the landscape when compared to earlier periods. A better insight in the use of this part of the landscape and the way it was structured, in turn, may lead to improved insights into changing pre-colonial social-political organization in Barbados during the Late Ceramic Age. The large number of sites alone already justifies further investigation.

It also became clear that inland sites are underrepresented on the maps. The presence of the extensive Three Houses settlement as well as a few cave sites indicate that inland areas have their own histories of Amerindian occupation and use, being



more intensively used than previously suggested. Ideas about central settlement, site hierarchy and social-political organization have been largely determined by research intensity, which in Barbados led to an emphasis on the importance of excavated coastal sites such as Heywoods and Silver Sands. Recent surface investigations have hinted that it is well possible that the relatively unknown inland site of Three Houses played a no less important role in socio-political, economic and ceremonial organization in Barbados and may even had a role of local or even regional importance. The traditional focus on investigating coastal settlement sites has had another effect: only few special activity sites have been discovered in Barbados and little is known about distributions of off-site material. This also limits the understanding of landscape use and perception in pre-colonial times.

Finally, it was noted that it might be deceptive to make statements about Late Ceramic B increases in site numbers and related population increase in the southern Lesser Antilles, and that differences in dating do not allow direct comparisons with the Late Ceramic B situation in the northern Lesser Antilles. It can be concluded that the existing site maps for Barbados are not up-to-date and that using them without critical reflection may well lead to confirmation of existing and biased knowledge. Site inventories must be updated in a systematic manner in order to reconstruct more representative settlement patterns that can be used for site monitoring and protection and which can shed light on the understanding of Ceramic Age cultural landscapes in Barbados.

### **Acknowledgements**

I am very grateful that Alistair Bright generously allowed me to use his Barbados data and the pictures he made in 2006 of the pottery collections in the Barbados Museum and Historical Society. I also would like to thank Bruce Jardine and Peter Date for allowing me to take pictures of their collections. My 2015 fieldwork at Three Houses, of which some results were used in this chapter, was made possible by the Leiden University Byvanck Fund (5603/30-4-15/Byvanck) and *ARGEObgraph* ([www.argeograph.nl](http://www.argeograph.nl)). In addition, I would like to thank Douglas Armstrong, Niall Finneran, Michael Lace and Frederick Smith for sharing (unpublished) pictures and data to be used in this chapter, and Mary Hill Harris for sharing her pottery description forms and her experience and knowledge. Betsy Carlson was so kind as to analyze the faunal remains collected at Little Bay in 2009. Finally, I am very grateful that Niall Finneran offered to correct the original English text. Last but not least, I am very grateful that in 2008 and 2009 Peter and Lys Drewett showed me around on the sites they excavated in Barbados and invited me and my family to enjoy their warm hospitality. We have greatly appreciated their archaeological professionalism, kindness and good humor.

## References

- Barton, G.  
1979 *The Prehistory of Barbados*. The Layne Company, Halifax, CA [reprint from first edition 1953].
- Boehm, H.  
2015 Community engagement, local identity and museums. A review of past heritage initiatives and recent developments on the island of Saba. In *Managing Our Past Into The Future. Archaeological Heritage Management in the Dutch Caribbean*, edited by C. Hofman and J. Haviser, pp. 153-168. Sidestone Press, Leiden.
- Bright, A.  
2011 Blood is thicker than water. Amerindian intra- and inter-insular relationships and social organization in the pre-Colonial Windward Islands. PhD dissertation, Leiden University. Sidestone Press, Leiden.
- Brughmans, T., M. De Waal, C. Hofman, and U. Brandes.  
2017 Exploring transformations in Caribbean indigenous social networks through visibility studies: the case of late pre-colonial landscapes in East-Guadeloupe (French West Indies). *Journal of Archaeological Method and Theory* 25(2):475-519.
- De Waal, M.  
1999 The Pointe des Châteaux survey (1998). A preliminary report. In *Proceedings of the 18th International Congress for Caribbean Archaeology, Part 2*, edited by G. Richard, pp. 268-276. International Association for Caribbean Archaeology, Grenada.  
2006 Pre-Columbian Social Organisation and Interaction Interpreted through the Study of Settlement Patterns. An archaeological case-study of the Pointe des Châteaux, La Désirade and Les Îles de la Petite Terre micro-region, Guadeloupe, F.W.I. PhD dissertation, Leiden University. Digital Printing Partners Utrecht B.V., Houten.  
2009 *From Prehistoric Guadeloupe to Prehistoric Barbados*. Paper presented during the Amerindian Archaeology Week, Barbados Museum and Historical Society, Bridgetown (November 27, 2009).  
In prep. a. Amerindian remains at Golden Mile, Speightstown, Barbados.  
In prep. b. Little Bay, St. Lucy, Boscobelle Bay, St. Andrew, and Skeetes Bay Plateau, St. Philip, Barbados. Pre-colonial settlement in eroding coastal landscapes.  
In prep. c. Pre-colonial special activity use of the Synagogue site (IBM4) location in Bridgetown, Barbados. A ceramic analysis.  
In prep. d. Pre-colonial settlement at Three Houses, St. Philip, Barbados.
- De Waal, M. and J. Lesparre.  
2018 Investigating a prehistoric Amerindian village in Three Houses, Barbados (2009, 2015). Information panel, permanent archaeological exhibit, Golden Grove, Barbados.

- Drewett, P.
- 1991 *Prehistoric Barbados*. Archetype Publications, London.
- 2000 *Prehistoric Settlements in the Caribbean. Fieldwork in Barbados, Tortola and the Cayman Islands*. Archetype Publications, London.
- 2004 Post-Saladoid society on Barbados. In *Late Ceramic Age Societies in the Eastern Caribbean*, edited by A. Delpuech and C. Hofman, pp. 215-230. BAR international Series 1273, Oxford.
- 2006 Dating the Prehistoric Settlement of Barbados. *Journal of the Barbados Museum and Historical Society* 52:202-214.
- 2007 *Above Sweet Waters. Cultural and Natural Change at Port St. Charles, Barbados, ca. 1750 BC – AD 1850*. Archetype Publications, London.
- Dunning, N., J. Jones, D. Pearsall and P. Siegel.
- 2018 Barbados. In *Island Historical Ecology. Socionatural landscapes of the Eastern and Southern Caribbean*, edited by P. Siegel, pp. 182-202. Berghahn Books, New York.
- Evanson, H.
- 2009 Meeting the family down under. In *The Nation, Barbados*, 27 November 2009. Available online at: [www.pressreader.com/barbados/daily-nation-barbados/20091127](http://www.pressreader.com/barbados/daily-nation-barbados/20091127) (accessed 18th February 2019).
- Farmer, K.
- 2008 Forward planning. The utilization of GIS in the management of archaeological resources in Barbados. In *Archaeology and Geomatics*, edited by B. Reid, pp. 74-85. The University of Alabama Press, Tuscaloosa.
- 2011 Barbados. In *Protecting Heritage in the Caribbean*, edited by P. Siegel and E. Righter, pp. 112-124. University of Alabama Press, Tuscaloosa.
- Harris, M.
- 1991 Material culture I- pottery. In *Prehistoric Barbados*, edited by P. Drewett, pp. 37-97. Archetype Publications, London.
- 2000 Barbados material culture I. Pottery: typology and style. In *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 51-102. Archetype Publications, London.
- Herrera Malatesta, E.
- 2018 Una isla, dos mundos: Estudio arqueológico sobre el paisaje indígena de Haytí y su transformación al paisaje colonial de la Española (1200-1500). PhD dissertation, Leiden University.
- Hofman, C.
- 2012 The post-Saladoid in the Lesser Antilles (A.D. 600/800 – 1492). In *The Oxford Handbook of Caribbean Archaeology*, edited by W. Keegan, C. Hofman and R. Rodríguez Ramos, pp. 205-220. Oxford University Press, Oxford.
- Hofman, C., A. Bright, A. Boomert and S. Knippenberg.
- 2007 Island rhythms: The web of social relationships and interaction networks in the pre-Columbian Lesser Antillean Archipelago (400 BC-AD 1492). *Latin American Antiquity* 18/3:243-268.

- Hofman, C., A. Delpuech, M. Hoogland and M. De Waal.  
2004 Late ceramic age survey of the northeastern Islands of the Guadeloupean Archipelago: Grande-Terre, La Désirade and Petite-Terre. In *Late Ceramic Age Societies in the Eastern Caribbean*, edited by A. Delpuech and C. Hofman, pp. 159-181. BAR International Series 1273, Oxford.
- Hoogland, M.  
1996 In search of the Native Population of pre-Columbian Saba (400-1450 A.D.). Part two. Settlements in their natural and social environment. Unpublished PhD dissertation, Leiden University.
- Lace, M., J. Mylroie, P. Kambesis and H. Machel.  
2013 Geoarchaeology of the caves of Barbados, West Indies. *Journal of Caribbean Archaeology* 13:43-79.
- Siegel, P.  
1992 Ideology, Power, and Social Complexity in Prehistoric Puerto Rico. PhD dissertation, State University of New York, Binghamton. Microfilms International, Ann Arbor.
- Wilson, S.  
1991 The Archaeological settlement survey of Nevis: 1984-1988. In *Proceedings of the Thirteenth International Congress for Caribbean Archaeology, Curacao, 1989*, edited by E. Ayubi and J. Havisser, pp. 269-279. Reports of the Archaeological-Anthropological Institute of the Netherlands Antilles, no. 9.

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## Pre-Colonial Barbados: Rituals, Objects and Use of Space

*Quetta Kaye*

### **Abstract**

In the absence of indigenous written records from the pre-colonial Caribbean, questions of how rituals were enacted, which objects were used and the use of space for such activities can be addressed through investigating the documents of the early European colonists and extant archaeological reports and collections. Parallels in form and decoration which can be seen in the symbolic motifs and mythological references duplicated in the different range of objects, would indicate a degree of either intensive communication or cultural cohesion across the islands. The existence of examples of these types of objects in Barbados, as well as in other islands in the Lesser Antilles, with direct links to the material culture recovered in the Greater Antilles, confirms the inter-connectedness of the Amerindian peoples and their belief systems by the diffusion of ideas.

**Keywords:** *Amerindian, pre-colonial, ritual, ceremonial, three-pointer, Cemi, Cohoba.*

### **Introduction**

Amerindian islanders in the pre-colonial Caribbean left no written records, therefore in order to address questions of pre-colonial Amerindian ritual, for example on how objects were used in ritual acts and on symbolic notions and ritual use of space, two routes of investigation are available. First, the documents left by contemporary Europeans who claimed to have observed the rituals, and second, the associated artifacts, often unprovenanced items collected as ‘works of art’ or resulting from surface collections. For those artifacts, contextual information is often absent. This type of information can be added by examining the extant artifactual evidence derived from archaeological reports and collections, such as those made by Peter Drewett (see Harris this volume chapter three for an overview).

With regard to the artifact sample, disparate levels of archaeological activity in Barbados and lack of provenance mean valuable contextual information specific to the artifacts is often not available. Nonetheless both historic documents and artifacts comprise critical, and in some cases the only, information we have on ritual in the pre-colonial Caribbean generally and Barbados in particular.

Unfortunately for students of Caribbean prehistory, in contrast to the Greater Antilles where primary written sources of information deriving from the early chroniclers are available, the nature of the conquest of the Lesser Antilles entailed far less detailed recording. Although the islands of the Lesser Antilles had been encountered in 1493 during Columbus' second voyage (Wilson 1993: 46), no first-hand early accounts exist for Barbados (Drewett 1991: 1). The following paragraphs describe pre-colonial Amerindian rituals, ritual objects, and ritual use of space in Barbados and the wider Caribbean, based on the examination of information from historic documents and pre-colonial artifacts.

## Rituals

Anthropologists recognize that in non-literate societies oral histories can, within a relatively short period, evolve and be encoded into legend and thence into myth (Rappaport 1999: 233). Mythological history generally establishes the beginning of time, giving form and order to the world's origin, and to the creation of supernatural beings – the mythical ancestors. Ritual provides the route for communication between various worlds. Amerindian Caribbean myths as recorded by the European colonists in the Greater Antilles conform to this established pattern in dealing largely with the origin of humans and reflecting human dependency on, or vulnerability to, their environment. It is from these myths, too, that we learn of the islanders' cosmology, the significance of their cultural heroes and their rites of passage, their origin myths, sexual initiation and, with restricted human access to control of these animated elements, the acquisition of interpretative powers by chiefs or shamans using the ritual of drug-taking. The dreams and hallucinogenic visions obtained through the ingested psychoactive *Coboba* were described as intrinsic to many of their ceremonies (Arrom 1997: 68-80; Oliver 1997: 140-153; Oliver 2000: 196-219; Stevens-Arroyo 1988).

Ceremonials were also noted to reflect certain structures of indigenous social organization such as marriages, harvest festivals, ball games, receptions of dignitaries, burials, while certain activities were recorded as being performed in the hope of achieving a specific outcome – divination, ancestor veneration, fertility, curing or creation of a *Cemi*, which is a spirit given physical form (Kaye 2010: 177-223).

From a European perspective, the individual rituals or ceremonies observed in the Caribbean served to demonstrate that the islanders held beliefs, or superstitions, which the Europeans considered to be of a religious nature, albeit of an alien kind which they were not interested in promoting or protecting. What the Europeans did not perceive was the concept, held in common with many peoples of the Americas, that the pre-contact and contact-period Caribbean Amerindian world was an animistic one which was believed to be inhabited by different sorts of subjects or persons, both human and non-human, which apprehended reality from distinct points of view (Viveiros de Castro 2002: 307). It is beliefs such as these which allow for the blurring

of the distinctions between the living and the dead, the animate and the inanimate and the possibility of transition from one state to another: the liminal experience.

Arrom (1997: xviii) refers to Fray Ramón Pané, writing ca. 1493 about the various rituals and ceremonies he observed in Hispaniola in which he made frequent reference to the islanders' myths. Mythological explanations were recorded as given for the animation of the climate, plants and trees and other natural phenomena (Arrom 1997: xviii). This implies that ritual activity can be attributed to negotiation through objects which can be interpreted as the use of active intermediaries between people and the supernatural, where *Cemies* were animate but could be captured and given a physical form, and where people were part of nature instead of being separate from it. These myths can be viewed as profound philosophical statements about the universe based on both concrete and perceived experiences.

Although for Barbados similar historic accounts do not exist, it can be expected that similar myths and beliefs were present in pre-colonial society in this island based on the fact that Amerindian cosmivision has many shared and widespread aspects, and also because there are certain artifacts that also seem to reflect the existence of such rituals.

## Ritual Objects

*'For effective ritual, a transcendent force must be present or be induced to be present. In most societies this force is symbolized by some material form or image...'*  
(Renfrew and Bahn 1991: 359).

The material forms most closely identified with ritual in the pre-colonial Caribbean are those objects described by the early European colonizers as connected to the ceremonial absorption of the hallucinogenic *Cohoba* (Las Casas 1997; Pané 1999). Certain of the paraphernalia of drug use on the mainland of South America bear striking similarities to those recovered in the Caribbean. Both regions use variations of tubes (either bifurcated or single) to ingest hallucinogenic plant material from dishes or containers, often decorated with patterning which can be interpreted as symbolic (discussed below). Additionally, in both South America and the Caribbean decorated *Duhos*, ceremonial stools upon which the participant during the ritual sat, are found (McEwan 2001: 176-197; Ostapkowicz 1997). Cleansing and purity by abstinence and/or vomiting are required by the participants in the drug-taking ceremonial for the drug to be effective. Ceramic spouted bowls recovered from Costa Rica and West Mexico are also similar in form to those found in the Caribbean (Furst 1974, 1998; Snarksis 1981: 200; Snarksis 1982: 94-100; Stone 1966: 209-233; Von Winning 1974: 16).

Apart from differences to be found in decorative imagery (which one can assume reflects cultural variation), only in the Caribbean was the drug material noted to be taken directly from the head of a carved figure known as a *Cemi* and only in the Caribbean were carved spatulas used for inducing vomiting, as discussed by Loven (1935). Whereas ceramic spouted bowls have been recovered archaeologically from West Mexico and Costa Rica, in addition to the Greater and Lesser Antilles, there is no evidence for their use further south, in pre-colonial South America.

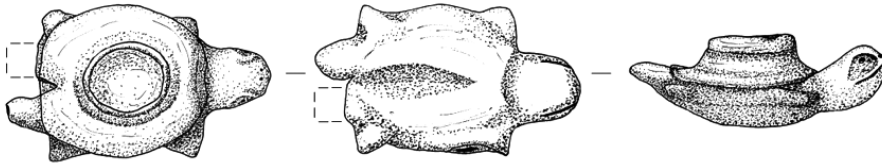


Figure 5.1. Spouted bowl, Barbados, ceramic, h: 4.3cm, l: 13.4cm, w: 7.5cm. (Quetta Kaye).



Figure 5.2. Three-pointer stone from Three Houses, Barbados, shell. Surface collection and picture by Peter Date, picture detail reproduced with permission (scale added by editor).

The use of small bifurcated spouted bowls for the inhalation of hallucinogenic powder is not specified by the European chroniclers but various researchers have connected these vessels to such usage (Kaye 2010) as well as the nasal absorption of a liquid, rather than powdered, material (Durand and Petitjean-Roget 1991: 60; Wilbert 1987). Inhaling tubes have been found in St Vincent, Dominica and Guadeloupe and have also been recovered in islands further north in Barbuda, Anguilla and Saba. The largest number of inhaling tubes, however, has been recovered from the Greater Antilles, most notably from the south coast of the Dominican Republic (Kaye 2010: 255). Small numbers of spouted bowls have been recovered from nine islands in the Lesser Antilles, including Trinidad, Tobago, Grenada, Barbados, Carriacou, St Vincent, Martinique, Guadeloupe, and Montserrat. They are more numerous in Puerto Rico and, to a lesser extent, the Dominican Republic. Puerto Rico has those that have the earliest dates, ca. 430 BC – AD 490 (Kaye 2010: 255).

In Barbados, three near complete spouted bowls and two individual spouts have been recovered, all of which, apart from one of the broken spouts, are surface finds. Figure 5.1 depicts a turtle shaped bifurcated vessel with one missing spout that is held in the collection of Harrison's Cave, with no provenance information. The turtle is a creature that features strongly in the islanders' origin myth (Pané 1999: 16), creating a direct link between the creation myth and the inhalation of *Cohoba*. The remains of a slightly smaller undecorated vessel with no surviving spouts is in the collection of the Barbados Museum and Historical Society (BMHS) with no provenance information; a spouted bowl with remains of spouts still attached was recovered from one of the Amerindian settlements in Chandler's Bay, St Lucy, in 1925 and is held in the collection of Harrison's Cave. Broken individual spouts, now in the collection of the BMHS, have been recovered from Indian Mound, St Lucy in 1966, or were excavated at Goddards, St Michael, in 1998 (Kaye 2010: 381-385).

Based on dating, contextual evidence and non-local material origins, Fitzpatrick *et al.* (2008) suggested that spouted bowl fragments excavated in 2008 from the nearby island of Carriacou were transported to the island from elsewhere and retained as heir-



looms. As the spouted bowl fragments stored in Harrison's Cave and the BMHS have not been dated and contextual information for these artifacts is scarce, similar hypotheses cannot be brought forward for Barbados. The inference to be drawn from examining this pan-Caribbean collection of spouted bowls is that their use in hallucinogenic inhalation was a tradition which may have been brought from the Mesoamerican mainland during initial settlement in the Caribbean – a tradition which evolved, predominantly in the Greater Antilles in the later pre-conquest period (ca. AD 1000-1500), into a more complex ritual which involved the elaborate artifacts that were described by the early colonizers (Kaye 2010).

Barbados does not have the large-scale ceremonial sites found in the Greater Antilles (Oliver 2005: 230-284) nor have caches of ritual objects been recovered (Kaye 2010: 279), but the artifacts which have been recovered in Barbados display similarities in form – albeit sometimes miniaturized versions – and decoration to those from the Greater Antilles where more highly complex stratified societies had developed by the time of the arrival of the European conquerors. These artifacts reveal the repetition of certain imagery in ceramic, wood and stone found on the artifacts associated with the ritual use of hallucinogens as well as the smaller more portable ritual items of body stamps (see below) and triangular three-pointer stones.

Triangular three-pointer stones are a pan-Caribbean artifact thought to have been introduced to the Caribbean in their simplest form by migrants from northern South America as versions dated ca. 400 and 200 BC are among those which have been recovered from Venezuela and Colombia (McGinnis 1997: 98). Otherwise known as *Cemies*, these stones were believed to embody the 'essence' of Amerindian spiritual beliefs with the more complex forms found in the northern Caribbean reflecting the higher social complexity of the later period ca. AD 1000 – 1500 (McGinnis 1997: 92-105). The triangular *Cemi* form is thought, in part, to reflect the triangular shape of many of the islands found throughout the Caribbean chain. Another theory is that the triangular point represents the manioc/cassava root – the staple crop of the Amerindians, which was known to them as 'yucca' (Pané 1999: 3; 4). The ubiquity of these ritual three-pointer objects indicates their significance to the pre-colonial people and it could be that those three-pointers, which take animal, human or even bimorphic form, incorporate the expression of shamanic hallucinogenic trance states.

Many three-pointers have been recovered as surface finds in Barbados. Recent examples include a possible (incomplete) coral *Cemi* that was collected from the surface at Little Bay in 2015 and some possible shell *Cemi* preforms that were collected from the surface at Three Houses in 2009 and 2015. The latter were made from cut off conch shell protuberances of which the edges had been heavily ground (De Waal in prep. a; in prep. b.). In addition, a *Cemi* fragment made from basalt – a material not naturally occurring in Barbados – was collected from the surface at Three Houses in 2015 (De Waal this volume chapter four figure 4.4, in prep. b).

Drewett (1991: 166) pointed out that three-pointer stones in Barbados are generally neither as polished nor as common compared to those found in nearby islands, which could reflect the lack of suitable materials. He refers to two examples excavated at Chancery Lane which are of a coarse sandstone material (Drewett 1991: 130, Fig 79, No 21) and a polished cone shaped three-pointer made from basalt which was recovered from Heywoods (Drewett *et al.* 2000: 109, Fig 51, No 11). As mentioned, many

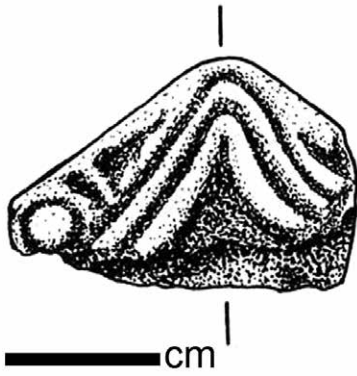


Figure 5.3. Body stamp, Silver Sands, Barbados, rock. Reproduced with permission of the Institute of Archaeology, University College London and Lys Drewett (scale added by editor).

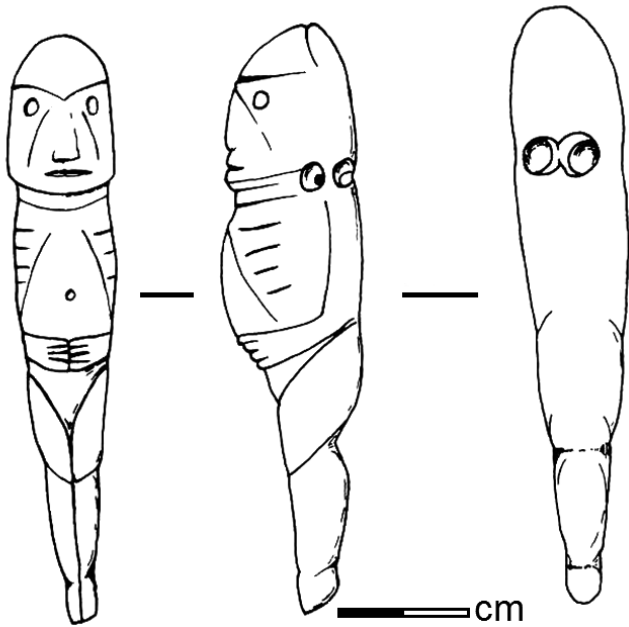


Figure 5.4. Anthropomorphic figure, Barbados, conch shell. Reproduced with permission of the Institute of Archaeology, University College London and Lys Drewett (scale added by editor).

of the Barbados three-pointers are simple small stone or shell cone-shaped objects (figure 5.2) and are unlike the larger highly complex versions incised with zoomorphic, anthropomorphic or multiple identity imagery recovered mainly in the Greater Antilles. In contrast to this lack in Barbados and the Lesser Antilles generally, a large three-pointer *Cemi* was recovered from Carriacou in 2014. A series of angled lines cover part of one side at the apex of this artifact (thought to be the surviving element of chevron patterning), and the face bears the characteristic gaping mouth, wide eyes and segmented ears with pierced lobes of those *Cemies* associated with figures found in the Greater Antilles in the late to terminal pre-colonial period (AD 1000 – 1500) (Kaye *et al.* 2015). A similar artifact, albeit slightly smaller, was recovered from Soufriere Cave, Dominica in 1878 (Honychurch, personal communication 2014). The recovery

of ornate *Cemies* from Carriacou and Dominica would indicate the stylistic development of this significant artifact type and its associated belief systems had spread through the Caribbean into the southern Lesser Antilles (Kaye *et al.* 2015). As result of the absence of this type of artifact in Barbados, it cannot be demonstrated that this development also reached Barbados.

Apart from the ceremonial objects described so far, several Caribbean islands have also provided other artifacts related to ceremonial drug-taking rituals, such as spatulae, used for internal cleansing prior to ceremonies, and *Duhos*. Spatulae have been recovered from Trinidad, Carriacou, Union Island, Martinique, Guadeloupe, Antigua, Anguilla, Tortola, St Thomas, Puerto Rico, Dominican Republic, Haiti and Cuba, but with the Dominican Republic and the eastern coastal area of Cuba having considerably more spatulas than other islands. This list includes some islands where no other artifacts associated with the use of hallucinogens have been recovered (De Waal 2006: 346; Kaye 2010: 253). In Barbados, so far, no finds of pre-colonial spatulae have been reported. *Duhos* are almost exclusively known from the Greater Antilles, although one simple wooden *Duho* has been found in a pitch lake in Trinidad (Kaye 2010: 633). Further north, in the Leeward Islands, a wooden *Duho* was recovered from a cave in Dominica and a similar from Guadeloupe (Ostapkowicz *et al.* 2011: 140). One crouched clay effigy figure has been recovered from St Lucia (Kaye 2010: 644).

In examining the decorative imagery of ritual material culture across the Antilles certain features dominate implying particular significance to the Amerindian population in terms of cultural practice. This imagery consists of deeply incised circles, triangles and other geometric patterns, perhaps entoptically derived, as well as figurative representations that take forms referencing zoomorphs, anthropomorphs and bimorphs. Bimorphic images combine human and animal features that could be interpreted as representing a state of transition from one condition to another (Kaye 2010: 237).

The zoomorphic forms include those creatures which can cross boundaries or reverse the norm of humans *i.e.* birds which inhabit the sky and yet swim in water and produce offspring from eggs on land; frogs which can live both in and out of water; turtles who swim in the sea yet come ashore to lay eggs; bats which are mammals but inhabit dark caves and emerge at night – all creatures which feature in the islanders' environment and mythology and which are discussed by the early chroniclers in connection with their accounts of indigenous rituals (Moravetz 2003).

Apart from zoomorphic decorations, several ritual objects found in Barbados have also been decorated by incised circle and triangle patterns. An example of this can be observed on a fragment of a triangular body stamp (figure 5.3) made from grey fine-grained rock, which was excavated from Silver Sands in Barbados (Drewett and Cartwright 1991: 132, Fig 80, No 35, Pl 24). The use of body stamps is thought to constitute acts of physical display as a means of communication, making use of the body to transmit socially meaningful messages (Rappaport 1999: 146-147). Providing yet another link to the place of the Lesser Antilles in the wider pre-colonial Caribbean, this Silver Sands body stamp would appear to be identical to a nearly complete triangular-shaped and deeply incised ceramic body stamp excavated from Carriacou in 2004, where the excavators believe Carriacou's artifact could have been used as a template for such decoration on that island (Kaye *et al.* 2004: 84, Figure 2). Comparison of the two artifacts reveals a stylistic similarity that would indicate close cultural connections. Other body stamps were



Figure 5.5 (left). Anthropomorphic figure, Heywoods, Barbados, pottery. Bruce Jardine collection (Maaïke de Waal).

Figure 5.6 (above). Anthropomorphic figure, Heywoods, Barbados, stone. Bruce Jardine collection (Maaïke de Waal).

excavated at Heywoods. These include a triangular body stamp fragment with deep ‘v’ shaped incisions, and a body stamp in the form of an oblong with straight and curvilinear grooves which is suggested as a very stylized representation of a ‘fasting shaman’ (Harris 2000: 95, Figure 45, Nos 67-68). This posture as represented on drug related effigy figures found on other islands is described below. Silver Sands also yielded a body stamp. This is a round sandstone object with incised spiral decoration on one side and a circle on the other surface (Drewett and Cartwright 1991: 133, Figure 80, No 40).

Where imagery incorporates an anthropomorphic figure these invariably take a standardized crouched form echoing that of the shaman when seated, crouched upon a *Duho*, participating in the ritual use of hallucinogens. Hands are clasped across the abdomen, ribs and vertebrae exposed as from shamanic fasting, a clearly delineated navel reflects the myth in which a human can be distinguished from a spirit by the presence of a navel, and ‘tear stained’ marks on the cheeks caused in reaction to absorption of the drug. As described above, the facial features generally conform to a pattern of gaping mouth, wide eyes and large ears with segmented ear lobes.

In Barbados two small anthropomorphic figures carved from conch shell were excavated from Silver Sands (Cartwright *et al.* 1991: 116, Figure 72, Nos 73 and 74). One of these is depicted in figure 5.4. These figures adopt similar poses to those described above for effigy figures found mainly in the Greater Antilles. Also recovered from Silver Sands was a carved shell plaque representing teeth, possibly the surviving element of one of those wooden anthropomorphic effigies more commonly found in the Greater Antilles (Cartwright *et al.* 1991: 116, Figure 72, No 77).

Other figures displaying similar characteristics have been recovered as surface finds. For example, an anthropomorphic figurine made of conch shell which possibly depicts a carving of a bound 'prisoner' was discovered at Fresh Water Bay in St. Michael on the island's west coast and is now held by the BMHS. Two other anthropomorphic figures were found at Heywoods: one made from pottery, the other from a translucent stone (figures 5.5 and 5.6) (Jardine personal communication 2009). Unfortunately, very little information relating to the context of these latter two finds is available. The form taken by these human figures might indicate that they represent a specific story (myth) or even a personage that reflects the culture and history of the people (cf. Kaye 2010: 297).

### **Ritual use of space**

In addition to the identification of ritual objects, study of the original chronicles and archaeological evidence also allows for identification of specific ritual locations used by the pre-colonial Caribbean islanders. Caves feature as entrances to the underworld; plazas or ball courts delineate areas in which ceremonies and rituals took place; petroglyphs survive like exclamation marks in the landscape to indicate significant locations and generally appear near watery sites (pools, springs, streams, rivers) or within the dark interior of caves. The marking of these sites, together with the artifacts connected with the use of mind-altering drugs, can all be said to be communication tools for the visualization of ritual concepts and reveal the inter-island dispersal of cultural attributes.

Barbados does not have the ceremonial plazas or ball courts found in the Greater Antilles. But, in addition to the artifacts associated with drug use, ritual activities are known to include the marking of rocks with petroglyphs where the actual percussive sound of the tapping of the stone in the creation of the image could be said to have played a part in the ceremonial of their construction in addition to that of reproducing culturally significant images. The marking of the landscape in this way has been noted throughout the Caribbean, with petroglyphs described by Dubelaar (1986) as being predominantly human images and marking places with mythological or ritual significance, such as ceremonial centers, watery locations and caves whose dark recesses were thought to access the underworld.

The human images carved into stalactites in the caves at Spring Head, St John's, Barbados, are similar to those found in nearby islands with the representations of the human face represented there falling within those of the pan-Caribbean traditions. The Spring Head petroglyphs are the only certain group of pre-colonial petroglyphs in Barbados (Drewett 1993: 110, 1996/97: 50; Dubelaar 1995: 138-145), and while representing what is possibly ceremonial or ritual activity, examination of the interior of the cave revealed no Amerindian material in this ceremonial location (Drewett 1996/97: 50-58). Lace *et al.* (2013: 60) reported a possible Amerindian petroglyph in another cave site in Barbados (Site OC) but as more recent graffiti is blurring the presumable carving, more research is needed to identify its nature (see also De Waal this volume chapter 4).

In discussing locations, it should be noted that any additional items which might have a ritual nature made from organic materials, such as cloth pouches or gourd containers, would be unlikely to be preserved. The limited numbers of organic artifacts which have survived in the Antilles has done so by virtue of the specific context of

their deposition, such as wooden effigy figures and *Dubos* recovered within caves in the Greater Antilles or from anaerobic conditions such as the pitch lake in Trinidad – conditions which are exceptional rather than the norm in the Caribbean. Similar exceptional conditions were rare at the pre-colonial coastal settlement sites in Barbados which have been investigated by Drewett. Other than the isolated artifacts discussed above, none of these sites has provided material which indicates their specific use in ritual contexts with the exceptions mentioned below.

A site with possible ritual connotations could be Heywoods, where excavation revealed a series of pot-lined wells (Drewett 1991: 25-27; Drewett and Bennell 2000: 29-34). The use of upturned bottomless pots stacked to act as well liners in order to access fresh water is not unique to Barbados, but the fine quality and decoration of the pots used at Heywoods might indicate that a ritual element was involved with the extraction of the life-giving fresh water (cf. Drewett 2000: 169).

Burials also exhibit evidence of ritual behaviour that can be identified in the archaeological record. The deliberate deposition of a body in the ground, with or without grave goods, is in itself a form of ritual. Known pre-colonial burial sites in Barbados include Chancery Lane, Greenland, Maxwell, Brandons, Hillcrest and Silver Sands, which have produced a total of 23 burials, both male and female, since 1985 (Drewett 1991: 166-177).

The burials show considerable variety, with skeletal remains lying on their side and in crouched, sitting and extended positions – disarticulation prior to burial has been observed as well (Drewett 1991: 169). Few grave goods have been recovered, exceptions being:

*'within a Goddard house where a clay zoomorphic figure head and a red slipped clay disc were found by the head, and a small triangular piece of ground coral was found by the forearm. The other inhumation at Goddard was buried with the forebody of an immature Indian dog'* (Drewett 1991: 169).

At Silver Sands, two burials were found to have small shell discs on their right shoulders, one of these deceased also having parrotfish bones under the feet. Two other burials had a parrotfish jaw in the same location and a cut dog tooth on the pelvis respectively. Four parrotfish jaws were found in the latter burial's grave backfill (Drewett 1991: 169).

Seven partly dismembered dog burials were recovered from Silver Sands, with three other individuals present in fragmentary form (Drewett 1991: 175). Dogs are thought to have replaced the jaguar of South American mythology whose representation can be seen in many zoomorphic artifact forms and dog burials therefore are expected to have had a socio-religious function (Kaye 2010: 259).

## Conclusion

The present state of Caribbean archaeology and art history goes beyond artifacts, art and symbolism to view objects in their social, cultural and chronological contexts and is concerned with the relationship of human beings to objects and on how these relationships are negotiated and displayed through ritual. Ceremonies and rituals serve to remind people of the underlying factors which exist in the articulation between

power and knowledge in relation to social actions and practices. Often expressed in a 'language' different from that of every day, carrying emotionally loaded messages, rituals enhance group solidarity and can be factors in reinforcing ideology and power although frequently with differential access (Kaye 2010: 139).

Despite their limitations, therefore, the chroniclers' initial descriptions are valuable first impressions of the 'New World' they encountered. These accounts, taken critically, provide the foundations of our knowledge of the forms of the rituals, the locations in which they took place, the material culture involved and the perceived outcomes of the rituals. These reports can be used as a basis for comparison with archaeological data and the relevance of this to Barbados is that from the material recovered the archaeological evidence reveals that ideologically similar belief systems existed, albeit possibly in modified forms, across the vast distances of the Caribbean island chain.

Evidence has been discussed for possible ritual use of space in Barbados, including the presence of petroglyphs, series of pot-lined wells and burials. In addition, ritual artifacts from Barbados have been described, such as spouts and spouted bowls, triangular three-pointer stones, body stamps and anthropomorphic figurines. Finally, attention has been paid to decorative imagery with a possible ritual connotation found in Barbados. Parallels in form and decoration, which can be seen in the symbolic motifs and mythological references duplicated in the different range of objects and phenomena, would indicate a degree of either intensive communication or cultural cohesion across the Caribbean islands. The existence of examples of these types of objects in the Lesser Antilles, with direct links to the material culture recovered in the Greater Antilles, confirms the inter-connectedness of the Amerindian peoples and their belief systems by the diffusion of ideas. Far from being isolated from the rest of the Caribbean islands, evidence from surviving objects can reveal that Barbados was, in fact, very much part of this inter-island connectedness.

## References

- Arrom, J.  
1997 The creation myth of the Taino. In *Taino Pre-Columbian Art and Culture from the Caribbean*, edited by F. Bercht, E. Brodsky, J. Farmer, and D. Taylor, pp. 68-79. The Monacelli Press, New York.
- Cartwright, C., P. Drewett, and R. Elmer.  
1991 Material culture II – shell artifacts. In *Prehistoric Barbados*, edited by P. Drewett, pp. 101-123. Archetype Publications, London.
- De Waal, M.  
2006 Pre-Columbian Social Organisation and Interaction Interpreted through the Study of Settlement Patterns. An archaeological case-study of the Pointe des Châteaux, La Désirade and Les Îles de la Petite Terre micro-region, Guadeloupe, F.W.I. PhD dissertation, Leiden University. Digital Printing Partners Utrecht B.V., Houten, NL.
- In prep. a. Little Bay, St. Lucy, Boscobelle Bay, St. Andrew, and Skeetes Bay Plateau, St. Philip, Barbados. Pre-colonial settlement in eroding coastal landscapes.
- In prep. b. Pre-colonial settlement at Three Houses, St. Philip, Barbados.

- Drewett, P.
- 1991 *Prehistoric Barbados*. Archetype Publications, London, UK.
- 1993 Further contributions on prehistoric Barbados, including the first evidence for preceramic Peoples. *The Journal of the Barbados Museum and Historical Society* 41:99-112.
- 1996/1997. The Springhead petroglyph cave. *The Journal of the Barbados Museum and Historical Society* 43:50-58.
- 2000 Prehistoric settlement of Barbados and Tortola. In *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 167-170. Archetype Publications, London.
- Drewett, P. and M. Bennell.
- 2000 Settlement archaeology on Barbados II. The Port St. Charles (Heywoods) archaeological rescue project. In *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 27-50. Archetype Publications, London.
- Drewett, P. and C. Cartwright.
- 1991 Material culture III – stone artifacts. In *Prehistoric Barbados*, edited by P. Drewett, pp. 124-133. Archetype Publications, London.
- Drewett, P., G. Hunt, M. Bennell, and L. Drewett.
- 2000 Barbados material culture II. Shell, stone and wooden artifacts. In *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 103-112. Archetype Publications, London.
- Dubelaar, C.
- 1986 South American and Caribbean petroglyphs. *Koninklijk Instituut Taal, Land en Volkenkunde, Caribbean Series* 3:107-114.
- 1995 *The Petroglyphs of the Lesser Antilles, the Virgin Islands and Trinidad. South American and Caribbean Petroglyphs*. Publication of the Foundation for Scientific Research in the Caribbean Region. Natuurwetenschappelijke Studiekring voor het Caraïbisch Gebied, Amsterdam.
- Durand, J. and H. Petitjean Roget.
- 1991 A Propos d'un collier funéraire à Morel, Guadeloupe, Les Huécoïdes sont-ils un Mythe? *Proceedings of the Twelfth Congress of the International Association for Caribbean Archaeology, Cayenne, July-August 1987*, edited by L. Sickler Robinson, pp. 53-72. AIAC, Martinique.
- Fitzpatrick, S., Q. Kaye, J. Feathers, J. Pavia, and K. Marsaglia.
- 2008 Evidence for inter-island transport of heirlooms: luminescence dating and petrographic analysis of ceramic inhaling bowls from Carriacou, West Indies. *Journal of Archaeological Science* 36/3:596-606.
- Furst, P.
- 1974 Archaeological evidence for snuffing in prehispanic Mexico. *Botanical Museum Leaflets Harvard University* 24/1:1-28. Harvard University, Cambridge, Massachusetts.



- 1998 Shamanic symbolism, transformation and deities in west Mexican funerary art. In *Ancient West Mexico: Art and Archaeology of the Unknown Past*, edited by R. Townsend, pp. 169-190. Art Institute of Chicago, Chicago.
- Harris, M.  
2000 Barbados material culture I. Pottery: typology and style. In *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*, edited by P. Drewett, pp. 51-102. Archetype Publications, London.
- Kaye, Q.  
2010 Ritual drug use, material culture and the social context of power among the indigenous peoples of the Caribbean using ethnographic, ethnohistoric and archaeological data. Vols I and II. Unpublished PhD thesis, University College London, London.
- Kaye, Q., S. Fitzpatrick and M. Kappers.  
2004 A preliminary report on the excavation at Grand Bay, Carriacou, West Indies, June 28th-July 31st 2004. *Papers from the Institute of Archaeology, University College London* 15:82-89.  
2015 An overview of ten years of archaeological research on Carriacou, W.I. (2003-2014). *Proceedings of the 26th Congress of the International Association for Caribbean Archaeology, St. Martin, July 2015*:2-41.
- Lace, M., J. Mylroie, P. Kambesis and H. Machel.  
2013 Geoarchaeology of the caves of Barbados, West Indies. *Journal of Caribbean Archaeology* 13:43-79.
- Las Casas, B.  
1997 Appendices [translated by S. Griswold]. In *Taino Pre-Columbian Art and Culture from the Caribbean*, edited by F. Bercht, E. Brodsky, J. Farmer and D. Taylor, pp. 170-180. The Monacelli Press, New York.
- Loven, S.  
1935 *Origins of the Tainan Culture, West Indies*. Elanders Bokiryerkeri Akfiebolog, Goteborg/Gothenburg.
- McEwan, C.  
2001 Seats of power: axiality and access to invisible worlds. In *Unknown Amazon*, edited by C. McEwan, C. Barreto and E. Neves, pp. 176-197. The British Museum Press, London.
- McGinnis, S.  
1997 Zemi three-pointers stones. In *Taino Pre-Columbian Art and Culture from the Caribbean*, edited by F. Bercht, E. Brodsky, J. Farmer and D. Taylor, pp. 92-105. The Monacelli Press, New York.
- Moravetz, I.  
2003 Identification and significance of sea turtles in Saladoid art. In *Proceedings of the Nineteenth International Congress for Caribbean Archaeology, Aruba, 2001, vol. 1*, edited by L. Alofs and R. Dijkhoff, pp. 158-170. Publication of the Museo Arqueologico Aruba, vol. 9.

- Oliver, J.  
 1997 The Taino cosmos. In *The Indigenous People of the Caribbean*, edited by S. Wilson, pp. 140-153. University Press of Florida, Florida.  
 2000 Gold symbolism among Caribbean chiefdoms. In *Precolumbian Gold*, edited by C. McEwan, pp.169-219. British Museum Press, London.  
 2005 The Proto-Taino Monumental Cemís of Caguana: A Political-Religious ‘Manifesto’. In *Ancient Borinquen: Archaeology and Ethnohistory of Native Puerto Rico*, edited by P. Siegel, pp. 230-284. The University of Alabama Press, Tuscaloosa, Alabama.
- Ostapkowicz, J.  
 1997 To be seated with ‘great courtesy and veneration’: contextual aspects of the Taino *Duho*. In *Taino Pre-Columbian Art and Culture from the Caribbean*, edited by F. Bercht, E. Brodsky, J. Farmer and D. Taylor, pp. 56-67. The Monacelli Press, New York.
- Opstapkowitz, J., C. Bronk Ramsey, A. Wiedenhoef, F. Brock, T. Higham, and S. Wilson.  
 2011 ‘This relic of antiquity’. Fifth to fifteenth century wood carvings from the southern Lesser Antilles. In *Communities in Contact*, edited by C. Hofman and A. van Duijvenbode, pp. 137-170. Sidestone Press, Leiden.
- Pané, R.  
 1999 *An Account of the Antiquities of the Indians* [ca. 1498; translated by S. Griswold]. Duke University Press, Durham and London.
- Rappaport, R.  
 1999 *Ritual and Religion in the Making of Humanity*. Cambridge University Press, Cambridge.
- Renfrew, C. and P. Bahn.  
 1991 *Archaeology: Theories Methods and Practice*. Thames & Hudson, London.
- Snarksis, M.  
 1981 *Precolumbian Art of Costa Rica: Between Continents/Between Seas*. Harry N Abrams Inc., New York.  
 1982 *La Cerámica Precolumbina en Costa Rica*. Instituto Nacional de Seguros, San Jose.
- Stevens-Arroyo, A.  
 1988 *Cave of the Jagua*. University of New Mexico Press, Albuquerque.
- Stone, D.  
 1966 Synthesis of lower central American ethnohistory. In *Handbook of Middle American Indians* Vol. 4, edited by R. Wauchope, G. Ekholm and G. Willey, pp. 209-233. University of Texas Press Ltd., Austin.
- Viveiros de Castro, E.  
 2002 Cosmological deixis and Amerindian perspectivism. In *A Reader in the Anthropology of Religion*, edited by M. Lambeck, pp. 306-326. Oxford, Blackwell.

Von Winning, H.

1974 The Shaft Tomb Figures of West Mexico. *Southwest Museum Papers* 24. Southwest Museum, Los Angeles.

Wilbert, J.

1987 *Tobacco and Shamanism in South America*. Yale University Press, New Haven.

Wilson, S.

1993 The Cultural Mosaic of the Indigenous Caribbean. In *The Meeting of Two Worlds: Europe and the Americas 1492-1650*, edited by W. Bray, pp. 37-66. *Proceedings of the British Academy* 81. Oxford University Press, Oxford.



Section Two

# **Historical Archaeology**

*Under the editorial direction of  
Matthew C. Reilly and Kevin Farmer*



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## St. Nicholas Abbey

### Centering People in Plantation Archaeology in Barbados in the Twenty-First Century

*Frederick H. Smith*

#### **Abstract**

St. Nicholas Abbey is one of the oldest sugar estates in Barbados and it is the country's premier cultural heritage site. Archaeological investigations at St. Nicholas Abbey began in 2006 with the aim of creating a regular and sustainable research program that addressed the lives of the many different peoples who lived and worked on the estate over the centuries, especially enslaved workers and post-emancipation tenants. This paper addresses our efforts to create an inclusive people-centered archaeology where historical interpretations can be constructed and challenged. It examines the major archaeological discoveries at St. Nicholas Abbey over the past dozen years and places them within the broader context of heritage tourism and sustainable world heritage.

**Keywords:** *slavery, tenantry, plantation studies, heritage tourism, sustainable heritage.*

#### **Introduction**

The International Council on Monuments and Sites (ICOMOS), which plays a key advisory role for the UNESCO World Heritage Committee, has stressed the need for sustainable approaches to world heritage sites that give cultural heritage a function in the life of the community and that promote cultural diversity, inclusion, and equity (ICOMOS 2015). Anthropologists and cultural heritage specialists have also argued that efforts at sustainable world heritage and heritage tourism should challenge western-centric notions of authenticity and preservation and advance instead dynamic, people-centered interpretations of sites that serve as:

*'loci of identity, where meanings are constructed and contested'* (Di Giovine 2017: 4).

The colonial legacy of Barbados and the demands of international tourism have, in the past, hampered the pursuit and application of these goals in the island, especially at sites associated with Barbados' pioneering and once-flourishing sugar industry. Among these sites is St. Nicholas Abbey sugar plantation, one of the most well-known heritage sites in Barbados. Opened to the public as a tourist attraction in the 1970s by Colonel Stephen Cave, whose family had acquired the estate in the 1830s, St. Nicholas Abbey displayed a still and passive reminder of the island's deeply entrenched colonial past. The tour celebrated the estate's unique architecture and its illustrious owners, but, as was typical of other privately-owned plantation heritage sites of the time, largely overlooked the stories of enslaved workers, women, poor whites, and tenant laborers who made St. Nicholas Abbey a wealthy and viable sugar estate for almost four centuries. New ownership of the estate in 2006, however, has resulted in changing interpretations of the site and a new role for it in the community. St. Nicholas Abbey now embraces an active people-centered diversity and inclusivity, which are foundations of sustainable

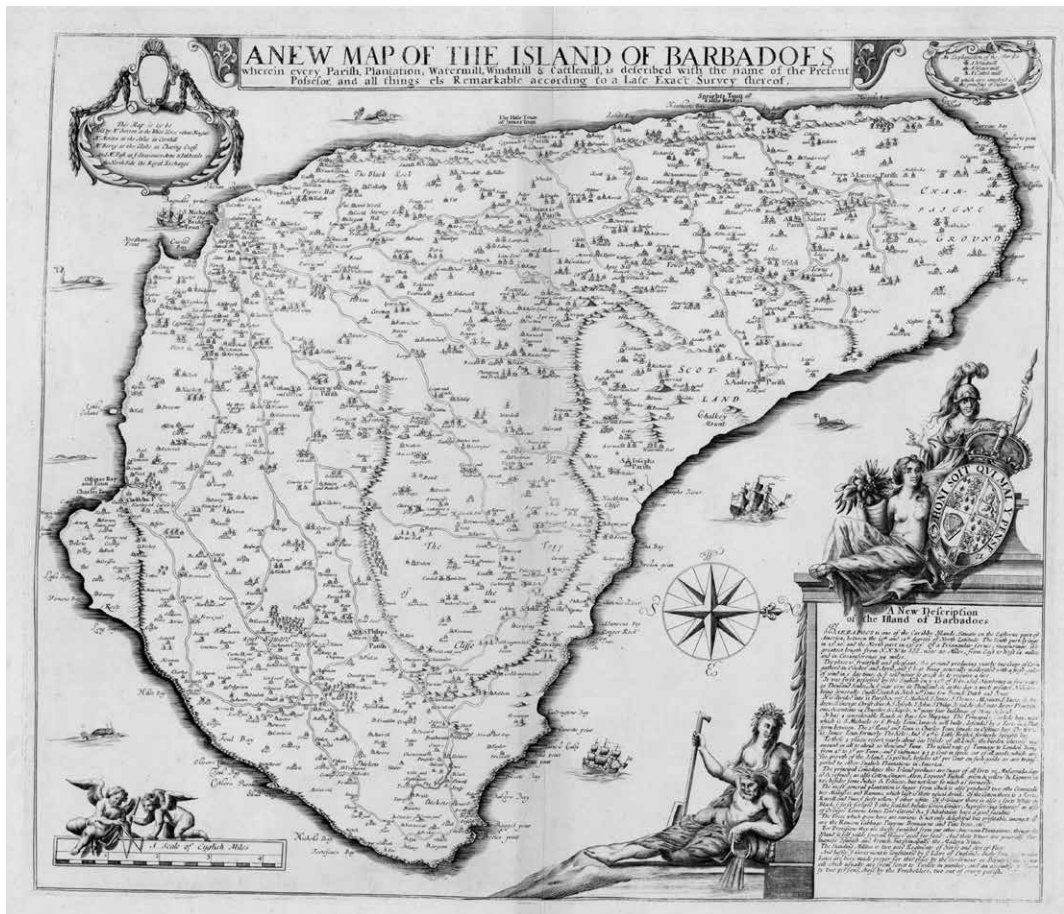


Figure 6.1. A New Map of the Island of Barbadoes by Richard Forde ca. 1674 (John Cater Brown Library).



tourism in the twenty-first century. The longstanding archaeological research program at the site has helped advance that interpretive transformation. This paper examines the major archaeological discoveries at St. Nicholas Abbey over the past dozen years and places them within the broader framework of the living history of this space that is presented as a heritage landscape informing national identity.

St. Nicholas Abbey is one of the premier heritage sites in Barbados drawing tens of thousands of Barbadian nationals and foreign visitors every year. As a house museum, St. Nicholas Abbey is similar in many respects to the hundreds of privately-owned heritage estates, such as Monticello, Middleton Place, and Mt. Vernon, which dot the North American landscape. Situated on the edge of the Scotland District on Cherry Tree Hill, St. Nicholas Abbey overlooks both the calm waters of the west coast and the rugged terrain of the east coast. It is located in the countryside in the parish of St. Peter far away from the urban sprawl of the capital city of Bridgetown, as well as from the white sand beaches and luxury resorts along the coasts. The journey to St. Nicholas Abbey takes visitors through picturesque villages of brightly colored chattel houses and emerald-green fields of sugarcane that once dominated the Barbadian landscape. Behind the bucolic charm of St. Nicholas Abbey, however, is also a powerful story of colonialism, capitalism, and slavery, which the owners have sought to tell through the historical and archaeological research they've sponsored, as well as through the restoration of buildings and machinery on the estate. Moreover, a book on the social history of the estate is in progress and plans for an interpretive archaeology museum on the site are currently underway. As a prominent heritage site in Barbados, St. Nicholas Abbey is in a special position to promote an inclusive and people-centered sustainable tourism that serves as a departure point for discussions about Barbadian identity in a global age. In what follows, I outline a history of the property and the archaeological findings to date that inform a more socially-conscious approach to heritage.

### **St. Nicholas Abbey and the Making of a Cultural Heritage Site**

Attaining the status as a premier heritage site requires a high level of historical integrity and cultural significance, and as one of the oldest and largest sugar estates in Barbados, St. Nicholas Abbey certainly possesses those qualities. The area that would become St. Nicholas Abbey was a rugged wilderness in the early years of English settlement. Richard Ligon, an English Royalist who fled Civil War in England and lived in Barbados at the very start of the sugar revolution between 1647 and 1650, published a map of Barbados in his brief history of the island when he returned to England. The map, which was originally drawn by Captain John Swan, identifies many of the property owners in 1638 prior to the start of the sugar revolution (Campbell 1993: 141). Although it is spatially inaccurate in many respects, it does list the names of some 250 early property owners. Ligon's map showed little development in the mountainous interior of Barbados, however, the lands that would become St. Nicholas Abbey are marked.

In the 1650s, sugarcane agriculture expanded rapidly across Barbados. The value of sugar and the success of Barbadian sugar planters meant that a green sea of sugarcane swept across the interior of the island. The ancient old-growth rainforests were set ablaze in what was called 'the great clearing' (Bridenbaugh and Bridenbaugh 1972: 268). The

environmental plunder was so impressive that crewmembers aboard sailing ships reported seeing smoke from the fires on Barbados long before they ever reached the island. It was during this time that the lands that would become St. Nicholas Abbey plantation were fully wrestled from the wilderness. Richard Forde's map of Barbados ca. 1675 shows the impact of the sugar revolution on the settlement of the interior. Nearly every inch of arable land came under sugarcane cultivation, including the lands that would become St. Nicholas Abbey (figures 6.1 and 6.2).

The estate that was to become St. Nicholas Abbey was first established in the 1630s before the start of Barbados' sugar revolution when English colonists, Benjamin Berringer and John Yeamans, formed a business partnership in land speculation. By 1638, Berringer had purchased the first parcels of land in St. Peter that would make up the estate. Despite the spatial inaccuracies of Swan's map of 1638, the name *Biron*, a corruption of Berringer, appears on the map adjacent to other known estates in the area, in particular, Fosters. Some of Berringer's initial landholdings resulted from his marriage to Margaret Foster, the daughter of Reverend John Foster and Margaret Gibbes, who were very early settlers in this area of Barbados. Although Berringer does not appear on the list of inhabitants owning more than 10 acres of land in 1638, Campbell (1993) believes his omission was due to his early political affiliation with the controversial Governor Henry Hawley. In the 1640s, Berringer made additional land purchases directly from the Lords Proprietor James Hay the First Earl of Carlisle. He paid for that land with ginger and indigo, crops that were only produced in large quantities in the earliest years after settlement (Deed Books RB 1, 2, and 3). In 1641, Berringer and Yeamans bought 60 acres of land in St. Peter and, in 1647, accumulated 365 acres, dividing the land into two neighboring plantations. Their enterprise had its difficulties though, and Berringer sought to dissolve their partnership on several occasions. As sizeable property owners, Berringer and Yeamans solidified their political positions and served together on the Barbados Council in the 1640s and 50s.

During the seventeenth century, St. Nicholas Abbey was one of the largest plantations in Barbados. In 1673, Major Sir William Yeamans, John's eldest son, was managing the 300-acre estate and was registered in the list of 'the most eminent planters in Barbadoes' (Cal. State Papers Colonial America and the West Indies, vol. 7, 1669-1674). The list, which was commissioned for colonial administrators, identified 74 of the largest plantation owners in Barbados at this time. Among those on the list were Major Robert Hackett, with 900 acres, who married Yeamans' daughter Frances Yeamans in 1662, and Captain Thomas Maycock, with 500 acres, who married Berringer's daughter Mary Berringer in 1667. Marriage helped these early plantation families consolidate their political influence and cement their economic fortunes. Historian Richard Dunn (1972) has done some of the most thorough analysis on the rise of the early Barbadian planter class. There were 2,639 property owners in Barbados in 1680 excluding the 405 owners of small urban parcels in Bridgetown. According to Dunn (ibid:88-89), the mean size of a Barbadian estate was 29 acres and the median size was only 10 acres. Thus, at 318 acres, St. Nicholas Abbey was more than 10 times the average landholding (Deed Books RB 19:228). It had two windmills, a sugar boiling house, a distillery, and a number of other plantation buildings. The Yeamans and Berringers were what were known as 'big planters.' In William Mayo's survey map of Barbados made between 1717 and 1721, the estate is still identified as having two

windmills. Since the early days of the partnership between Yeamans and Berringer, St. Nicholas Abbey probably never fell below 300 acres and since the early nineteenth century it has almost always been over 400 acres.

As one of the oldest and largest estates in Barbados, St. Nicholas Abbey garnered considerable attention from Barbadians and foreign visitors, but it is the unique and intact architectural style of the great house that attracted tourists to the site. The great house has long been considered a grand and notable landmark. In the 1840s, the explorer, geographer, and British colonial official Sir Robert H. Schomburgk was stationed in Barbados and wrote of St. Nicholas Abbey great house:

*'The Mansion House, on the plantation called St. Nicholas' Abbey, on the precincts of the parish, is one of the oldest dwelling-houses in the island; it is built in the intermediate style between Elizabethan and our own period, and the surrounding gardens harmonize with its architecture. An Avenue of mahogany-trees leads from the mansion to Cherry Hill, the summit of which presents one of the finest prospects in the island'* (Schomburgk 1848:237-238)

In the early twentieth century, historians and architectural experts continued to describe St. Nicholas Abbey great house as one of the most 'ancient, charming and finest' great houses in Barbados (Waterman 1945:146). At the start of the twenty-first century, the Barbados Tourism Authority touts the estate's great house as one of the Seven Wonders of Barbados (<http://www.barbados.org/7wonders.htm>). The great house is a Jacobean architecture style, which was a transitional phase in English design that merged Tudor and Elizabethan styles with continental Renaissance influences. It is thought to have been built in ca. 1658, though there is unfortunately no reliable documentary evidence to confirm the mid-seventeenth-century construction of the house. The archaeological evidence, however, has revealed a small domestic post-in-ground dwelling dating to the 1630s and 40s that appears to be the predecessor to the grand Jacobean-styled great house.

Tourism at the estate was bolstered by its legendary South Carolina connection. In 1664-65, with the backing from a group of wealthy Barbadian planters, John Yeamans received his baronetcy and began working on plans for a proprietary settlement in the Province of Carolina in North America. The purpose of the proprietary settlement was to create a Barbadian satellite colony that would open up new opportunities to Barbadians in the business of plantation agriculture. The Crown was also eager to support any endeavor that might help to refill depleted royal coffers after The Restoration. The Province of Carolina was also expected to provide fresh avenues for the youngest sons of Barbadian planters to establish their own estates, which was difficult to do in the small island of Barbados (Dunn 2000:145). Moreover, the Lords Proprietors, many of whom were Barbadian planters, hoped to oversee a settlement that would produce provision crops to feed enslaved workers on the plantations back in Barbados. Sugar was so valuable that few Barbadian planters were willing to set aside good sugarcane-growing land for food crops. It made more financial sense to grow provisions on family-owned estates elsewhere and import them. In 1665, Yeamans led an unsuccessful attempt to establish a Barbadian settlement along the Cape Fear River in what is today North Carolina. Yeamans returned to Barbados to regroup. In 1670, he and

the Lords Proprietors organized a second, successful expedition that included the sons and daughters of Barbadian planters, indentured servants, and enslaved workers. The settlement was founded further south this time at Charles Towne, near modern-day Charleston, South Carolina. Yeamans appointed a Bermudian, William Sayle, as Governor, but Yeamans himself would eventually take over the Governorship in 1672. Berringer's youngest daughter Margaret took part in the South Carolina venture. Her marriage to James Moore, a respected and early Governor of South Carolina, further strengthened the legendary status of St. Nicholas Abbey's Carolina connection.

### **Archaeology of the Pre-Columbian Past and Early Years of St. Nicholas Abbey**

The early settlement of the estate, its unique Jacobean architecture, its famous owners, its Carolina connection, and its beautiful location on Cherry Tree Hill made St. Nicholas Abbey a popular destination for Barbadian nationals and foreign visitors, but it is the historical and archaeological research, as well as the restoration of buildings and equipment that are revealing the broader stories of slavery, colonialism, and capitalism. The people-centered histories that emerge from this research make the site of St. Nicholas Abbey pertinent to discussions about sustainable tourism and inclusive cultural heritage in Barbados in the twenty-first century. While the research efforts play an integral role in the accurate historical reconstruction of the site, they also celebrate the diverse histories of the many peoples who lived and worked at St. Nicholas Abbey over the centuries, especially enslaved and free workers on the estate. More importantly, St. Nicholas Abbey continues to be a fully operational sugar estate, and, thus, the research efforts provide opportunities for Barbadians to interpret, construct, and contest historical meaning and national identity within in the context of a functioning heritage site.

I began surveying St. Nicholas Abbey with graduate and undergraduate students from Western Michigan University and the College of William and Mary in 2006. A pedestrian survey along slopes of Cherry Tree Hill immediately revealed a large amount of prehistoric Amerindian pottery, as well as a few conch-shell tools. The Amerindian peoples who had lived on the island for thousands of years had abandoned Barbados only a short time before the English arrived. They probably fled to kin in the neighboring islands, such as St. Vincent and St. Lucia, to avoid capture by Spanish slavers who were scouring the small islands of the Lesser Antilles for captives to work the mines, ranches, and plantations in the Spanish settlements in the large islands of the Greater Antilles. The recent departure of the Amerindian peoples from Barbados was apparent to the early English colonists. Abandoned villages, broken bits of pottery, and tools made from conch shell were scattered about the landscape. The archaeological research of Peter Drewett (1991) and J. Walter Fewkes (1915) has contributed greatly to our understanding of Barbados' indigenous past. The Amerindian legacy is still evident today in the petroglyphs that can be found in some of the many limestone caves that dot the island and in the trails that would later serve as the road system for early colonial settlers. In fact, the road winding through St. Nicholas Abbey today was once an Amerindian footpath that appears to have connected two large Amerindian villages on opposite sides of the island; at Heywoods on the West Coast and Walkers on the East. The presence of Amerindian materials relatively far from the sea was once considered

unusual, though Maaïke de Waal (chapter four this volume) has identified an increasing number of inland sites in Barbados that may reflect the greater variation and social complexity of the indigenous peoples on the island. The near absence of soils along the ridgeline at Cherry Tree Hill made it impossible to determine the use and function of the site by Amerindian peoples, but the large amount of Amerindian pottery and shell tools found archaeologically along the ridge of Cherry Tree Hill indicates that long before the arrival of the English, the area, with its strategic and captivating views of both the Atlantic and Caribbean, saw Amerindian activity. It may have served as a central meeting space and perhaps a ceremonial feasting site for members of those two distinct villages on opposite sides of the island (Smith 2006).

Archaeological investigations have also revealed evidence of the earliest English settlement of the property. Deeds and maps tell us that Berringer and Yeamans were living on the property in the 1630s; two decades before the Jacobean manor house was built. Archaeological investigations have unearthed evidence of an early dwelling house about 100 meters from where the great house stands today. Three 25 cm post holes and a possible cellar indicate that the original dwelling house was a simple post-in-ground structure similar to those that have been found on English colonial settlement sites in North America, especially in the Chesapeake (Carson *et al.* 1981). Another likely post-in-ground structure has been identified in Barbados at an early seventeenth century context in Jubilee Gardens in Bridgetown, and that structure also had a shallow cellar (Smith 2004; Smith 2005; Smith and Watson 2007; Smith and Watson 2009). And Douglas Armstrong and Matthew Reilly (2014) note the possible presence of a post-in-ground structure at Trents Plantation in St. James. The archaeological evidence indicates that the post-in-ground house at St. Nicholas Abbey had a basic wooden frame structure inlaid with coral rubble stones and coated with a clay and/or lime plaster. Imported bricks were also recovered at the site, and they may have been used specifically to create even frames around windows and doorways. The roof was covered with both flat and curved unglazed red earthenware roof tiles.

It is not clear whether the structure served as a dwelling house for Yeamans and/or Berringer during the early days of settlement of the estate. Indentured servants from England, Scotland, Ireland, and Wales were the bulk of the labor force during the first two decades after the settlement of Barbados by the English in 1627. They cultivated tobacco, indigo, ginger and cotton on small farms on the south and west coast, and many of those that survived became farmers, tradesmen, seamstresses, and domestics. Katherine Scott, one of the women to testify at the inquiry of Berringer's will, was a female servant that Berringer had brought from England in 1656. The Yeamans too were also contracting servants throughout the 1650s, including some that would later travel with them to South Carolina. Post-in-ground structures were common among all classes in the early years of settlement in the English colonies and it is possible the post-in-ground structure housed indentured servants. However, the artifacts recovered from the dwelling hint at a wealthier household and, therefore, a possible association with the Yeamans/Berringer families.

The artifacts recovered from the site are consistent with the types of colonial-era artifacts found at early English colonial sites other seventeenth century sites in Barbados and in North America that date to the first half of the seventeenth century (Smith 2001). The ceramics consisted of plain lead-glazed earthenware, including

varieties of North Devon earthenware with graffito decoration. There were also several slip-decorated wares from Staffordshire. The 43 pieces of tin-enamel glazed earthenware from Holland, popularly known as delft, represented the majority of refined earthenware ceramics recovered at the site. The disproportionate amount of delft may reflect the strong influence of Dutch traders in the early years of settlement in Barbados prior to the enforcement of the Navigation Acts in the 1650s, which curtailed Dutch trade to the island.

Dutch colonists, such as Constant Silvester, shaped political discourse and cultural developments in the initial years of Barbadian settlement (Smith 1998). Heavy concentrations of delft, including English-made varieties, have been found archaeologically at early colonial settlement sites in Bridgetown and Holetown (Smith 2001; Smith and Watson 2009). Dutch traders and Dutch colonists may have spurred the particular demand for tin-enamel glazed earthenware in early Barbados for both practical and aesthetic reasons. Fragments of white clay tobacco pipe stems and bowls also predate the 1650s. There are a few artifacts indicative of wealth, including a few pieces of porcelain and part of a brass escutcheon from what was likely a fine piece of furniture brought over from England. The site also contains a heavy concentration of medicine-related materials, including hand-blown glass vial fragments and portions of a delft medicine pot. Early colonists in these remote areas of the island had to care for themselves. Among the more interesting medicinal finds were pieces of red amber, which had been used a popular cure-all, especially for stomach illnesses, in Asia and Europe since ancient times (figures 6.2-6.8).

Other interesting finds included several lead musket balls. Berringer was a member of the Barbados militia, and in 1651 he helped repulse the forces sent by Cromwell to pacify the Royalist leaders of Barbados. Yeamans' eldest son William was also a Major in the militia. The original post-in-ground house appears to have remained standing for many decades after the great house was built. It appears to have been destroyed quickly, perhaps by a tropical storm, sometime before the 1720s based on the absence of any eighteenth century pottery, especially white salt glazed stoneware. The estate experienced significant financial trouble during the first two decades of the 1700s under the ownership of George Nicholas. In the 1710s, falling sugar prices and mismanagement led the estate to overwhelming debt eventually totaling more than £20,000 (Kennedy Papers). It was during Nicholas' tenure as owner that the estates second windmill fell into disrepair and it appears likely that the post-in-ground building also fell out of use during this time.

## **Away from the Great House: Archaeologies of Enslaved and Free Workers**

The primary focus of the documentary and archaeological research program over the past 12 years has been on the lives of enslaved peoples and post-emancipation tenant laborers on the estate. The earliest reference to enslaved workers at St. Nicholas Abbey is from Sir John Yeaman's will of 1674 in which Yeaman's left to his wife Margaret four individuals, including Old Hannah and her children Jupeter, little Tony, & Joane. Hannah was likely a longstanding domestic caretaker of the Yeamans, and she and her children appear to have gone with the Yeamans to South Carolina (Read 1910).



Figure 6.2. Brass Buckle (Frederick Smith).



Figure 6.3. Fragments of tin-enamel-glazed earthenware drug pot (Frederick Smith).

There were certainly many more enslaved workers on the estate at this time. The 1680 census indicates that there were 108 enslaved peoples working on the estate and 5 indentured servants. That year, according to Dunn (1972:95-97), the wealthiest 175 planters represented only 7% of the island's property owners, but they owned more than half of the 38,782 enslaved peoples in Barbados. Those 175 planters owned on average 116 enslaved workers each. In St. Peter alone, there were 248 property owners and 3,977 enslaved peoples. Thus, nearly 3% of all the enslaved peoples in St. Peter in 1680 lived and worked at St. Nicholas Abbey. A deed from 1693 identifies the names of 157 enslaved workers on the estate (Deed Books RG 36/14). There were 70 men,



Figure 6.4. Brass escutcheon (Frederick Smith).



Figure 6.5. Glass medicine vials (Frederick Smith).

52 women, 22 boys, and 13 girls. Some of the oldest individuals identified on the list were not born in Barbados and may have been brought to Barbados directly from Africa. Some, including Coffey and Old Quaney, had African day names, which may be an indication of their African birth. Others, such as Judy Malagasee, identify particular African ethnic groups. The list also identifies Mary Carolina and Tobey Carolina, who may have been born on Yeaman's estate in South Carolina. It is also possible they were not of African descent, but rather Native peoples from South Carolina enslaved and brought to Barbados during the early years of Yeaman's forays in North America.

Information about the enslaved workers on the estate in the eighteenth century is rather sparse. In 1727, there were 130 enslaved workers at St. Nicholas Abbey. The decrease in population from 1693 may be the result of George Nicholas selling off members of the enslaved workforce to cover his debts (Kennedy Papers). In 1746, Sir





Figure 6.6. Lead musket ball (Frederick Smith).



Figure 6.7. Red amber (Frederick Smith).

John Gay Alleyne acquired the estate and in 1788 he is identified as owning 188 enslaved peoples in St. Peter ([www.ucl.ac.uk/lbs/person/view/-39601568](http://www.ucl.ac.uk/lbs/person/view/-39601568)). Most, if not all, worked at St. Nicholas Abbey. During Alleyne's tenure, therefore, slaveholdings on the estate increased considerably as a result of the purchase of new enslaved workers. One enslaved individual identified in Alleyne's will is Henry Buckingham. Among the first edicts outlined in Alleyne's will was 'Emancipate my old and faithful slave Henry Buckingham and give him an annuity of £16.' Freeing slaves was permitted, but it was frowned upon by the plantocracy. Despite his intention to free Buckingham, Alleyne was eventually forced to rescind his request and amend his will because the 'Legislature of this Island have increased by act the fine upon freeing slaves to such an amount as may make it inconvenient for my estate to afford.' Although Buckingham's legal status remained that of a slave, he was to receive his annuity of £16. Moreover, Alleyne bequeathed Buckingham to his eldest surviving son Reynold to ensure his protection and 'exempt him from the hand and direction of the executors and trustees. Alleyne also bequeathed to Buckingham a trunk of 'laced and embroidered cloths' as well as all the 'loose clothes' about his chamber (Brandow 1983:44-45).

Plantation slave registries from St. Nicholas Abbey provide extensive information about the structure of the estate's enslaved population in the last two decades before emancipation. In 1817, the estate's enslaved population consisted of 79 men (15 were boys under the age of 10) and 94 women (27 were girls under the age of 10). There are only two individuals listed as being born in Africa while the rest were born in Barbados.



Figure 6.8. Moore Hill 'slave hut' (Frederick Smith).



Figure 6.9. Examples of gaming discs from Moore Hill 'slave hut' (Frederick Smith).

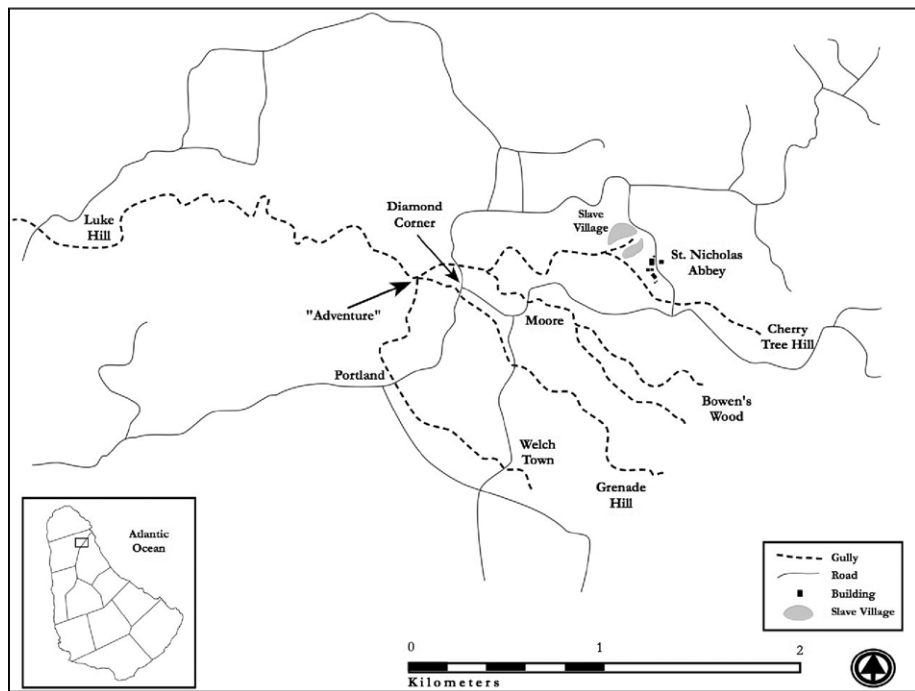


Figure 6.10. Regional Map showing location of St. Nicholas Abbey great house, village, Moore Hill, and the gully system.

In addition, 13 are identified as mixed race. In 1834, during the final year of slavery in Barbados, the plantation manager Thomas Harding signed the slave registration for the recently deceased owner Lawrence Trent Cumberbatch. That year there were 184 slaves, including 83 men and 101 women. Of the enslaved peoples on the list in 1834, 8 were identified as domestics including 7 women and 1 man. The rest were noted as laborers. Indeed, field laborers always made up the bulk of the estate's workforce. Men were also placed in skilled positions. In 1828, men were listed as carpenters, masons, carters, coopers, herdsmen, and basket makers. By the time most boys reached the age of 7 or 8, they were put to work as grass pickers in what was known as the 'third' or 'children's gang.' Women were also mostly field laborers, but they are also listed as cooks, nurses, dairymaids, and washerwomen.

One of the first goals of the archaeological research program at St. Nicholas Abbey was to locate the estate's slave village. While many of the great houses in Barbados are still standing, the slave dwellings have all but disappeared from the landscape. There is only a handful of what are known as slave huts (former slave dwellings), still standing in Barbados today. Most of the former slave dwellings have been reclaimed by nature or destroyed by modern development, and the locations of many former slave villages have simply been forgotten. Though discussions of slavery were not central to the tours at St. Nicholas Abbey in its early years as a tourist destination, Colonel Stephen Cave recognized the importance of preserving the historical structures of the slavery period. Just off the winding road that leads to the main entrance of St. Nicholas Abbey in the

village of Moore Hill is a small coral rubble 'slave hut' that has been part of the St. Nicholas Abbey property for as long as anyone can remember (Figure 6.8).

Time and the rapid pace of commercial and residential development in Barbados have destroyed nearly all of these houses, which were once ubiquitous on the Barbadian landscape. Based on archaeological findings, including fragments of pearlware and whiteware ceramics, as well as fragments of hand-blown black glass bottle, the slave hut at Moore Hill was in use during the late eighteenth and early nineteenth centuries. Archaeological excavations around the structure revealed ceramic gaming discs made from broken bits of imported English pottery, cowry shells, and beads similar to those found sites of enslaved peoples in other parts of the New World (Figure 6.9). While it may have been used during the slavery period, linking the house to enslaved workers is more difficult because there is no evidence of other stone buildings in this area. The house, it appears, may have stood alone. Although these are commonly referred to slave huts, poorer classes of whites and other non-elites of the plantation probably also lived in these types of structures. Indeed, the small coral rubble house in Moore Hill may have once housed the families of white militia members, freedmen and women, or rangers and other high-ranking enslaved peoples who worked on the estate. The house was damaged during hurricane Tomas in 2010, but has been repaired and renovated. Today, it is a key fixture of heritage interpretations at St. Nicholas Abbey.

When I began the archaeology program at St. Nicholas Abbey in 2006, I was particularly interested in building on my earlier research on the use of caves by enslaved peoples (Smith 2008). Staff and workers at St. Nicholas Abbey knew of caves in the gully that runs along the western edge of the estate. My students and I walked through the gully identifying several caves that did, in fact, possess early historic-period material culture, such as pottery, glass, and iron. The disproportionate amount of early colonial glass bottle fragments found in these caves indicates that alcohol drinking was one of the primary activities that occurred at the cave sites. Alcohol was widely available on sugar estates. Planters and plantation managers doled out rum as part of weekly rations, for medicinal purposes, and as a work incentive.

Enslaved peoples also made fermented alcoholic drinks from sugarcane juice that mirrored the palm wine and grain beers that enslaved peoples and their ancestors made in Africa (Smith 2005). Enslaved peoples were banned from taverns and rum shops forcing them to meet and drink clandestinely. The caves in the gully near St. Nicholas Abbey offered enslaved peoples from the estate, as well as from the surrounding estates of Portland, Castle, Pleasant Hall, Welchtown, Boscoebell, and other estates a place to drink, socialize, and temporarily escape the challenges of plantation life. Caves were subterranean sanctuaries far removed from the watchful eyes of plantation owners and managers. The gullies themselves acted as conduits and corridors between neighboring plantations (Figures 6.10 and 6.11). They allowed enslaved peoples from neighboring plantations to move through the landscape undetected and maintain community networks between family and friends on neighboring estates. Alcohol, as a social lubricant, helped integrate members of the community, reinforce friendships, and strengthen community bonds. The caves provided the shelter and space to engage in drinking (Smith and Bassett 2016).

On the edge of the gully along a narrow cart road is a barren rocky ridgeline covered in thick sour grass called Crab Hill. There were numerous large piles of coral stones on the ridgeline of a relatively consistent size and shape. The workers on the estate and





Figure 6.11. Examples of refined earthenware ceramics from Crab Hill (Frederick Smith).



Figure 6.12. Fragments of glazed and unglazed red earthenware pottery from Crab Hill (Frederick Smith).



Figure 6.13.  
Brass regimental medallion  
(Frederick Smith).

people from the surrounding villages today call these areas *cossie grounds*. On the ground surface were fragments of late eighteenth and nineteenth century ceramics, as well as fragments of black glass bottles. It quickly became clear that this was the location of St. Nicholas Abbey's slave village and post-emancipation tenantry, and that the piles of stone were the remains of the many former slave huts that once stood along the ridgeline.

In the summer of 1987, Jerome Handler brought a team of archaeology students to St. Nicholas Abbey (1989). Their objective was to locate the estate's slave burial ground and record information about plantation slave life at St. Nicholas Abbey. Handler's project stemmed from his earlier study of mortuary practices and human skeletal remains from Newton Plantation in the Parish of Christ Church (Handler and Lange 1978). The 1987 project sought to build on the Newton study and to create predictive models for locating slave burial grounds. Handler and his team also surveyed a number of other plantations in Barbados during that project, including Hanson, Guinea, Malvern, and Bissex Parks. Although Handler and his team were unable to locate a slave burial ground at St. Nicholas Abbey, their investigations included a brief archaeological survey and some shovel testing of named plantation fields, as well as documentary and ethnographic research of the property. Handler (1989:42) had noted this area along the ridgeline and wrote:

*'This grass piece contained a scattering of apparent stone mounds, which several informants reported as the remnants of about three or four old stone houses.'*

The 'houses' were ascribed to the post-emancipation tenantry period of the plantation, which was largely outside the focused interests of Handler's study. Archaeological investigations of the site in 2007-2008, and 2014 led to the discovery of a large amount of late eighteenth and nineteenth century material culture and the conclusion that Crab Hill was the location of the estate's slave village and post-emancipation tenantry.

The site was located on a ridge called Crab Hill on the edge of what is known as *Negroe Yard* field. Every large plantation during the slavery era had an area set aside for a slave village. The areas were typically called 'Negroe yards' or simply Yards. Handler conducted extensive research on plantation field names in Barbados, including the field names at St. Nicholas Abbey. He argued that the name *Negroe Yard* (or variations of that name) on sugar plantations indicated the likely location of slave villages (Handler 2002). An archaeological survey of the field uncovered a great deal of material culture, including late-seventeenth and early-eighteenth-century ceramics, which indicated that the original slave village at St. Nicholas Abbey was in fact located in the 'Negroe Yard' field close to the factory and mill. The original slave huts would have been simple wattle and daub structures, which explains the absence of coral stone piles in the *Negroe Yard* field. Most of the ceramic types found in *Negroe Yard* dated to before 1750 indicating that the original slave village moved to the ridgeline on Crab Hill sometime during the second half of the eighteenth century. Perhaps as the enslaved population on the estate increased the village expanded to include the ridgeline at Crab Hill. In addition, the soils on the ridgeline were too poor for growing sugarcane. Moving the village to the rocky ridgeline at Crab Hill freed up good arable soil for growing sugarcane in the location of the original slave village.

It was during the late eighteenth century when the dwelling houses for enslaved peoples on the estate were moved from the *Negroe Yard* field to the ridgeline on Crab Hill. Also, at this same time, slave dwellings switched from being simple wattle and daub structures to more solid and substantial coral stone structures mortared together with lime plaster. The construction of stone dwellings on the ridgeline appears to have been part of a broader late-eighteenth-century effort by Sir John Gay Alleyne to improve the material conditions of enslaved workers at St. Nicholas Abbey. The increasing momentum of the abolitionist movement in the late eighteenth century forced British planters in the Caribbean, including those in Barbados, to adopt policies aimed at improving the conditions of enslaved peoples on their estates. Scholars of slavery often refer to this time as the amelioration period (Ward 1988). By the late eighteenth century, Barbadian planters could see the writing on the wall. The African slave trade would soon be abolished, which it was in 1807. Amelioration efforts were driven in large part by concerns with maintaining a stable labor force. By the end of the eighteenth century, Barbados had a naturally increasing slave population, which eliminated the need for the importation of new enslaved Africans. In fact, by 1817 only two of the 173 enslaved workers at St. Nicholas Abbey were born in Africa. Many Barbadians, therefore, welcomed the abolition of the slave trade in 1807 because it meant that planters in the competing sugar-producing islands, such as Cuba and Trinidad, which still relied heavily on imports of new enslaved African workers, would not be able to maintain their labor force.

According to Stephanie Bergman (2010), Alleyne's motives for improving the material conditions of slavery at St. Nicholas Abbey were not driven solely by the economics of the slave trade (see also Bergman and Smith 2014; Smith and Bergman 2014).

Alleyne embraced progressive enlightenment ideals of the mid-eighteenth century that reinforced paternalistic policies aimed at fostering a healthy and productive estate. Moreover, Alleyne, along with many of his fellow planters, also sought to quell the concerns of Parliament in the face of an increasingly powerful anti-slavery movement in Britain by attempting to highlight the paternalism and benevolence of Barbadian slave owners. In 1786, Sir Phillip Gibbes and eight other Barbadian planters published a treatise on plantation management entitled *Instructions for the Management of a Plantation* (Lascelles *et al.* 1786). In it they stressed pro-natalist policies, increased food rations, greater allotments of land for food production, and moderate workloads.’ That same year, Gibbes, a colleague of Alleyne, published an anonymous treatise of his own, entitled *Instructions for the Treatment of Negroes*, with an enlarged second edition in 1797. There too Gibbes advocated for paternalistic policies, and he also sought to showcase the parallels between enslaved peoples in the Caribbean and factory workers in Britain. Rather than seeking the moral improvement of the enslaved through religious instruction, Gibbes believed that a carefully designed work regime and better living conditions would create a healthy workforce and prosperous plantation society. Moreover, by adopting progressive enlightenment ideals, publishing paternalistic doctrines, implementing ameliorative policies, and comparing the experience of enslaved laborers with British workers, the planters of Barbados sought to quiet anti-slavery discourse and highlight Barbadians as moral reformers whose efforts to improve the conditions of slavery mirrored poor law reforms in Britain. The improvement to slave housing at Crab Hill is an example of those policies.

The ceramics recovered from the slave village on Crab Hill also shed light on amelioration efforts, as well as the maintenance of West African traditions. We recovered thousands of sherds of early colonial ceramic that included a variety of locally-made coarse earthenware and imported refined earthenware (figure 6.12). The coarse earthenware included glazed and unglazed bowls and jars used for water storage and food preparation. One form that was particularly common at Crab Hill was the *conaree*, a traditional Barbadian storage or cooking pot. The heavy concentration of red earthenware pottery fragments at Crab Hill highlights the survival of West African cooking practices in Barbados. These vessels were well-suited for producing stewed foods similar to the types of stewed foods found in the many West African villages that served as the departure points for enslaved peoples of Barbados. The large number of fragments of small individual serving bowls made of refined imported earthenware at Crab Hill attests to not only the production of stewed foods, but perhaps also their consumption. Drawing on ceramic evidence in the DAACS database, Camille Chambers (2016) showed that the frequency of hollowware vessels was consistent with slave village sites in North America, including sites at Monticello in Virginia and Middleburg Village in South Carolina. While there was no porcelain recovered from the slave village on Crab Hill, the increasing presence of mass-produced refined earthenware, including shell-edged pearlware and annular-decorated whiteware designed by Wedgwood potteries and imported from Britain, may have also been part of amelioration efforts to improve material conditions for enslaved workers at St. Nicholas Abbey in the late eighteenth and early nineteenth centuries.

Among some of the more interesting finds were cowry shells. While some of these cowries were native to Barbados and can be found on the shoreline, others were from the Indian Ocean. Cowries are fairly common finds at the sites of enslaved peoples in



the Americas. Cowries were used in many different parts of West Africa that became departure points for enslaved peoples to the British colonies in the Americas. In West Africa, cowries were used as currency and as forms of adornment. The discovery of native cowries at Crab Hill underscores how enslaved Barbadians, lacking access to their traditional Indian Ocean cowries, adapted their traditions of adornment in their new environment by replacing them with local varieties. Glass beads are also a common find on the sites of enslaved peoples in the New World. They too were used as trade items and forms of adornment, and we recovered several glass beads during excavations at Crab Hill. One unusual find was a brass medallion that bears the image of a horse and a crown that appears to be an insignia for a British military or cavalry regiment (figure 6.13). The medallion, which has clasps in the back, may have been a piece of horse furniture, such as a regimental bit boss or breast plate, that fell from a soldier's horse and later claimed by someone in the village.

The village on Crab Hill did not cease to exist after emancipation in 1834, as many of the former enslaved peoples who worked at St. Nicholas Abbey remained on the estate. Barbados is a small island and there were simply few areas for former slaves to go after emancipation. In the larger and less densely populated islands, such as Jamaica and Antigua, former slaves, often with the help of Baptist, Methodist, and Moravian missionaries, acquired small plots of land and became peasant farmers. Because of its small size and because nearly every inch of arable land was owned by large planters, former slaves in Barbados had few opportunities to leave the plantations and establish their own farms and independent communities. The former slave village at Crab Hill became a tenantry for free workers. The ceramics and other artifacts indicate that people were living on the site well into the twentieth century. In fact, oral histories indicate that at least two of the coral stone slave huts on the ridgeline of Crab Hill were standing and occupied as recently as the 1960s. Thus, the artifact assemblage from the ridge gives us a rare opportunity to see the material changes that occurred in Barbados during the transition from slavery to freedom.

Two categories of artifacts stand out particularly strong during the post-emancipation tenantry period. There is a high concentration of stoneware inkwells and writing slates in the post-emancipation contexts on Crab Hill. These artifacts highlight the growing importance of education in the post-emancipation era. In fact, Alleyne's emphasis on education, evident in the founding of the Sanctuary, a school in Belleplaine, St. Andrew just a short distance from St. Nicholas Abbey, suggests that the emphasis on education may have even begun during the amelioration period before emancipation. The inkwells and writing slates indicate that former slaves placed a great emphasis on education and made concerted efforts to take charge literacy. Education was an arena for upward social and economic mobility in Barbados. The education-related artifacts recovered in post-emancipation archaeological contexts at Crab Hill are evidence that Barbadians pursued education soon after they gained their freedom (Devlin 2008). The other category of artifacts that stands out during the tenantry era is healthcare. We recovered a sizeable number of patent medicine bottles dating to the second half of the nineteenth century. Patent medicines became increasingly popular throughout the Atlantic world in the late nineteenth century, and their popularity extended to Barbados. The heavy concentration of them in post-emancipation archaeological con-

text on Crab Hill show the way that former enslaved workers took charge of their health, especially in these more rural areas (Mocklin 2009).

## Conclusion

The role of archaeology in heritage and cultural tourism requires a people-centered approach that highlights the diversity of voices within a community. Heritage sites also have a responsibility to provide for the opportunity to construct and contest the meaning of heritage within a dynamic context of a functioning heritage site. As a premier heritage site in Barbados, St. Nicholas Abbey has an important role to play in the development of sustainable heritage tourism. Since 2006, the historical and archaeological research has sought to highlight the inclusivity of heritage by focusing attention on the lives of peoples overlooked in traditional heritage contexts. Colonel Stephen Cave recognized the need for inclusive preservation efforts that included enslaved and free plantation workers. He preserved one of the few remaining ‘slave huts’ in Barbados and restored a remarkable film on plantation life on the estate in the early twentieth century. New ownership of the estate in 2006 has expanded efforts at producing a modern heritage site that speaks to the broader discussions of slavery, colonialism and capitalism in the broader Atlantic world. Moreover, many of the current employees at St. Nicholas Abbey are from the communities and villages surrounding the property, and their voices are an important part of the estate’s history. Historical and archaeological research on the site is providing a more complete picture of the estate’s social history and serving as a launch pad for future discourse on heritage in a post-colonial era. Media has played a key role in this process, and the research program at St. Nicholas Abbey has resulted in documentaries, television interviews, newspaper reports, public presentations, and professional publications from graduate students and researchers. The establishment of an interpretive archaeology museum on the site will further add opportunities for discussion about Barbadian heritage and Barbadian identity in the twenty-first century.

## References

- Armstrong, D. and M. Reilly.  
2014 The archaeology of settler farms and early plantation life in seventeenth-century Barbados. *Slavery & Abolition* 35/3:399-417.
- Bergman, S.  
2010 Building freedom: nineteenth-century domestic architecture on Barbados sugar plantations. MA Thesis, College of William and Mary.
- Bergman, S. and F. Smith.  
2014 Blurring disciplinary boundaries: the material culture of improvement during the age of abolition in Barbados. *Slavery and Abolition* 35/3: 418-436.

- Brandow, J.  
1983 *Genealogies of Barbados Families* from Caribbeana and the Journal of the Barbados Museum and Historical Society. Genealogical Publishing Company, Baltimore.
- Bridenbaugh, C. and R. Bridenbaugh.  
1972 *No Peace Beyond the Line: The English in the Caribbean 1624-1690*. Oxford University Press, Oxford.
- Campbell, P.  
1993 *Some Early Barbadian History*. Caribbean Graphics and Letchworth Press, Bridgetown, Barbados.
- Carson, C., N. Barka, W. Kelso, G. Stone and D. Upton.  
1981 Impermanent architecture in southern American colonies. *Winterthur Portfolio* 20:38-46.
- Chambers, C.  
2016 Afro-Barbadian Foodways: Analysis of the use of ceramics by Afro-Barbadian enslaved workers. M.A. Thesis, College of William and Mary.
- Deed Books, Barbados Department of Archives.
- Devlin, S.  
2008 Education, Literacy and Ink Pots: contested identities in post- Emancipation Barbados. MA Thesis, College of William and Mary.
- Di Giovine, M.  
2017 Anthropologists weigh in on the sustainability of tourism. *Anthropology News* (publication of the American Anthropological Association) 8/14:1-7.
- Drewett, P.  
1991 *Prehistoric Barbados*. Archetype Publications, London.
- Dunn, R.  
1972 *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624-1713*. W.W. Norton, New York.  
2000 The English sugar Islands and the founding of South Carolina. *The South Carolina Historical Magazine* 101/2:142-154.
- Fewkes, J.  
1915 Archaeology of Barbados. In *Proceedings of the National Academy of Sciences of the United States of America* 1/1:47-51. Williams and Wilkins Company, Baltimore.
- Gibbes, P.  
1786 *Instructions for the treatment of Negroes, etc., etc., etc.* London, reprint with additions 1797.

- Handler, J.  
2002 Plantation slave settlements in Barbados, 1650s-1834. In *In the shadow of the plantation: Caribbean history and legacy. Essays in Honor of Woodville Marshall*, edited by A. Thompson, pp. 121-158. Ian Randall, Kingston.
- Handler, J., M. Conner and K. Jacobi.  
1989 *Searching for a Slave Cemetery in Barbados, West Indies: A Bioarchaeological and Ethnohistorical Investigation*, Southern Illinois University at Carbondale Center for Archaeological Investigations, Research Paper No. 59.
- Handler, J. and F. Lange.  
1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. Harvard University Press, Cambridge, Mass.
- ICOMOS  
2015 *Policy For The Integration Of A Sustainable Development Perspective Into The Processes Of The World Heritage Convention*, ICOMOS, Paris.
- Kennedy Papers, William L. Clements Library, University of Michigan.
- Lascelles, E. *et al.*  
1786 *Instructions for the Management of a Plantation in Barbadoes and for the Treatment of Negroes*. London.
- Ligon, R.  
1673 *A True & Exact History of the Island of Barbados*. Miller, London.
- Mocklin, K.  
2009 Afro-Barbadian healthcare during the Emancipation era. M.A. Thesis, College of William and Mary.
- Read, M.  
1910 Notes on some colonial governors of South Carolina and their families. *The South Carolina Historical and Genealogical Magazine* 11/2:107-122.
- Schomburgk, R.  
1848 *The History of Barbados*. Longmans, London.
- Smith, F.  
1998 Disturbing the peace in Barbados: Constant Silvester of Constant Plantation in the seventeenth century. *Journal of the Barbados Museum and Historical Society* 44: 38-54.  
2001 Volatile Spirits: The historical archaeology of alcohol and drinking in seventeenth century Barbados. Ph.D. Dissertation, University of Florida.  
2004 Hometown: archaeological investigations at the site of the first British settlement in Barbados. *Journal of the Barbados Museum and Historical Society* 50:49-65.  
2005 *Caribbean Rum: A Social and Economic History*. University Press of Florida, Gainesville.  
2006 European impressions of the Island Caribs' use of alcohol in the early colonial period. *Ethnohistory* 53/3:543-566.  
2008 *The Archaeology of Alcohol and Drinking*. University Press of Florida, Gainesville.

- Smith, F. and H. Bassett.  
2016 The role of caves and gullies in escape, mobility, and the creation of community networks among enslaved peoples of Barbados. In *Archaeologies of Slavery and Freedom in the Caribbean: Exploring the Spaces in Between*, edited by L. Bates, J. Chenoweth, and J. Delle, pp. 31-48. University Press of Florida, Gainesville.
- Smith, F. and S. Bergman.  
2014 The spaces in between: archaeological investigations at St. Nicholas Abbey sugar plantation. In *Bitasion: Archéologie Des Habitations-Plantations Des Petites Antilles-Lesser Antilles Plantation Archaeology*, edited by K. Kelly and B. Bérard, pp. 127-145. Sidestone Press, Leiden.
- Smith, F. and K. Watson.  
2007 Western Bridgetown and the butchers' shambles in the seventeenth – nineteenth centuries: new insights from the Jubilee Garden archaeological investigations. *Journal of the Barbados Museum and Historical Society* 53:185-198.  
2009 Urbanity, sociability, and commercial exchange in the Barbados sugar trade. A comparative colonial archaeological perspective on Bridgetown, Barbados in the seventeenth century. *International Journal of Historical Archaeology* 13/1:63-79.
- Ward, J.  
1988 *British West Indian Slavery, 1750-1834: The Process of Amelioration*. Clarendon Press, Oxford.
- Waterman, T.  
1945 Some early buildings in Barbados. *The Art Bulletin* 27/2:146-149.



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# Trents Plantation: Small-Farm to a Landscape of Power and Enslavement

*Douglas V. Armstrong*

## **Abstract**

Archaeology at Trents Plantation explores the shift from small-farm to sugar, slavery, and capitalism in Barbados. Trents was one of the initial plantations established by pioneer colonists in 1627. In the late 1640's, the site and much of Barbados, underwent a dramatic shift associated with the emergence of agro-industrial sugar production, slavery, and a capitalistic economic base. This paper focuses on the material record from two activity loci. Locus 1 includes the planter's house. Materials recovered from Locus 1 provide details of pre-sugar era life, including a paucity of possessions owned by planters and laborers. This same deposit contains an abundance of costly materials discarded by the planter household from the 1650s through the period of slavery. Data from the enslaved laborer settlement (Locus 2) provide evidence of a sharp contrast in the lives and conditions of planter and enslaved laborer. They also demonstrate creative use of relatively meager resources by those who were enslaved.

**Keywords:** *enslaved, indentured, small-farm, plantation, sugar, slavery, capitalism.*

## **Introduction**

Archaeological and historical research at Trents Plantation, St. James Parish, is examining changes in the cultural landscape of Barbados from the era of initial colonial settlement to the present. Trents, initially called 'Fort Plantation', was one of five pioneer farms established when Barbados was settled by English colonists in 1627 (Harlow 1925) (Figures 7.1-7.2). Excellent preservation of archaeological remains has allowed exploration of living contexts associated with a small, pre-sugar era, tobacco, cotton, and provisioning farm. Beginning in the late 1640's, the site and much of Barbados, underwent a dramatic shift associated with the emergence of agro-industrial sugar

production, slavery, and a capitalistic economic base. The study draws on an array of well stratified, and spatially defined, deposits associated with planters and laborers. Initially the laborers were primarily Europeans contracted under terms of indenture; but with the shift to sugar production the need for labor expanded and the plantation system quickly shifted to a reliance on large numbers of enslaved laborers from African (Armstrong and Reilly 2014; Armstrong 2015a). The significance of Barbados to the rise of the plantation system in the Americas has been well-chronicled (Beckles 2006; Dunn 1972; Higman 1998; Newman 2013; and Williams 2005 [1944]), and later period plantation sites in Barbados have been the subject of intensive investigation by archaeologists (Handler and Lange 1978. Handler *et al.* 1989; Loftfield 2001; Finch *et al.* 2013). However, studies of the materiality of the period of slavery in Barbados have been limited.

The Trents study explores three activity loci. Locus 1 includes the planter's house yard and works; including a complex set of deposits dating from 1627 to the present that demonstrate aspects of the dramatic shift to sugar (Figures 7.3 and 7.4). Locus 2 is the site of estate's enslaved laborer settlement. This area housed an expanding number of enslaved laborers from Africa beginning with the shift to sugar production during the late 1640s-early 1650s. The settlement was occupied through the period of slavery, but was abandoned at emancipation (1838).<sup>1</sup> After emancipation a new, free laborer tenantry settlement, was constructed away from the core plantation works complex.<sup>2</sup> In addition, a cave and rock shelter, Locus 3, site was found hidden behind a canopy of vines at the bottom of the gully between the village and the mansion house. The cave and shelter project an intriguing level of complexity and social expression in its specialized long-term, recurrent, use (spanning at least the 1740s to the 1850s). The material culture found in the cave show a decided focus on iron and steel. The cave is interpreted as both a shrine and a possible site of resistance site (see Armstrong 2015b. 2019).<sup>3</sup>

This study has generated a collection of more than 25000 artifacts, along with dietary bone and shell, and ethnobotanical remains. More than half the artifacts are ceramics (n=13285) of which 6404 are imported refined ceramics and 6881 are a combination of domestic and industrial coarse earthenware sherds (Tables 7.1 and 7.2).<sup>4</sup> Glass accounts for 5277 of the artifacts. There are 1460 nails and 387 tobacco pipe fragments. Small finds (n=221) include a wide variety of everything from hinges to flint strike-a-lights, furniture handles, straight pins. Glass beads (n=9) and faceted stones (n=2) are also present.

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1 British Parliament passed the *Slavery and Abolition Act* in 1833. This act came into effect on August 1, 1834, but full emancipation in Barbados did not take place until after the completion of a protracted period of apprenticeship on August 1, 1838.

2 The study includes photographic documentation of contemporary houses in Trents Tenantry. A community that is currently undergoing rapid change associated with the development of Barbados's coastal zone in the Holetown, St. James area.

3 I introduce the cave here simply to identify it as part of the plantation's overall cultural landscape. Findings related to the cave and shelter are presented in a separate paper as they deserve detailed, independent, consideration.

4 Table 1 includes only ceramics and glass from Locus 1 and 2 as it is the focus of this paper. The overall totals include data from Trents Cave (Locus 3).



## Background

This study began in 2011 as a search for archaeological sites and historical records that shed light on the pre-sugar era and the shift to sugar. When the study began, I did not know of Trents Plantation, and the estate was off everyone's historical radar screen. As early as 1993, I accompanied Jerome Handler looking at enslaved laborer housing areas on Barbadian sugar plantations. The survey with Handler included a re-examination of potential village sites on estates previously studied by Handler. We walked fields at St. Nicholas Abbey (St. Peter), Drax Hall and Drax Hope Plantation (St. George), Guinea (St. John), and Newton Plantation (Handler and Lange 1978; Handler *et al.* 1989). I had come to Barbados to explore enslaved laborer village sites after having had success identifying and excavating laborer houses and yards at Drax Hall and Seville Plantation in Jamaica (Armstrong 1990; 2011).

In his surveys of Barbadian plantations in the 1970s and 1980s, Handler had examined fields labeled as laborer villages on plantation maps. However, the sites that he examined had been plowed and he was concerned about their integrity. After walking the fields, I was convinced that these fields were former villages and that they still contained important evidence of domestic life under conditions of enslavement. I planned to shift my research focus from Jamaica to Barbados for three reasons. First, I was interested in culture change, and Barbadian sugar plantations date to the beginning the mid-seventeenth century sugar revolution in the Caribbean. Second, I was particularly interested in Drax Hall, Barbados, as it predated a plantation owned by descendants of the Drax family in Jamaica that I had studied. Finally, while doing archival research on Drax Hall, Jamaica, I found an early treatise for the management of Drax Hall, Barbados. This manuscript was written by Henry Drax in Barbados and apparently carried to Jamaica by his nephew William Drax, who may have used it as a guide when establishing Drax Hall, Jamaica (Armstrong 1990:56; Drax 1674; Thompson 2009).<sup>5</sup> I felt that the details on plantation life presented in the treatise, along with details presented on Drax Hall and Barbados in Richard Ligon's *A True and Exact History of Barbados* (1657), would provide an excellent starting point for the study of early plantation life in Barbados, and the Caribbean.<sup>6</sup>

Focusing on early sugar plantations in Barbados, I directed a field school in the summer of 1994 examining records at the Barbados Department of Archives. The research team also carried out preliminary field surveys. The surveys positively confirmed the survival of enslaved laborer settlements, including sufficient material remains and quality of context, at several plantations including Drax Hall and St. Nicholas Abbey. I decided to proceed with studies of Drax Hall because of the linkages of Drax estate to my earlier studies in Jamaica, excellent preservation of the plantation landscape, and outstanding documentation. In particular, this documentation includes a series of detailed maps dating back to 1719. These maps show the location of 'negroe houses' on either side of the estate's entry road in the location described in Henry Drax's early

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5 This record is the original version of Henry Drax guide to management of a plantation. While attributed to Jamaica and found among William Drax's documents at the Bodleian Library, Oxford, in reading the document I quickly realized based on references carting sugar to 'the bridge' (Bridgetown) that it was referring to the management of Drax Hall, Barbados (Drax 16740).

6 As originally designed, the field program was also going to involve a reexamination of the Newton Plantation Cemetery.

treatise on estate management (Drax 1674). With permission of the plantation manager, we carried out a pedestrian survey of one of the plowed cane fields where a village was plotted on the early maps. This survey confirmed the presence of clusters of seventeenth through early nineteenth century domestic material remains. Unfortunately, soon after the survey began the manager received word from the plantation owner in England asking us not to continue our work. Thus, the formal survey came to an abrupt halt. Difficulty in getting permission to study Drax Hall, Barbados combined with other opportunities brought my research in Barbados to an extended hiatus.<sup>7</sup>

Almost two decades later, encouraged by Jonathan Finch (York University), who was interested in exploring sites associated with the Lascelles family in Barbados, I returned to Barbados in 2010 and worked with him on a study of The Mount Plantation, St. George (Finch *et al.* 2013). This project caused me to rethink my initial research interest in Barbados. I refocused my objectives to explore not only the early sugar era, but also the cultural landscape that preceded sugar production. This reframing included a focus on the pre-sugar era and changes associated with the shift to sugar, slavery, and capitalism.

### **The Hapcott Map of 1646: Recognition and Reconnaissance**

This study began with a review of documents aimed at finding sites where the material record of the pre-sugar era survived in the ground. At the time, I had never heard of Trents Plantation. A map produced by John Hapcott in 1646, housed at the John Carter Brown Library at Brown University, was critical to the study (Hapcott 1646; Armstrong *et al.* 2013). The Hapcott map served as a ‘Rosetta Stone’, projecting an overlay of information from two eras and capturing a landscape in transition to sugar. The map captures the layout of small-scale cotton, tobacco, and provision farms, and presents an overlay of newly surveyed boundary lines of a planned sugar estate. Text on the map describes funding from financial backers in London that led to the transformation of the property into a 300-acre sugar estate. The change dramatically altered the cultural and physical landscape of Trents at a time when similar changes in the physical and cultural landscape were taking place across the island. The sugar boom in Barbados, with its revolutionary scale of economic success and dramatic, albeit tragic, shift to a reliance on enslaved laborers from Africa, led to a rush to sugar and slavery throughout the Caribbean; a change that had global consequences.

After researching early plantations in the Barbados Archives, I knew that the small, and irregularly shaped 10 to 20-acre farms depicted on the Hapcott map projected the layout of pre-sugar era estates; however, I did not know exactly where this estate was located until we used GIS to overlay the Hapcott map on a modern topographic

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7 Fortunately, simultaneous to my disappointment in Barbados a new opportunity that began with a passionate request from a black descendant of the East End Community of St. John, to examine the abandoned where he was born and where blacks had ‘always lived free.’ On the way back from Barbados, I visited St. John, United States Virgin Islands (formerly the Danish West Indies), and examined the well-preserved ruins of a eighteenth and nineteenth century free black community that was in the process of being destroyed by rapid development. As a result, I redirected my energies away from Barbados for more than a decade and a half (Armstrong 2003).

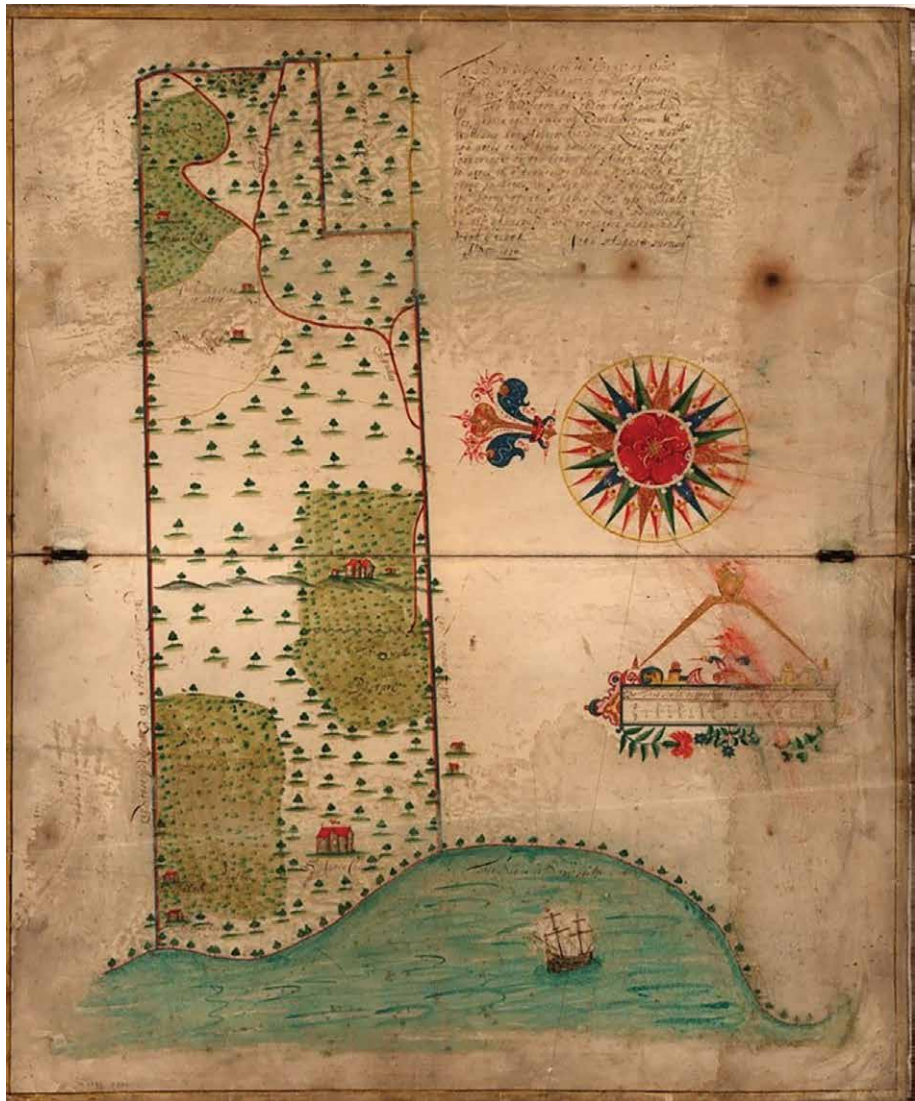


Figure 7.1. John Hapcott Map, 1647 (John Carter Brown Library).

map.<sup>8</sup> Using GIS, we quickly identified key structures and features in the landscape, including the St. James Parish Church and the mansion house at Trents Plantation. Both are still in the exact locations shown on the 1646 map. Using this map as a guide, we tested the south side of the mansion house and re-discovered deep and stratified cultural deposit that included pre-sugar, early sugar, and later seventeenth to early nineteenth-century cultural deposits (Locus 1).<sup>9</sup>

8 This initial effort was greatly assisted by Karl Watson, Matthew Reilly, and Katherine Hicks.

9 The site is recorded at the Barbados Museum and Historical Society as IBS3 (Barbados, St. James, number 3).

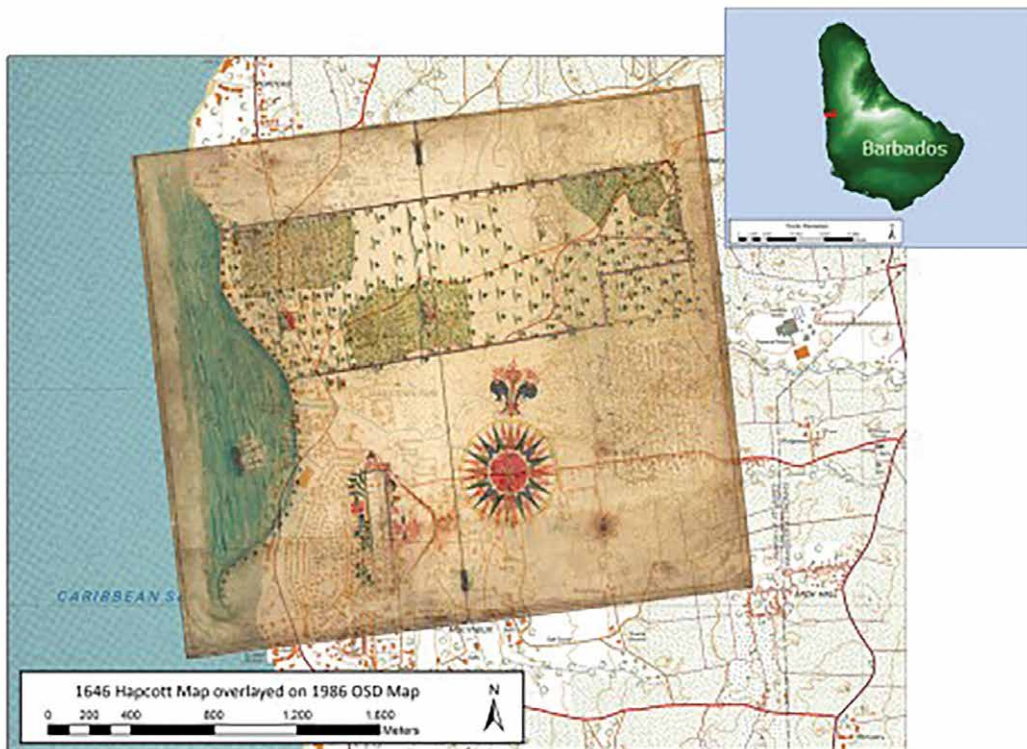


Figure 7.2. Trents Plantation: GIS Overlay of 1646 Hapcott Map (JCB 1646) on 1986 ODS Map.

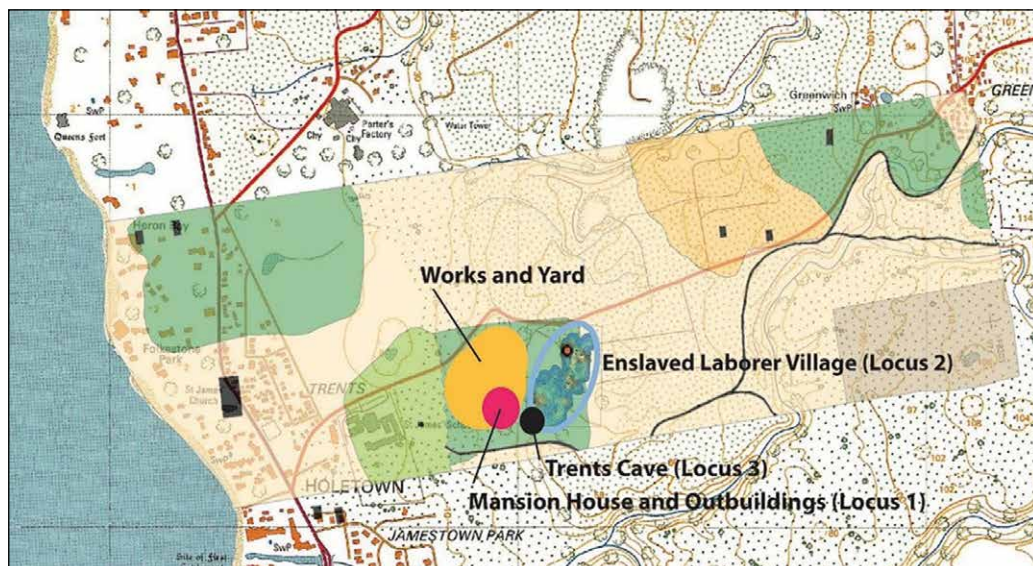


Figure 7.3. Composite Map of survey and excavation areas (overlain on digitized version of the 1646 Hapcott map and 1986 ODS topographic map of Barbados).



## Historical Context for Trents and the Early English Colony in Barbados

The initial colonial settlers in Barbados included Captains John and Henry Powell, who made landfall on Barbados in 1625 after having been blown off course on a return trip from interactions with the Dutch mariners and settlers in South America while working for their employer, William Courteen (Harlow 1925). The Powells noted that while the island was uninhabited in 1625, there was evidence of previous indigenous settlement. Research on the island's Indigenous settlements indicate a variety of coastal and inland sites occupied from 1750 BC to just before colonial settlement in 1627 (Drewett 2002; 2007). The Spanish, and possibly the Portuguese, used the island for provisions, including hogs, which were left on the island to multiply. The Spanish also raided many of the islands of the Eastern Caribbean for indigenous laborers for their settlements in the Greater Antilles. These raids probably account for the island's abandonment by the first decades of the seventeenth century.

'Fort Plantation', known today as Trents, was founded in 1627 along with four other plantations as part of the initial English settlement of Barbados (Harlow 1925).<sup>10</sup> The colonists included experienced mariners who had been involved in trade. The group also included ten enslaved Africans, apparently captured by the English from a Portuguese vessel on the passage to Barbados (Harlow 1925). The initial settlement received financial backing from William Courteen and his Anglo-Dutch firm, Courteen and Co., which had ties to Zeeland, Netherlands and the Dutch West India Company (WIC).<sup>11</sup> Courteen's company already had a primary interest in the Dutch settlement of New Zeeland on the Essequibo River in Guiana.<sup>12</sup> Significantly, New Zeeland's financial structure was organized around supplying provisions, cuttings, and seeds, produced by the Indigenous Guianese of the region, to an expanding array of new colonies in the Americas, including the Virginia Colony and the new settlement in Barbados.

Two weeks after arriving in Barbados, expedition head, Captain Henry Powell, left his nephew, John Powell, in charge of clearing land and headed to the Courteen financed Dutch settlement (New Zeeland) on the Essequibo River in Guiana.<sup>13</sup> This trip had the dual purpose of taking needed supplies to Essequibo, and collecting roots, cuttings, and seeds for the new Barbados settlement. When in Guiana, Powell went up the river to obtain more plantings. As he returned he was pursued by a group of Indigenous Guianese, from the group with whom he had just traded. They indicated to Powell that they wanted to go with him to Barbados:

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10 The expedition, funded by William Courteen, landed at Jamestown, now Hometown, in Barbados on February 17<sup>th</sup>, 1627 (Harlow 1925: xxix). Trents Plantation was initially the residence of John Powell, and through the years it has been known variously as Fort, Charles Fort, Fletchers, Flech (Ligon [map] 1657), Dyer, Gibbs and Afflick, Trents, Ovens Mouth, and Innes (Shilstone 1942; Thomas 1954; Barrallier 1825).

11 The Dutch connection to the early settlement is discussed in detail in Armstrong 2019.

12 The Essequibo settlement had been founded in 1616, and by 1627 it had over a decade of established trade relations with indigenous groups in Guiana.

13 The trip is sometimes mistakenly described as being in response to pending starvation. However, they had just arrived, and the trip to deliver goods and collect supplies and provisions from Essequibo was clearly planned and part of the business strategy.

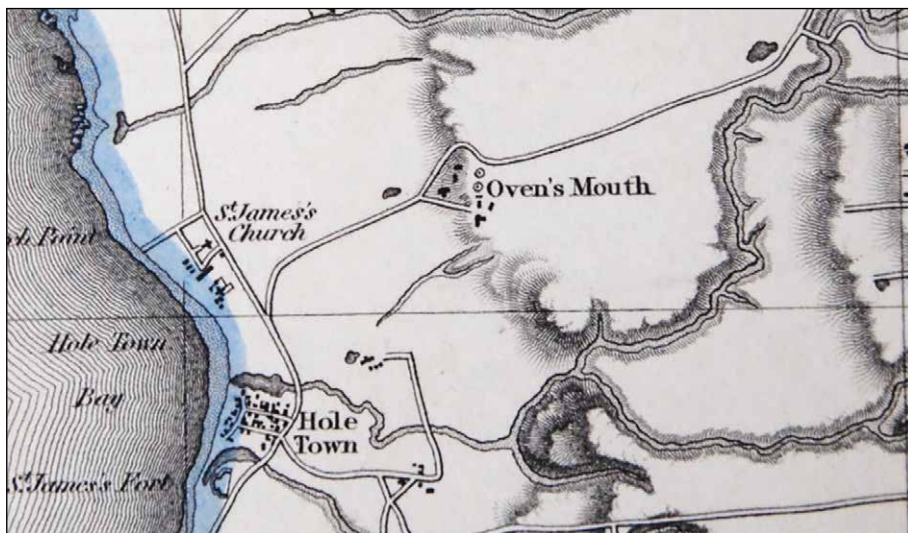


Figure 7.4. Mills, works, and main house associated with Trents Plantation (identified as Oven's Mouth Plantation) on the 1825 Barrallier map of Barbados. The enslaved laborer settlement was discovered to the east (inland) from the plantation works.

*'...they did perceive by the things that I had bought of them that I was bound to plant an Island that lay to the northward of them and that they had relation from their forefathers that had been upon an island that way that was not inhabited and they described the manner of the island to me. And that they had a desire to go with me as free people to manure those fruits and that I should allow them a piece of land, the which I did and they would manure those fruits and bring up their children to Christianity, and that we might drive a constant trade between that island and the Main for there was many more of the Indians of that place that had a desire for to come for that island the next year if I would come there again. And some of them that I brought were the wives and children of men that tarried behind and sent their wives and children with me...'* (Powell 1652 in Harlow 1925: 36-38).

Their decision to join Powell's group can be seen as a means of gaining favor with the Dutch Governor. It is also possible that this group, described as 'Arawaks', may have been refugees from the Caribbean islands. Support for this idea can be found in Powell's statement that the leader of the group told him that:

*'...they had relations from their forefathers that had been upon an island that way...'* (Powell 1652 in Harlow 1925: 36-38).

By agreement, the Amerindians would teach the English how to clear and plant the land, and would bring up their children as Christians. In exchange, they would re-

ceive 'a piece of land'.<sup>14</sup> Years later, in a petition to have the contract upheld and the Guianese and their dependents freed, Powell argued that:

*'if they did not like the country, or should upon any other occasion desire to go back to Essequibo, they should be transported with their reward, which was to be fifty pounds sterling in axes, bills, hoes, knives, looking-glasses, and beads.'* (Powell 1652 in Harlow 1925).

Powell's party returned to Barbados after six months, with between 30–40 Amerindians (Harlow 1925). They brought local plants including potatoes, yams (probably both the endemic South American *Dioscorea trifida* and the African cultigen *Dioscorea alata*, which by this time was commonly grown in South America, tobacco, (*Nicotiana tubacum*), maize (*Zea mays*), cassava (*Manihot esculenta*), cotton (*Gossypium barbadense*), annotta (*Bixa Orellana*; used for a valuable red dye, native to South and Central America), and pineapples (*Ananas comosus*; native to Brazil). They also brought back an array of Old World plants that had been successfully propagated in Guiana. These included citrus fruits and plantains (*Musa paradisiaca*) as well as cuttings of sugar cane (Handler 1977: 197; Watts 1987).

Together, the pioneers set to work planting using slash and burn land clearing practices and planting strategies organized by the Amerindians from Guiana. The landscape of this indigenous based strategy of slash and burn agriculture is illustrated on the Hapcott map in the irregular configuration of small tracts of cleared plantings (Hapcott 1646). This same hillside was visited by Sir Henry Colts in 1631. He observed:

*'There stands a stubb of a tree above two yards high, all ye earth covered black with cenders nothing is clear. What digged or weeded for beautye? All are bushes, and long grasse, all thinges caryinge ye face of a desolate and disorderly shew to ye beholder'* (Colt 1631 in Harlow 1925: 66).

The landscape that Colt observed, and Hapcott (1646) illustrated included a mix of Indigenous and European agricultural practices, irregularly shaped fields, and crops grown in fields that still contained smoldering tree trunks. While, Colt perceived the Indigenous influenced farmscapes as an unordered form of agriculture, the fields that he described yielded significant provisions. However, even by 1631 the socio-political landscape of the island had changed dramatically. In the four years between Powell's return from South America and Colt's observations, a new regime of English settlers had gained control of the island. Courteen's group had lost control of the island (Harlow 1925: 66; Dunn 1972).

In 1629, an investment group headed by the Earl of Carlisle (James Hay) gained control of the island and organized the settlement of thousands of new colonists. The expanding number of settlers cleared land for small farms assisted by indentured

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14 Perhaps Indian Hill Plantation, another of the initial five estates that was settled and planted. Years later, in a petition to have the contract upheld, Powell argued that 'if they did not like the country, or should upon any other occasion desire to go back to Essequibo, they should be transported with their reward, which was to be fifty pounds sterling in axes, bills, hoes, knives, looking-glasses, and beads.' (Powell 1647).

European laborers, small numbers of enslaved Africans, and a few Amerindian laborers. By 1630 there were 1,900 colonists. In the early 1630s hundreds of patents were let to pioneer farmers, and by then the island population had expanded to several thousand people on land that was, at least nominally, divided into between 8,000 and 11,200 properties (Beckles 2006).

When Carlisle usurped control, Guianese 'Arawaks' who came to Barbados with Powell were considered unfree, and in 1636 the Barbados Council passed a resolution:

*'that Negroes and Indians, that came here to be sold, should serve for life, unless a contract was before made to the contrary'* (Bridenbaugh and Bridenbaugh 1972).

From this point forward, through the seventeenth century Indigenous people, like Africans, were considered to be enslaved, unless documented otherwise. In fact, it was a series of depositions by Henry Powel and others in the 1650s and 1660s that ultimately re-gained freedom for the survivors and descendants of the initial Indigenous Guianese who came to Barbados in 1627 (Harlow 1925).<sup>15</sup>

The Indigenous Guianese had a significant impact on the cultural landscape and early planting practices at Trents, as confirmed by agricultural practices described by Colt (Colt 1631 in Harlow 1925) and by descriptions of indigenous people in Richard Ligon's history of Barbados (1657; also, Handler 1977). Moreover, they may also have left a material footprint in the archaeological record at Trents. The archaeological record contains a distinctive coarse and often burnt/black cooking pot form that is present primarily in the earliest pre-sugar era levels (Bloch, this volume). These wares are made of local clays and may well have been made, or influenced by, the Indigenous Guianese. These variably tempered, thick, and burned cooking pot fragments are all but gone from the stratified deposits at Trents by the late 1640s when sugar production began. Moreover, by 1641 and 1643, when the first inventories and lists of laborers was recorded for Trents, no Indigenous laborers were recorded among the indentured and enslaved laborers on the plantation. These inventories were the basis for collateral on mortgages that promised to deliver future cash crops or face loss of property. In 1641 payment was due in a combination of tobacco and cotton, but in 1643 payment was due solely in cotton, which had rapidly become the leading cash crop on the island. However, the organization of the estate had not shifted significantly, and the laborers and planters continued to live in close quarters at and around the mansion house (Armstrong and Reilly 2014).<sup>16</sup>

## **The Shift to Sugar, Slavery, and Capitalism**

In 1630, the Dutch captured the sugar producing Pernambuco region of Brazil from the Portuguese opening up a new blend of financial and social structures to an emerg-

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15 Much of what we know about this group derives from depositions by Henry Powel and others from the initial settler group, who were also interested in recognition of their own ownership rights to Barbadian properties (Harlow 1925).

16 BDA Deeds 1643 RB 3(1): 98. Daniel Fletcher was able to secure a loan based on repayment based solely on the current cash crop – cotton, which was to be deposited in a coastal warehouse by a specific date in fulfillment of payment of the loan.



ing sugar agro-industry (Galloway 1989: 78).<sup>17</sup> Within two decades of initial settlement, Barbadian planters' ties with the Dutch facilitated its shift to a sugar economy. Early sugar estates in Barbados drew upon a confluence of high prices, dramatically expanding markets for sugar, *laissez-faire* governance, and significant technological innovations in both factories (batteries of coppers) and mills (see also Menard 2006; Bridenbaugh and Bridenbaugh 1972). New technologies in the 1650s included vertical three-roller mill and then the introduction of Dutch influenced wind powered mills. In exchange for contracts for future sugar crops, Barbadian planters had access to abundant capital from English and Dutch investors. Rapid growth of the labor-intensive sugar industry required new sources of labor. With rising sugar prices and dramatic profits, funds were available to, clear land, build factories, and purchase enslaved laborers from Africa. This further fueled the Atlantic slave trade.

With the shift to sugar, the planters at Trents acquired an expanding number of enslaved laborers from Africa. As a result, a new enslaved laborer settlement (Locus 2) was started by 1650 in an area separated from the planter's house (Locus 1). The village was located across a steep gully inland (east) from mansion house. The shift to sugar also led to the construction of agro-industrial core for the estate, including new sugar processing works consisting of windmills, boiling factory, and curing house. The works were constructed to the northwest of the mansion (Figures 7.3-7.4). The village became the home of an increasing number of enslaved laborers. Deeds show 50 enslaved laborers in 1722 (BDA Deeds 1722),<sup>18</sup> 160 in 1743 (BDA Wills 1743), and 167 in 1834 when an inventory was compiled in anticipation of emancipation (UCL 2013).<sup>19</sup> While some enslaved servants, grooms, and skilled factory workers continued to live within the mansion complex, most laborers lived in this separate settlement until emancipation.

Upon emancipation, many of the workers continued to work on the plantation as contracted wage laborers. However, at Trents and across the island, villages were removed from their position near works and planter's residences. Prior to emancipation, the enslaved laborers had gained ownership rights to their physical houses and material property, but not the land on which they were built. Tenants rented small parcels of land from the estate in a new settlement, called Trents Tenantry, located along the main coastal road, away from the plantation works (Figure 7.3).<sup>20</sup> The survival of house platforms suggests that the small chattel houses were picked up, and moved to the new tenantry.

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17 The Dutch attempted to seize the Brazilian city of Salvador in Bahia in 1624-1625. In 1630 they returned and captured Recife, and then expanded their holdings along the coast, holding some until 1654 (Galloway 1989: 78).

18 This probably represents only half of the enslaved laborer population as the list defines those owned by only one of two daughters (and their husbands) who inherited the estate.

19 A list of enslaved laborers at Trents Plantation is included in the inventory of the transfer of ownership from Henry Gibbes to Reverend William Trent (BDA Deeds 1733). The 1834 'Register of Slaves of John Constantine Trent, owner of Oven's Mouth (Trents) Plantation is available on-line as part of the UCL database. It lists a total of 167 enslaved laborers including 77 men and 90 women, all of whom were born in Barbados (UCL 2013).

20 This settlement still exists and is currently expanding. Tenants continued to pay rent to the plantation owners into the late twentieth century. Recently many of the small, wooden, chattel house cottages have been replaced by much larger cement block structures.

Significantly, the village at Trents is the only known enslaved laborer settlement that was not plowed at emancipation. The reasons that ruins of this community were undisturbed are complex. The positioning of the planter's house and industrial yard dates to a pre-sugar era of pioneer settlement. By way of comparison, the surviving main house at Drax Hall dates to the 1650s (sugar era) and represents a post-sugar era reorganization. Paul Campbell documents a similar post-sugar era reorganization for Kendal Plantation (1993). In contrast, the planter house at Trents was established with the initial settlement in the 1620s. The planter's house was positioned defensively with an expansive view. It was bordered on three sides by steeply sloped hills and gullies, which provided a margin of protection from the threat of invasion during its early years (see Hicks 2007).

The movement of the majority of laborers across a gully to the adjacent hill provided space for the expanding labor force. It also provided spatial separation of the African laborer at a time when the economic and social gulf between laborers and planters expanded. This land used was not suitable for sugar production as it also contained limestone quarries. Hence, even after the village moved, the foundations of these house sites were never plowed or disturbed.

### **Archaeology of the Pre-Sugar Small Farm Setting (Locus 1: 1620s-1640s contexts)**

The planter's mansion and yard complex (Locus 1) contains stratified deposits dating from the initial colonial settlement of Barbados to the present. Deeply stratified deposits (220 cm), just to the west of the mansion house, contain evidence of the pre-sugar era settlement (1620s-1640s) as well as sequential deposits dating to the early sugar period (1640s-1680s) on through the period of emancipation, and up to the present. The early, pre-sugar era deposits (1627-1640s) include sparse, yet significant, materials associated with early pioneer planters and laborers (indentured and enslaved). In the early years, the planters and laborers lived together, or in close proximity near the mansion house (Locus 1). During the pre-sugar era the farm consisted of the planter family, along with a changing array of no more than fourteen indentured and enslaved laborers. The laborers included Europeans, Africans, and possibly Indigenous 'Arawak' laborers from Guiana (Harlow 1925).

The early to mid-seventeenth century, pre-sugar materials, reflect limited access to goods and little sign of affluence. There is a sparse array of tin enamel plates and bowls along with Chinese porcelain, fragments of Bellarmine stoneware jars, and small amounts of both case and free blown bottles. In addition, there is an array of coarse earthenware, including Barbadian made wares that project both wheel and hand thrown vessels. However, one type, a thick, heavily tempered, burned, cooking pot form, appears in the early deposits, but quickly decreases in quantity and disappears from later deposits (Figure 7.5). Laser Ablation (LA-ICP-MS) chemical characterization indicates that these wares were made in Barbados (Bloch *et al.* 2017; Bloch, this volume). This type of earthenware is distinctly different from late period Barbadian Amerindian wares reported by Peter Drewett from the Heywoods site, near Speightstown, and from materials excavated from a site along the coast at Holetown (Drewett 2007; 2000). A few of this type of sherd were found in the lower deposits in the enslaved village

(Locus 2), and at the shelter area outside Trents Cave (Locus 3). However, they are not present in the upper levels of either site. These wares may have been made early in the habitation sequence by the Guianese 'Arawaks' who helped to establish the plantation beginning in the 1620s. The later absence of these wares is consistent with inventories that indicate that the Amerindians were no longer present by the early 1640s.

The paucity of material remains from the early deposits is consistent with inventory records from other pre-sugar era plantations on the island (Table 7.2). The early inventories are often very detailed but brief given the limited quantity of possessions. They tend to list virtually every item in the possession of the owner, from cotton hammocks to simple cotton gins, and they include things like old wood working tools, and the number of ceramics and bottles (Armstrong 2019). The inventories often indicate ownership of one or two bottles, which were reused until broken. For example, a mortgage granted to Thomas Waller on a small tobacco and cotton plantation in St. Lucy notes the exclusion of personal property consisting of one chest, one trunk, one hammock and 'wearing clothes'.<sup>21</sup> The inventory goes on to list possessions including:

*'three muskets, a fowling piece, one brass kettle, two hoes, four bills, one broad axe, several plains and joiners, a chisel, a gouge, two augers, 50 foot of boards, one lamp, one water cask and salt barrel, one stone jug, five wooden platters, five spoons, one ladle and half tub, and one case of empty bottles'* (Armstrong 2019).<sup>22</sup>

At Trents, the owners of the estate were relatively more well off than many of their neighbors. An inventory of owner Daniell Fletcher in 1641 lists 14 indentured laborers.<sup>23</sup> The inventory groups most of the types of artifacts that we recovered from the site as 'household goods' without itemization and goes on to describe the '...stock, tools, arms, and household goods' including:

*'one bull, three young cattle, ten old sows, one boare, ten of the goates now in the plantation, thirty of the turkeys now upon the plantation, nine old howes and cooke and other to make up the same number, ten other fowls on the plantation, one large copper, two iron pots, all the pewter on the plantation, all the tools or whatever kind belonging to the plantation, a table cloth and twelve table napkins, all the tables boards forms and stools, one hammock for sake of the servants, one muskette.'*<sup>24</sup>

Items that were listed, like one large copper, two iron pots, and all the pewter of the plantation did not find their way into the archaeological middens.

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21 BDA, RB3/ Deeds 1/228-2296, Thomas Waller, 6 November 1643.

22 BDA, RB3/ Deeds 1/228-2296, Thomas Waller, 6 November 1643.

23 The names and terms of indenture for these laborers is reported in Armstrong and Reilly (2014; BDA RB6, Deeds: 2/288-289, Daniell Fletcher grantor, May 3, 1641).

24 BDA RB6, Deeds: 2/288-289, Daniell Fletcher grantor, May 3, 1641.

Two years later an inventory shows Fletcher takes out another mortgage.<sup>25</sup> This inventory shows that the internal social organization of the plantation was in flux, even before sugar production began. This inventory lists 13 laborers, five of whom are indentured and eight who are enslaved Africans (Armstrong and Reilly 2014).<sup>26</sup> This inventory provides more detail in relation to household goods, listing:

*'...1 mare, 12 head of cattle, 1 mare, 1 colt, 5 sowes, 1 boare, 11 hamackoes, 1 Spanish duck, 1 horse, 2 whipsawes, 11 musketts, 2 bibles, 1 pewter basin, 1 pewter pint pott, 5 howes, 4 bills, 1 axes, 1 jug, 1 table cloth, 6 napkins, 1 copper, 1 frying pan, 1 batinge iron, 2 iron pots, 1 brass grater, 11 old pewter plates, 4 old pewter platters, 1 engine [cotton gin], 1 broad axe.'*<sup>27</sup>

The record of goods in the inventory includes many items that were either consumed or retained. The archaeological record projects dietary evidence of many of the animals listed (see also Wallman this volume). Significantly, the listing of an engine, or cotton gin, shows a shift towards a cash crop and the mortgage defines the terms of repayment of the loan in terms of pounds of cotton. The archaeological record holds the combined material record of planters and laborers, of the pre-sugar era. The archaeological record along with the written inventory of goods shows a relative dearth of material possessions.

## **The Shift to Sugar: Changes in the Cultural Landscape and Material Culture**

Archaeological evidence of the sugar-era landscape in the Caribbean has been discussed by many archaeologists (including Armstrong 1990; Delle 2011; Handler and Lange 1978; Handler *et al.* 1989; Hauser 2008; Haviser 1999; Hicks 2007; Higman 1998; Howson 1990; and Kelly 1989; Meniketti 2015). Meniketti's study, which focuses on the broader plantation landscape of Nevis, presents a similar argument related to the important transformative role of capitalism to the cultural landscape during the period of slavery, but does not directly link that change to the material record of those who lived and worked on the estate. Collectively, these studies have focused on the cultural landscape of the era following the emergence of sugar as a cash crop and have concentrated on social relations, including the inherent systems of inequality and harsh brutality of slavery, as well as counter forces of creativity transformation, and ethnogenesis among the laboring population and emergent island communities of the Caribbean. In designing this study, I wanted to examine the pre-sugar era so as to better understand the dramatic contrast represented by the shift to sugar, agro-industry, capitalism, and

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25 This was an era of growing financial speculation aimed at securing profits from contracts on cotton. This type of transaction shows that even before sugar swept the island into large-scale capitalistic marketing of cash crops, Barbados was already experimenting with this form of capitalism.

26 BDA RB6, Deeds: 1/92, Daniel Fletcher Grantee, Sept 15, 1643). Daniel Fletcher had obtained the enslaved laborers as part of a separate land transaction that included the enslaved African laborers as part of a property transaction and they were apparently then moved to what was then 'Fort Plantation'.

27 BDA, RB6, Deeds 1/92, Daniel Fletcher Grantee, Sept 15, 1643.

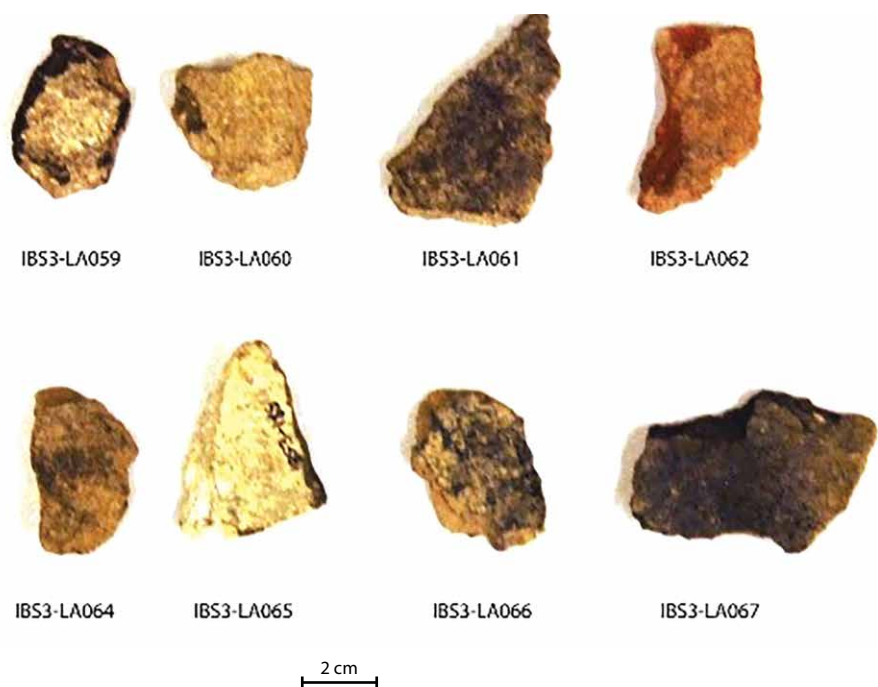


Figure 7.5. Domestic 'Type 1' earthenware. These wares appear primarily in the earliest deposits of the pre-sugar era midden at Trents Plantation (Locus 1). These wares may have been made by Indigenous Guianese who played a critical role in the early pioneer settlement of Barbados (Douglas Armstrong).

the related shift from indentured to enslaved laborers, primarily Africans, but also including indigenous laborers (Armstrong and Reilly 2014; Armstrong 2015a; see also Hicks 2007 and Meniketti 2015). The backdrop of capitalistic enterprise, and global economic networks, provides a means of understanding how the archaeological record at the local site level (at Trents) is linked with much broader social and economic patterns of the era.

The cultural and physical landscape of the estate changes dramatically with the shift to sugar with the creation of a separate enslaved laborer settlement for the growing number of enslaved Africans, the construction of the sugar works, and the clearing of forests and planting of sugar cane. The comparative analysis artifacts from the site allows a closer look at plantation life.

### **The Material Record of the Planter Household (post-1650)**

In contrast to the pre-sugar era, the archaeological record shows an abundance of material goods, including both expensive imported wares, and less expensive domestic wares in cultural deposits associated with the planter household. Fortunately, the position of the mansion house remained constant as the buildings associated with sugar works expanded. Hence, new layers added on top of the pre-sugar era deposits, project the discarded and broken wares that built up over the seventeenth century. The material record of the planter's household includes items used by not only the planter family,

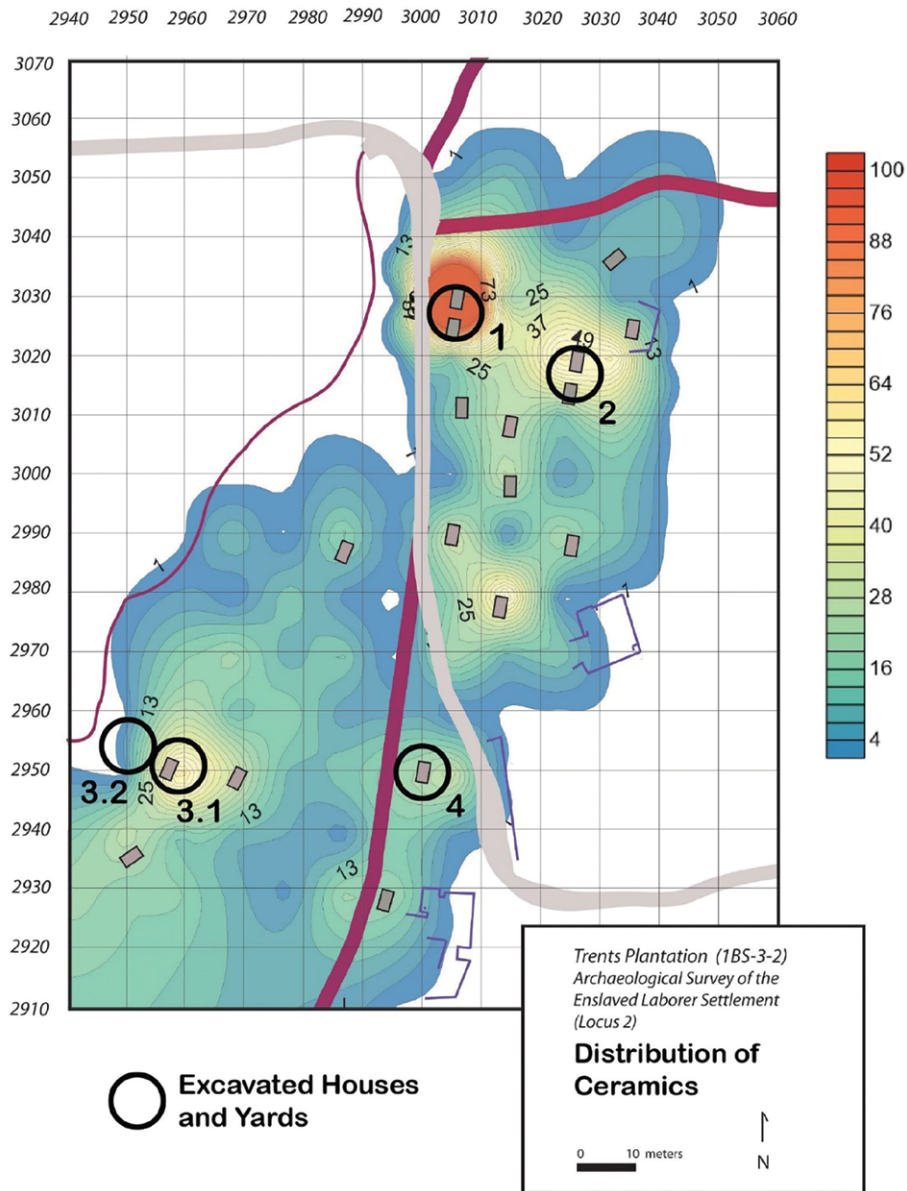


Figure 7.6. Location of house sites on map showing distribution of ceramics across the enslaved laborer settlement at Trents Plantation (Locus 2; plotted using Surfer). Excavated house areas are circled and house area designations are numbered. Also, note positioning of outlines of limestone quarry sites on the eastern boundary of the site (Douglas Armstrong).

but those who lived and worked around the house including indentured laborers, and enslaved laborers including servants. These people cooked the food and cleaned the cloths of the planter family. The items that these laborers used, and broke, are also included in the planter assemblage. Significantly, the material record of the planter household is distinctly different from the types of materials listed in the post-1640 plantation inventories, as these items now constitute only a minuscule fragment of the

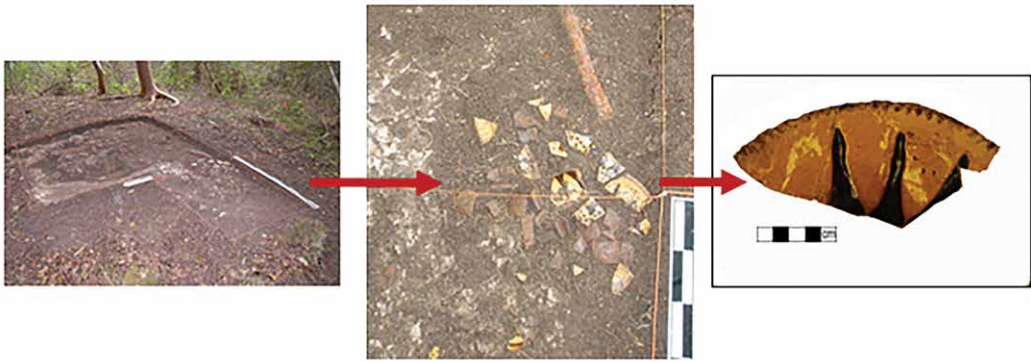


Figure 7.7. House platform area at house area 1 (HA1, Locus 2) showing cluster of slipware sherds on floor surface. Slipware included a cluster of sgraffito slipware. House site also yielded a wide range of glazed domestic earthenware (Douglas Armstrong).

Figure 7.8. Gaming pieces, HA2, Locus 2, Each of the gaming pieces recovered from this house area appear to have been broken during manufacture, suggesting that members of this household were engaged in the production of these modified artifacts (Douglas Armstrong).

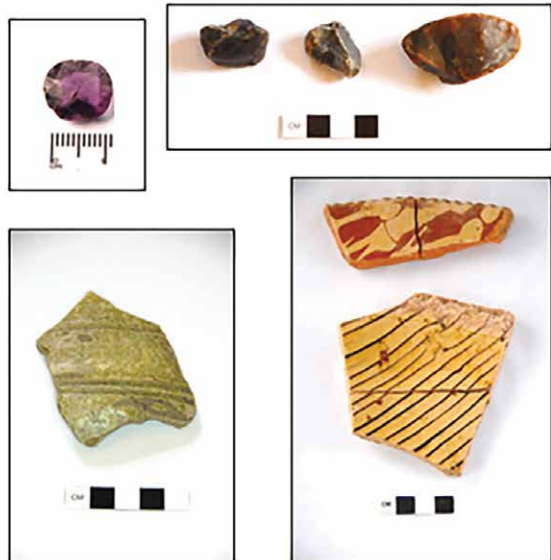


Figure 7.9. Excavations at HA3.1 and HA3.2 (Locus 2). Artifacts include a variety of slipware, domestic earthenware, as well as battered flint strike-a-lights (most of those found at this house site were made from flint cores), and personal items like this faceted amethyst glass jewel (Douglas Armstrong).



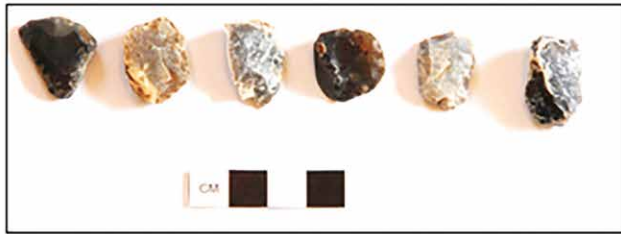


Figure 7.10. Excavation of house area HA4 (Locus 2). One of the distinctive artifacts found at the site was a spindle-whorl. It was used to spin cotton thread. This artifact was crafted out of a sherd from an industrial sugar ware. Its circumference was ground down and a whole was ground at the center. To spin cotton, a stick would have been inserted in the hole and the ceramic disk would then serve as a weigh that was dangled and spun. The flint strike-a-light found at this house and yard were all made from flint flakes (Douglas Armstrong).

value of possessions. Even more significant, the material record of the planter household is dramatically different from that found in the village.

Historical documents identify a dramatic increase in the wealth of the planter household, the value of the estate, and the number of enslaved laborers employed beginning with the expansion of the sugar estate in the late 1640s. The scale of increased affluence is so great that most of the domestic items on inventories for the estate in the pre-sugar era are simply lumped together under the phrase ‘implements of the household’, or omitted. Hence, even the fancy and expensive decorated tin glazed plates and bowls, polychrome Chinese porcelain; glass crystal stemware, and mullioned window glass are omitted from the 1669 inventory of William Dyer. His deed records the value of the land and its holdings, including buildings and enslaved laborers, at £6900, sterling.<sup>28</sup> In addition to the dramatically increased value of the property, the will projects details on surplus accumulation and distribution with his two daughters receiving the bulk of the estate including the land and the enslaved laborers, and his wife Bridgett receiving: ‘two pearl necklaces, a diamond ring, an emerald ring, as well all other rings and jewelry, and her wearing apparel, along with an annual payment in sugar’.<sup>29</sup> This emphasis on new forms

28 The mortgage deed indicates that the property was owned by William Dyer (BDA Deeds RB7/2/156). The property had apparently been mortgaged and this deed indicates repayment and the recording of a clean title to the property. The price reflects a dramatic increase in the value of the plantation based on its shift to sugar. This increase involves the value of the land, based on future production, the value of the factory and buildings on the property, and the value of the enslaved labors as chattel property bound to the estate.

29 BDA RB7/2/156 William Dyer grantee, 8 October 1669.



	Locus 1	Locus 2
Ceramic and Glass (counts and ratios)	1	2
All ceramics	3629	9045
Imported (refined) ceramic	1216	4870
Earthenware	2413	4175
Domestic	407	3095
All industrial	2011	1036
Sugar industrial (pots and cones)	1865	1028
Tile	146	8
Glass	2933	2168
Total glass and ceramic	6562	11213
Ratio of Glass to Ceramics	80.8%	24.0%

	Locus 1	Locus 2
Ceramic Ratios	1	2
% Imported (refined) ceramic to all ceramic	33.5%	53.8%
% Earthenware to all ceramics	66.5%	46.2%
% Domestic earthenware to all ceramics	11.2%	34.2%
% Domestic earthenware to all earthenware	16.9%	74.1%
% Industrial earthenware to all ceramic	55.4%	11.5%
% Industrial earthenware to all earthenware	83.3%	24.8%

*Table 7.1. Ceramic and glass (counts and ratios).*

of displays of conspicuous wealth is further accented by his allocation of £20 sterling was allocated for ‘mourning rings to be distributed among my friends.’<sup>30</sup>

The domestic wares recovered from the seventeenth century era mansion house middens include large quantities of tin enamel ware including everything from serving bowls and platters to chamber ware, along with ornate overglaze porcelain bowls and utilitarian stoneware storage vessels. Some domestic coarse earthenware cooking wares are present along with relatively little slipware. The predominance of tin enamelware and Chinese porcelain along with expensive stemware, and quantities of free blown onion bottles are indicative of the known high economic status of the planters. In contrast to the sparse representation of bottle glass from the pre-sugar era context, during the sugar era, bottle glass had become expendable. The presence of cork and bottle wires, along with the predominance of nearly whole bottles and large shards, is indicative of use and discard rather than use and reuse. Bottles were unwired and uncorked, the contents consumed, and the bottles discarded.<sup>31</sup>

We found evidence of rubble and quantities of items associated with remodeling of the mansion with materials dating to the late seventeenth century. These materials include an abundance of diamond shaped mullion window glass and lead coming from leaded glass windows that were apparently replaced. While it is possible that the reno-

30 BDA RB6/ 212-214, William Dyer, 30 July 1674.

31 This change may be tied to overall changes in consumption and discard practice, but it is in sharp contrast with the continued paucity of and evidence of repeated reuse of bottle glass from the adjacent enslaved laborer contexts (Locus 2, ISB3-2).

variations were stimulated by a traumatic event, such as a hurricane or earthquake, there is no record of a specific impact. More likely, the architectural changes, and perhaps even some of the discarding of artifacts, relate to the combination of changing stylistic modes coupled with access to the finances to support design changes. From 1722 until 1844 (after emancipation) the estate was held by succeeding generations of the Trents family).<sup>32</sup> However, the Trents family owned several properties, a town house in Speightstown, and spent time in England, so the plantation probably operated under absentee management. While the archaeological record shows a gradual accumulation of domestic wares and refuse associated with eighteenth and nineteenth century deposits there were no major episodes of accumulation, indicating no major design changes in the adjacent structure or purges of material goods and less direct planter supervision of the estate than in the seventeenth century.

After emancipation, the estate continued operating as a sugar estate but changed management several times in the twentieth century. The fact that much of the core of the estate remains intact results in part from the acquisition of Trents Plantation by the Panama Progressive Society, a cooperative trust formed by Barbadian laborers who set up and operated the funds in Panama. In 1941, this group reinvested funds in Barbados through the purchase of six plantations (Marshall 2012). According to Woodville Marshall, the purchase was celebrated at Trents Great House. The purchase of Trents, and the five other estates, placed blacks as the owners of key Barbadian plantations. They were now 'sleeping in the house where white people used to live' and owners of estates upon which persons of African descent had been held in bondage.

The timing of the Panama Progressive Society in Barbados was bad given declines in the price of sugar and managerial problems that may have involved both poor management and problems associated with confronting social and racial barriers in Barbadian society. Ultimately, the plantation was sold by the society for a profit in 1970 (Marshall 2012: 59; Carter 2016). The core of the plantation, including the mansion and the acreage upon which the enslaved laborer settlement stood remain intact, and the estate continues to be black owned.

## **Enslaved Laborer Settlement (Locus 2)**

The enslaved laborer settlement (Locus 2) was identified during an exploratory survey of the site in 2014. The survey identified quantities of seventeenth to early nineteenth century domestic ceramics and glass as well as the presence of a series of house platforms, and stone foundations. The northwest corner of the settlement probably served as a plantation cross-roads, as five plantation roads and paths converge, including a former path that led up to this flat point from the gully that separates the village (Locus 2) from the mansion house and works complex (Locus 1). The village extends south for 120 meters on the hill slope on the east side of the gully from the cross-road south. It has a width of 40 meters at the north end and 80 on the south end. At the top of the hill there are a series of limestone quarries running from north to south and another series of quarries mark much of the southern boundary of the site. Cane was grown on

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32 The property had changed hands in 1669 when it was acquired by William Dyer. It was then passed on to Dyer's daughters and the Gibbes and Afflick families in 1674, and then to the Trents family in 1722.

Planter (Locus 1)-Earthenware (counts)- Pre-1650 contexts (Levels 11-14)				
	All	Domestic	Industrial	Type 1 (burned)
Level 11	24	7	17	0
Level 12	9	4	5	2
Level 13	6	6	0	4
Level 14	7	7	0	5
	46	24	22	11

Planter (Locus 1)- Ceramics (refined), Pre 1650 contexts (Levels 11-14)	
Porcelain	14
Stoneware	2
Refined earthenware	2
Delft	36
<b>Total</b>	54

Table 7.2.  
Pre-1650-  
era ceramics  
(Locus 1).

the flat plateau above the village and quarries and the fields to the south of the site. In some ways this site is consistent with other enslaved laborer villages found in Barbados, and throughout the Caribbean. It is located near the center of the plantation and near the works where labor was required to plant, tend, harvest, and process the sugar crop (see Armstrong 1990; Armstrong and Kelly 2000; Finch *et al.* 2013; Handler *et al.* 1989). The Trents village site was abandoned at emancipation, but unlike other villages it was not plowed for cane. As discussed earlier, at emancipation many of its houses were simply picked up and moved to Trents Tenantry.

Intensive survey and excavations of the village (Locus 2) was carried out between 2014 and 2016. The survey involved cutting transects through dense brush and trees to gain access to the hillsides and to plot the distribution of artifacts and the array of stone features marking house sites. We established a 10x10-meter grid and excavated 122 shovel test pits (or STPs). The distribution of ceramics from across the site shows concentrations that were often associated with lines and groupings of rock marking house foundations (Figure 7.6).

Based on data generated by the survey five of fourteen well-defined house and yard areas were more intensively excavated. We initially selected four house-yard areas for excavation based on a combination of factors including residual evidence of structures, the quantity of material recovered from adjacent shovel test excavations, and the time periods represented by the materials present, and ultimately realized that one house site involved two distinct living areas, adding a fifth separate house and yard to the sample. House Area 1 (HA1) has two structures and associated middens (Figures 7.6-7). This house-yard area is situated on the hillside near the cross-roads area at the northwest corner of the village. House area 1 (HA1) was built atop a limestone outcrop feature. Surface materials date to the late-eighteenth and early-nineteenth century. When this site was excavated we found a distinctive, well-stratified, floor with clusters of artifacts, including sgraffito slipware dating to the late-seventeenth and early-eighteen centuries. House Area 2 (HA2) also consists of a pair of structures and surrounding yard. One structure sat atop a limestone outcrop (Figures 7.6 and 7.8). The other is indicated by a cluster of limestone pebbles. Finer grained marl associated with daub/mortar apparently

having washed away. This house dates to the later-eighteenth and early-nineteenth century. An interesting feature of the site is the presence of three gaming pieces that appear to have been broken during manufacture, suggesting local craft production (Figure 7.8). Both HA1 and HA2 are easily discerned in the landscape by breaks in the slope of the hill and large numbers of domestic artifacts on the surface.

As excavation progressed, an area initially defined as house 3 (HA3) was redefined to represent two discrete houses and yards (HA3.1 and HA3.2). House Area 3.1 (HA3.1) is located on top of the ridge at the edge of the gully. It was defined primarily by the density of ceramics found in shovel tests and evidence of long-term, or recurrent, occupation beginning in the seventeenth century (Figure 7.9). As we continued to explore the area we found a deep deposit of artifacts dating to the late-seventeenth century in a flat platform area about 5 meters down a steep slope on the side of the gully (HA3.2). This house is positioned adjacent to the only climbable break in the cliff face on the village side of the gully.<sup>33</sup> At a depth of 60-70 cm we found a floor of limestone rock on which there was a dense scatter of ceramics and domestic wares. This house site contained significant numbers of domestic earthenware bowls and pots, some of which had incised decoration. The material also included beads and faceted glass jewels. At this house site the flint strike-a-lights were all battered flint cores. In contrast at HA4 all of the flint-strike-a-lights were made from flakes.<sup>34</sup>

House Area 4 (HA4) is located alongside an old roadbed that we found during the survey (Figure 7.10). The majority of material from this house site date from the mid-eighteenth century to the early-nineteenth century with some earlier material. The presence of rock that probably functioned as foundation stones, suggests a structure built atop a platform (as with structures on platforms and HA1 and HA2). The flint strike-a-lights at this house area were all small, flaked flint (in contrast with HA3 where they utilized cores). While the people at each house site made use of flint strike-a-light, the fact that the people at HA4 used only flakes while the flint strike-a-lights at HA3.1 and 3.2 were cores suggests a household-based difference in access to or selection of materials.

A spindle-whorl shows that the residents were engaged in modifying materials for their own purposes. Spindle whorls were used for the spinning of cotton, a product of the estate from its earliest days, and may have continued as a minor crop on the property during the period in which sugar became the principal crop. All five houses feature a wide range of domestic materials including imported ceramics and domestic coarse earthenware. There is almost no industrial earthenware (sugar wares) at the north end of the site, but some are present at the southern end of the site. In all areas, the proportion of domestic earthenware outnumbers the industrial wares by a ratio of at least 5 to 1.

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33 Its position suggests it may have served as a gateway house to the cave and shelter that we found at the bottom of the gully (Armstrong 2015b).

34 The flint was struck against iron to create sparks that started fires. Cores represent flint rocks from which have had small flakes knocked off. Most of those found at the village are relatively small nodules (less than 4 to 5 cm maximum length). Flint flake tools are made from relatively large flakes that have been knocked off cores. These are slightly smaller than the cores present, they show cleaving on most sides, and (in contrast to the cores) have little unmodified surface area.

The materials form the enslaved laborer settlement project a long period of occupation from the mid-seventeenth century until emancipation at which point the site was clearly abandoned, with considerable materials left in place. The quantity of materials from across the village (Locus 2) increases through the period of occupation, perhaps related to the increase of population in the eighteenth century, but probably more closely related to an increased access to items like industrially produced imported wares in the laborer village during the later years of its occupation (Table 7.1).

### **Summary of Findings and New Directions**

The study of Trents plantation explores the founding of the early English settlement in Barbados as well as the transition from small-farms to an agro-industrial plantation economy based on sugar, slavery, and capitalism (Armstrong 2019). The study of Trents Plantation provides a strong, data driven, example for the importance of the shift to capitalism in the mid-seventeenth century. The English colony relied on the support of investment capital. Even in the pre-sugar era, social and financial interactions relied on capital production and trade. Plantations like Trents, were established with the hope of returns on investment. Lands were cleared and an array of provision and cash crops were grown. At Trents they tried to generate a profit growing tobacco; but shifted their focus to cotton by the early 1640s. Based on the prospect of profitable delivery of cotton they were able to secure loans to be repaid with future cotton crops. In 1641, the plantation owner was able to acquire eight enslaved Africans to replace indentured laborers whose contracts had expired. However, even with the shift to cotton, the basic scale of operation, and profits, were little changed. Access to material goods was limited by the small scale of the operation (and resulting profits), and items found in the site were sparse and well used. Planter and laborers continued to live within the same house compound and, while the records suggest they had ample food, there is little evidence of affluence or social differentiation.

The pioneers at Trents, learned to grow regional foods with the assistance of 'Arawaks' from Guiana, who came to Barbados under terms of indenture, but who, as the result of change in control of the island, were redefined as slaves. Thus, by the early 1640s Amerindians were absent from the plantation. However, in the initial years of settlement, the 'Arawaks' were instrumental in survival by sharing their knowledge of propagation regional plants. The earliest levels of the site contain Barbadian made ceramics that project Indigenous practices.

The revolutionary shift to sugar and slavery changed the cultural and economic landscape. Trents, like much of Barbados, shifted to production of a very lucrative cash crop, sugar, using a capitalistic system of capital investment, commodity production, and loans that involved a commitment to supply the next year's crop in exchange for a capital advance that was used to buy enslaved labor, clear fields, and build industrial sugar processing works. The economic rewards for a successful harvest were dramatic. Planters got rich and reinvested in modifications to their plantations. They also invested in storehouses, ships, and an array of material goods.

The study of Trents, tracks a successful plantation through generations of planters and hundreds of laborers over nearly four centuries. The archaeological record of the shift to sugar demonstrates a rapid accumulation of material wealth for the planter and

the expansion of social divides on the plantation. This is indicated by changes in the physical landscape, shifts in labor relations, and an abundance of expensive wares in the midden associated with the planter's residence. We found Chinese porcelain, hand painted delft, cut crystal wine glasses, and a change in the use of bottles that were once scarce, prized and reused, to items that were simply open to consume the alcoholic beverage and discarded. However, even as the site demonstrates success for some, many small planters who had worked small plots did not have sufficient land to generate capital. Most of the small land holders sold or lost their land, which was consolidated among a smaller number of planters with growing financial and social capital.

The shift to sugar also involves a dramatic, and tragic, shift in the role and condition of laborers. Former indentured laborers had limited access to land and were forced to accept low-level managerial roles. Many moved off the plantation to marginal lands, growing urban areas like Bridgetown, or simply left the island. The Amerindians who had under contract from Guiana, were enslaved and the plantations came to rely on large numbers of enslaved laborers from Africa to produce the lucrative cash crop.

The most significant change associated with the shift to sugar is the move to a reliance on enslaved Africans. At Trents the shift is marked by changes in the cultural and physical landscape. Large numbers of Africans were brought to the island as 'slaves' purchased by the planters to clear the land as well as to plant, harvest, and process sugar. Given the large number of laborers, more space was required and a new enslaved laborer settlement was constructed. The movement of the village away from the planter house provided a means to enforce greater social segregation between the planter and the enslaved. It also reinforced divisions within the labor force between indentured and enslaved laborers, and even among African laborers. Africans with specific skills, including cooks, house servants, grooms, drivers, blacksmiths and those with knowledge in the processing of sugar generally lived in and around the planter house. They had access to different clothing and food than those living in the village.

The physical separation of the planter household from the enslaved laborer settlement allows us to examine discrete archaeological samples that project sharp, raw, contrasts in access to goods and resources. One area of commonality between the planter and laborer households is the presence of a variety of island made domestic cooking wares. This is not surprising as the planter's cooks were enslaved Africans. However, in the village we found a much larger proportion of locally made earthenware vessels as well as a broader range of cooking pots, bowls, plates, and water containers. Other similarities in the assemblage are few. The planter's midden included hundreds of expensive Chinese porcelain sherds, some with complex polychrome and overglaze while the village contained only a few porcelain sherds. The majority of imported refined earthenware at the planter's residence are tin enamel delftware. For comparable periods, the majority of imported wares are less expensive slipware. The forms of these vessels are also different with large decorated tin enamel bowls and significant numbers of chamber pots and wares. In the village, slipware are primarily cup and mug forms. The absence of any form of chamberware suggests that rather than having someone take out your 'night soil' in the morning, the enslaved made their way to the nearby fields to relieve themselves. During the later-eighteenth and early nineteenth century the predominant imported wares in the village shift to an array of industrial slipped annular (banded) wares, most often in small bowl or mug forms. In contrast the planter

household tends to shift to the use of plates made of white stoneware, then creamware and pearlware and continues to use both porcelain and delftware.

Even though the planter midden was located within 20 meters of the mansion this site, and virtually everywhere within the broader mansion house and works area, had an abundance of industrial sugar wares including drip jars and sugar cones. This attests to the pervasiveness of sugar production. Some sugar wares, including bases of drip jars that may have been used for holding water, were found in the village and even in the surrounding fields where cane was grown (perhaps purposely placed in the fields to enrich the soil).

There is a marked difference in the quantity and variety of glass and glassware found at the planter's house (Locus 1) and the village (Locus 2). This is evident in the quantities and ratios of ceramics and glass in Table 7.1. The planter's midden has an abundance of glass and the village has very little. Glass had been scarce and bottles reused until broken. With the shift to sugar, glass of all kinds remained relatively scarce within the village. However, for the planter household, all forms of glass, including expensive stemware, are in abundance. Hundreds of diamond-shape window fragments were found in late seventeenth century strata. Their presence reflects a change in windows at the planter's house to larger panels of window glass that let in more light. In contrast, the village site had no glass windows, and no access to nor participation in an emerging 'Georgian' aesthetic. By almost any measure, quantity, quality, diversity of wares, and price the assemblages illustrate the most dramatic of social and economic contrasts and project both sharp division between the planter and the enslaved from the beginning of the sugar era to emancipation, when the newly freed laborers are forced off the plantation.

Research, including a wide range of material analyses, is ongoing. I am currently exploring the broader economic links and social changes that facilitated English settlement of the island in the 1620s and further exploring the dramatic economic and social shift that took place beginning in the 1640s. Data from Trents are being examined in relation to multi-national and global trends of the emerging modern world. Two examples of focused analyses based on the Trents data area presented in this volume. Diane Wallman presents an analysis of fauna (animal bone and shell) from the site (Wallman, this volume). And, Lindsay Bloch has completed LA-ICP-MS (Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry) of a sample of 117 sherds from Trents and Barbados that indicate a Barbadian source for the majority of both domestic and industrial wares from the site (Bloch, this volume). However, some of the industrial sugar wares cluster with samples from known sources in London and Liverpool, indicating the presence of both local and imported sugar wares. The domestic wares have a wide array of shapes and functions. They include plain, red slipped, and lead glazed varieties that were made on island by local potters along with large quantities of industrial sugar wares, tile and brick (Scheid 2015). The quantity and variety in domestic earthenware that was used in the households at Trents show that they were important materials and part of a significant local pottery production system. By the late-eighteenth century, they were being by independent potters, like the community of free black potters that established itself at Chalky Mount.

This study is using a multi-scalar, integrated approach that engages the historical and cultural complexity at a micro-history, and site-based level, while at the same time

exploring regional and global connections and intersections. The material and spatial record provide a level of detail that allows for a complex understanding that continually draws in new sources and information. Its site based focus allows for rich empirical detail that derive from lives lived and materials used at the individual, household, and site level. The objective is to generate a better understanding of an array of complex social relations among enslaved and free blacks that have been omitted in formal histories.

I did not know of Trents plantation when the project began, and I knew virtually nothing about the people who lived there. Now they have been positioned back into the cultural landscape as active players on the plantation, the island, region and world and aspects of their lives causes we to ask more questions, explore new relations, and find better answers. I cannot imagine the history of Barbados that does not include the people of Trents.

### **Acknowledgements**

This study was carried out by Syracuse University in partnership with the Barbados Museum and Historical Society and has benefitted significantly from the assistance of Kevin Farmer (Deputy Director of the Barbados Museum) and Alissandra Cummins (Director of the Barbados Museum). Throughout the project, Karl Watson has been of continual support and assistance. Annie Price, has not only put up with archaeologists digging holes on her property, but has been a gracious host and friend to the archaeological field team, hosting parties and encouraging engagement with the community. The project has been assisted by Barbados National Trust and faculty and students from The University of the West Indies, Cave Hill. This project has been funded by grants from National Science Foundation, the Wenner-Gren Foundation (two grants), the National Geographic Society (two grants), and grants from Syracuse University. Material and in-kind support have been contributed by Tate Jones and staff from LandAir Surveying Co., Roswell, Georgia and R. Christopher Goodwin of Goodwin and Associates. Matthew Reilly contributed significantly to all phases of the study, from the initial search for pre-sugar era contexts through the discovery of Trents Cave. The project could not have been carried out without the support of dozens of students from Syracuse University.

### **References**

Armstrong, D.

1990 *The Old Village and the Great House: an archaeological and historical examination of Drax Hall Plantation, St. Ann's Bay, Jamaica*. Blacks in the New World. University of Illinois Press, Urbana.

2015a. Archaeology of the enslaved laborer settlement at Trents Plantation: 2014-2015. *Journal of the Barbados Historical Society*. 61:146-177.

2015b. Cave of iron and resistance: A preliminary examination. *Journal of the Barbados Historical Society*. 61:178-199.



- 2019 (in press) Dutch economic influences in early seventeenth century settlement and the shift to Sugar slavery and capitalism in Barbados. In *Power, Political Economy, and Historical Landscapes of the Modern World: Interdisciplinary Perspectives*, edited by C. DeCorse. Braudel Center Publications, Binghamton University, Binghamton, New York.
- Armstrong, D. and K. Kelly.  
2000 Settlement patterns and the origins of African Jamaican society: Seville Plantation, St. Ann's Bay, Jamaica. *Ethnohistory* 7/2:369-397.
- Armstrong, D. and M. Reilly.  
2014 The archaeology of settler farms and early plantation life in seventeenth-Century Barbados. *Slavery & Abolition: A Journal of Slave and Post Slave Studies*. 35/3: 399-417.
- Barrallier Map of Barbados.  
1825 'To His Excellency The Rt. Honourable Stapletonn. Governor of Barbados and To the Liberal Patron Gibbes Walker Jordan Esq. F.R.S.' Dedicated to F. Barrallier Capt. J.P 25th Light Dragoons. Published by J. C. Walker Company, London.
- Beckles, H.  
2006 *A History of Barbados from Amerindian settlement to nation-state*. Cambridge University Press, Cambridge.
- Bloch, L., D. Armstrong, and J. Galley.  
2017 Unraveling global and local ceramic production networks: an LA-ICP-MS analysis of ceramics from Barbados, Jamaica, and Great Britain. Society for American Archaeology Annual Meeting, Vancouver, Canada. April 2017.
- Bridenbaugh, C. and R. Bridenbaugh.  
1972 *No Peace Beyond the Line: The English in the Caribbean, 1624-90: The Beginnings of the American People*. Oxford University Press, Oxford.
- Campbell, P.  
1993 *Some Early Barbadian History*. Caribbean Graphis & Letchworth, St. Michael, Barbados.
- Carter, H.  
2016 Resisting hegemony: black entrepreneurship in colonial Barbados, 1900-1966. Business History Conference, 2016. Viewed on line December 14, 2017. URL: [http://www.thebhc.org/sites/default/files/Carter\\_BHC%202016\\_Schwantes\\_FINAL.pdf](http://www.thebhc.org/sites/default/files/Carter_BHC%202016_Schwantes_FINAL.pdf)
- Colt, H.  
1925[1631]. 'The Voyages of Sir Henry Colt Knight to ye Islands of ye Antilleas in ye Shipp called ye Alexander, 1631.' In *Colonizing Expeditions to the West Indies and Guiana 1623-1667*, edited by V.T. Harlow, pp. 54-102. Hakluyt Society Series II Volume 56, London.

- Delle, J.  
 2011 The habitus of Jamaican plantation landscapes. In *Out of Many One People: Historical Archaeology in Jamaica*, edited by J. Delle, M. Hauser, and D. Armstrong, pp. 122-143. University of Alabama Press, Tuscaloosa.
- Drax, H.  
 1674 [probably before 1669]. Instructions on the Management of a Barbadian Sugar Plantation. Bodleian Library Manuscript, Oxford.
- Drewett, P.  
 2000 *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*. Barbados Museum and Historical Society. Archetype Publications, London.  
 2002 *Amerindian Stories: An Archaeology of Early Barbados*. Barbados Museum and Historical Society. Cole's Printery, Wilkey, St. Michael, Barbados.  
 2007 *Above Sweet Waters: Cultural and Natural Change at Port St. Charles, Barbados c.1750-BC-AD 1850*. Archetype Publications, London.
- Dunn, R.  
 1972 *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624-1713*. University of North Carolina Press, Chapel Hill.
- Finch, J., D. Armstrong, E. Blinkhorn and D. Barker.  
 2013 Surveying Caribbean cultural landscapes: Mount Plantation, Barbados, and its global connections. *Internet Archaeology*, (35). Council for British Archaeology. doi:10.11141/ia.35.5. Open Access at: [http://intarch.ac.uk/journal/issue35/finch\\_index.html](http://intarch.ac.uk/journal/issue35/finch_index.html).
- Galloway, J.  
 1989 *The Sugar Cane Industry: An historical geography of its origins to 1914*. Cambridge University Press, Cambridge.
- Handler, J.  
 1967 Father Antoine Biet's visit to Barbados in 1654. *Journal of the Barbados Museum and Historical Society* 32/2:56-76.  
 1977 Amerindians and their contributions to Barbadian life in the seventeenth century. *Journal of the Barbados Museum and Historical Society* 35:189-210.
- Handler, J., M. Conner, and K. Jacobi.  
 1989 *Searching for a Slave Cemetery in Barbados, West Indies: A Bioarchaeological and Ethnohistorical Investigation*. Southern Illinois University at Carbondale Center for Archaeological Investigations, Research Paper No. 59.
- Handler, J. and F. Lange.  
 1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. Harvard University Press, Cambridge. Harvard University Press, Cambridge.

- Hapcott, J. (Map)  
 1646 Estate plan of 300 acres of land near Holetown, Barbados, original housed in the John Carter Brown Library at Brown University. Map of Holetown Plantation [Trents] John Carter Brown Library. On line at: [http://www.brown.edu/Facilities/John\\_Carter\\_Brown\\_Library/mapexhib/describe.html](http://www.brown.edu/Facilities/John_Carter_Brown_Library/mapexhib/describe.html)).
- Harlow, V. (editor)  
 1925 *Colonizing Expeditions to the West Indies and Guiana 1623-1667*. Hakluyt Society Series II Volume 56, London.
- Hauser, M.  
 2015 The Infrastructure of nature's island: settlements, networks and economy of two plantations in Colonial Dominica. *International Journal of Historical Archaeology* 19/3:601-622.  
 2008 *An Archaeology of Black Markets: Local Ceramics and Economies in Eighteenth-Century Jamaica*. University Press of Florida, Gainesville.
- Haviser, J. (editor)  
 1999 *African Sites: Archaeology in the Caribbean*. Markus Wiener Publishers, Princeton.
- Hicks, D.  
 2007 *The Garden of the World: Historical Archaeology of Sugar Landscapes in the Eastern Caribbean*. BAR International Series 1632, Oxford.
- Higman, B  
 1998 *Montpelier, Jamaica a plantation community in slavery and freedom, 1739-1912*. Press University of the West Indies, Mona, Jamaica.  
 2011 *A Concise History of the Caribbean*. Cambridge University Press, Cambridge.
- Howson, J.  
 1990 Social relations and material culture: A critique of the archaeology of plantation slavery. *Historical Archaeology* 24/4:78-91.
- Kelly, K.  
 1989 Where is the Caribbean? French colonial archaeology in the English Lake. *International Journal of Historical Archaeology* 13/1:80-93.
- Koot, C.  
 2011 *Empire at the Periphery: British Colonial, Anglo-Dutch Trade, and the Development of the British Atlantic 1621-1713*. New York University Press, New York.
- Ligon, R.  
 1657 [2011]. *A True and Exact History of the Island of Barbados*, edited by Karen Kupperman. Hackett Press, Indianapolis, Indiana.
- Loftfield, T.  
 2001 Creolization in seventeenth-century Barbados. In *Island Lives: Historical Archaeologies of the Caribbean*, edited by P. Farnsworth, pp. 207-233. The University of Alabama Press, Tuscaloosa.

- Marshall, W.  
2012 The Panama Estates: the successful investment Project that disappointed most of the investors. *Journal of Barbados Museum and Historical Society* 58:44-59.
- Meniketti, M.  
2015 *Sugar Cane Capitalism and Environmental Transformation: An Archaeology of Colonial Nevis, West Indies*. University of Alabama Press, Tuscaloosa.
- Menard, R.  
2006 *Sweet Negotiations: Sugar, Slavery, and Plantation Agriculture in Early Barbados*. University of Virginia Press, Charlottesville.
- Newman, S.  
2013 *A New World of Labor: The Development of Plantation Society in the British Atlantic*. University of Pennsylvania Press, Philadelphia.
- Nimako, K. and G. Willemsen.  
2011 *The Dutch Atlantic*. Pluto Press, London.
- Robertson, J. and W. Funnell.  
2014 *Accounting by the First Public Company: The Pursuit of Supremacy*. Routledge, New York.
- Shilstone, E.  
1942 Some records of Trent, Carleton, and Cumberbatch families of Barbados. *Journal of the Barbados Museum and Historical Society* 9/1:32-50.
- Thomas, H.  
1954 Trent of Barbados. *Journal of the Barbados Museum and Historical Society* 21/3:121-123.
- Thompson, P.  
2009 Henry Drax's 'Instructions on the Management of a Barbadian Sugar Plantation'. *William and Mary Quarterly* 46:565-604.
- Watts, D.  
1987 *The West Indies: Patterns of Development, Culture and Environmental Change Since 1492*. Cambridge University Press, Cambridge.
- Williams, E.  
2005[1944]. *Capitalism and Slavery*. University of North Carolina Press, Chapel Hill.
- UCL (University College London).  
2013 'Legacies of British Slave-ownership.' Online website: <http://www.ucl.ac.uk/lbs>, UCL History Department. (accessed 28, February, 2013).
- BDA –Deeds and Administrations Barbados Department of Archives, Black Rock Barbados.  
1641 Deed of Sale between Daniel Fletcher and Edmund Seede. Record Book [RB] 3(2):288.

Barbados Department of Archives, Black Rock, Barbados.

- 1642 Deed of Sale Daniel Fletcher to John Dyer and his heirs, 2 June 1642 (recorded 3 January 1643). Record Book [RB] 3(1):94, Barbados, Department of Archives, Black Rock, Barbados.
- 1643 Deed of Sale between Daniel Fletcher and John Dyer. Record Book [RB] 3(1):98, Barbados, Department of Archives, Black Rock, Barbados.
- 1722 Deed of Sale between Henry Gibbes and Rev. William Trent. Record Book [RB] 3(32):308-309, Barbados Department of Archives, Black Rock, Barbados.
- 1743 Will of Lawrence Trent. Record Book [RB] 6(33):300, Barbados Department of Archives,
- 1986 ODS topographic map of Barbados.



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## 'A free prospect to the sea'

Framing an urban archaeological biography of  
Speightstown (St Peter Parish)

*Niall Finneran, Alexander Gray & Rachel Lichtenstein*

### **Abstract**

In comparison with research on plantation sites related in the foregoing chapters, archaeological projects within urban environments in the Caribbean have tended to be more limited and for the most part have mainly taken the form of rescue excavations. In this chapter three writers from very different intellectual and methodological backgrounds bring together the work they have been undertaking at Speightstown (St Peter Parish) over the last ten years. Drawing together oral and documentary history, archaeological excavation, maritime archaeology and survey and buildings recording we present a biography of social and cultural change in a small Barbadian urban setting over a three-hundred-year period.

**Keywords:** *Speightstown, urban archaeology, oral history, social history.*

### **Introduction and research context**

At Speightstown land and sea are practically interwoven. Writing in the 1650s, the English traveler Richard Ligon noted that the plantation houses on this coast faced seawards with '*a free prospect*'. A few years later Speightstown would become one of the focal interfaces between the fast-developing sugar industries of the hinterland and the outside Atlantic markets. This chapter, whilst centered upon the archaeology of a historical townscape also looks inland to the wider landscape context, as well as outwards to the sea. Urban settings offer scope for study of the interplay between many different individual and communal agents, working within the structuration of emerging

New World post-medieval, capitalist economies (cf. Knapp and Van Dommelen 2008; Johnson 1989): this cast of players comprises a multi-ethnic and dynamic *mélange* of white planters, African slaves, freed slaves, 'poor whites', quietly subversive non-conformists and Jewish merchants.

Within the context of the wider Circum-Caribbean region, Kathleen Deagan's work at St Augustine (Florida), has demonstrated how archaeology can recover material evidence for diverse and intertwined social identity (Deagan 1983 *inter alia*). At La Isabela and Puerto Real on Hispaniola, we are beginning to understand the spatial dynamics of the implanted Spanish urban townscape in an early contact period Caribbean island setting (Deagan 1996). In Jamaica, the admittedly unique case study of the Pompeii-like Port Royal (Hamilton 2006) sheds light on the subversive and counter-cultural worlds of early English Caribbean urban settlement (Mackie 2005). In Barbados, archaeological excavations directed by Fred Smith at Holetown (Smith 2004), and by Fred Smith and Karl Watson in Bridgetown (Smith and Watson 2009), although undertaken mainly within the framework of rescue archaeology settings, underscore the importance of an archaeological approach to the biography of the Caribbean island townscape.

The study presented here belongs within this broad research continuum. Starting from the contention that the urban setting in the Caribbean island has long been neglected at the expense of the Plantation (Finneran 2013), it is also important to recognize the ability of a multi-disciplinary archaeological approach to unveil the nuanced backstories of the diverse cast of players who inhabit the urban setting. Having established this manifesto, some critique of the underpinning conceptual framework is needed. The term 'archaeology' does not satisfactorily describe the approach we have taken to unraveling Speightstown's past. This requires some elucidation, and requires an overview of the evolution of the project since 2010.

The overall emphasis of the project is interpretative and hermeneutic, demanding continual reflection and reflexivity (Boado 2001). The project began in 2010 as a combined community archaeology and training project with the town as its focus. At the request of Dr. Sabrina Rampersad of The University of the West Indies, we undertook to train a small number of students in approaches as varied as excavation techniques as well as buildings and cemetery/memorial recording. University of Winchester archaeology and heritage studies students also joined the teams, and at the time of writing two masters and two undergraduate dissertations have, at the time of writing, resulted from this work. Mr. Connor Thompson Webb, a University of Winchester research student has taken over direction of the excavations since 2018.

A training ethos demands a different approach to the archaeological project design; progress is slower, and is often more repetitive given the didactic approach (Everill *et al.* 2015). For example, we have re-recorded the memorials of St Peters church at least three times, but in a sense, this emphasizes further the value of the hermeneutic epistemology. At every stage of our work new vistas and ideas have been revealed. Writing the archaeological biography of Speightstown is not a linear process, and nor does it focus on excavation alone.

In subsequent years we have developed a program of more overt historic buildings analysis and buildings archaeology survey, geophysics and fieldwalking, and broadened out churchyard memorial recording to St James (Holetown) and All Saints (Mile and



Quarter). We have undertaken limited excavation in small urban lots, gradually revealing a stratigraphic profile of the townscape. In 2012 we produced a preliminary underwater archaeology survey of the bay, revealing much about the evolution of relations between town and sea. The research design for the Speightstown Project has evolved organically and not in a structured manner. Rather than responding to a set series of defined research objectives, we have consciously reacted to circumstances in the town and beyond (Finneran 2012; 2013).

In 2015 one of the co-authors (RL) joined the team, and the project took another 'turn'. Rachel Lichtenstein is perhaps better known as a social historian of East London's Jewish community, but her focus here has been on the history of Jewish settlement on Barbados. Lichtenstein's input saw a re-orientation of the research strategy to develop a more social-oral-history methodology alongside extensive archival studies. An even greater community emphasis has now developed (cf. Cusick 1995), using digital media (Finneran, Hampden and Lathbury this volume, chapter eighteen), and perhaps most importantly we have engaged with important local social and economic needs, such as heritage tourism (Gray 2016). Our conversations with local stakeholders convince us of the importance of the role we have to play as archaeologists and heritage professionals.

### **The historical context of Speightstown**

Speightstown (13 degrees 15' 16' N; 59 degrees 38' 27' W) is the second largest town on Barbados. Located some 20 kilometers (12.5 miles) to the north of the capital Bridgetown in St Peter Parish, it is the most northernmost of the urban settlements along the western (Platinum) coast (see Figure 8.1). Beyond Speightstown to the north coastal tourism development and associated amenities give way to the open agrarian landscapes of northern St Peter Parish and St Lucy. The last population estimate in 2012 places the town's population at 2192 inhabitants. It is well known for its historical fabric and characterful buildings (see Figure 8.2).

A basic historical biography of Speightstown can be constructed through reference to wills, deeds and papers in the Barbados Museums, Historical Society journal, and material in U.K. archives and institutions (National Archives, London Met Archives, SOAS, The British Library), along with oral history testimony (gathered by RL) and newspaper clippings in the archive in the Shilstone Library, Barbados Museum (by AG). Early descriptions of Barbados, including those of Peter Heylin and Antoine Biet fail to mention Speightstown (Heylin 1652:179; Handler 1967). Ligon briefly describes 'Spikes Bay' only as a place notable for its good anchorage (Ligon 1657:25-26; In fact, Ligon's map mis-identifies Spikes Bay with Alleyne's Bay (north of Holetown)). Contemporary accounts of the Parliamentary assault on 'Spikes Bay' in 1651 mention the possibility of 'firing houses' there (Cole 1653). The site must therefore have been significant enough to merit attention, even though Ligon's map depicts it as a small cluster of houses (Figure 8.3a).

In 1631 Governor Henry Hawley divided the island into four civil precincts, each with its own court of common pleas (Poyer 1808:27-28). Although the act does not appear to outright state that one of these courts was held in Speightstown, late (eighteenth-century) accounts indicate that it was one of five precinct courts, which likely

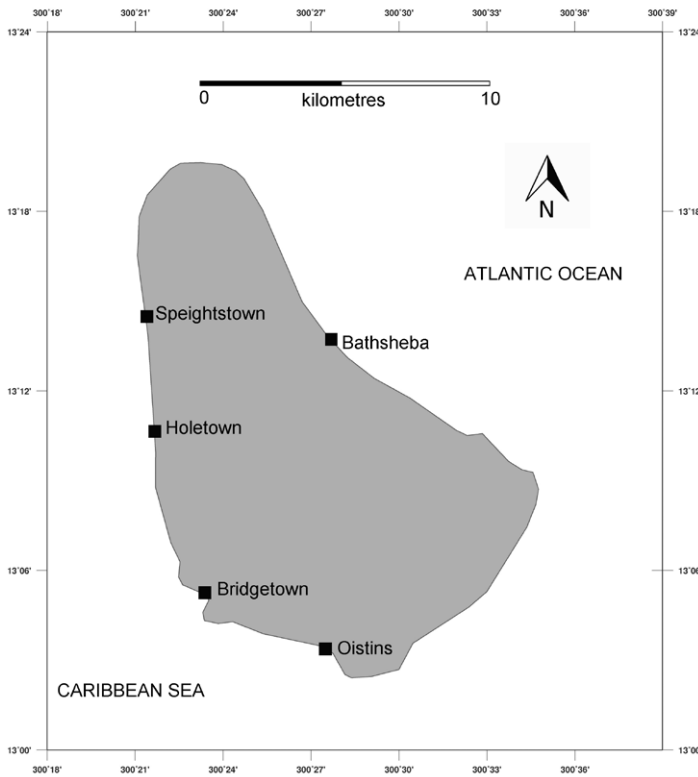


Figure 8.1.  
Location of  
Speightstown.

makes it one of the original four, considering the early settlement of plantations along the coast as opposed to the interior (Oldmixon 1708:101). In addition to this, in 1645 Governor Phillip Bell divided the island into ten parishes, and formally established a parish church in each (Poyer 1808:35). This fixes the date of the foundation of St Peter's Parochial church and court.

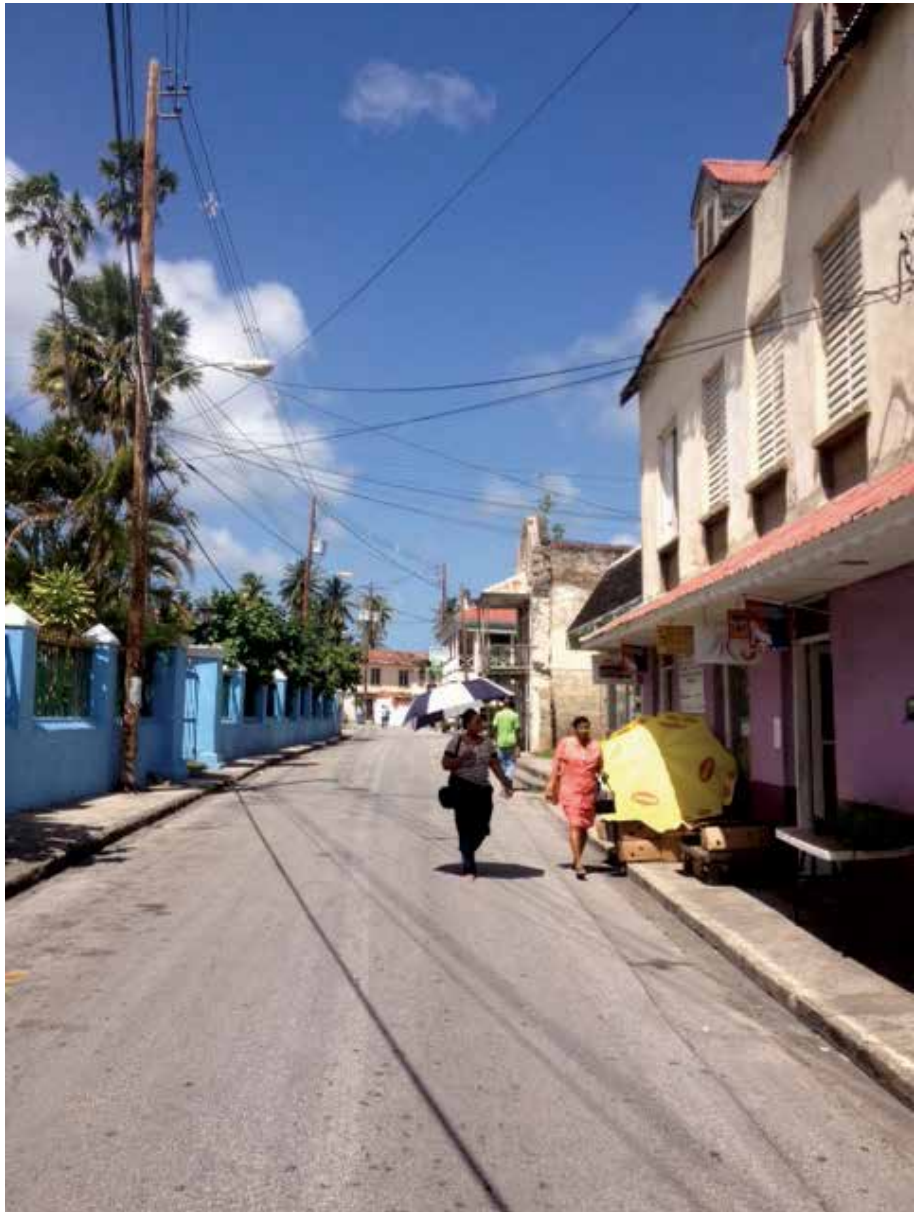
Speightstown appears to have become increasingly urbanized during the late seventeenth century. In 1656, Abbé du Tertre called Speightstown:

*'a regular city' with 'more than a hundred taverns'* (quoted in Southey 1827:15)

and in 1661 Felix Spoeri gave a more reliable account of Speightstown as a:

*'little village... so heavily populated and congested that no land whatsoever is available'* (quoted by Gunkel and Handler 1969).

During the sugar boom of the second half of the seventeenth century, agricultural cultivation on the island exploded, and much of the land was cleared for sugar production before 1700 (Parker 2011:32-44; Beckles 2006:27-44). This meant that previously unworked land in the northern parishes of St Peter, St Lucy and St Andrew, produced stock for the international market. Whilst this area was known to be less dominated by large scale sugar plantations than the south of the island, this growth, combined with



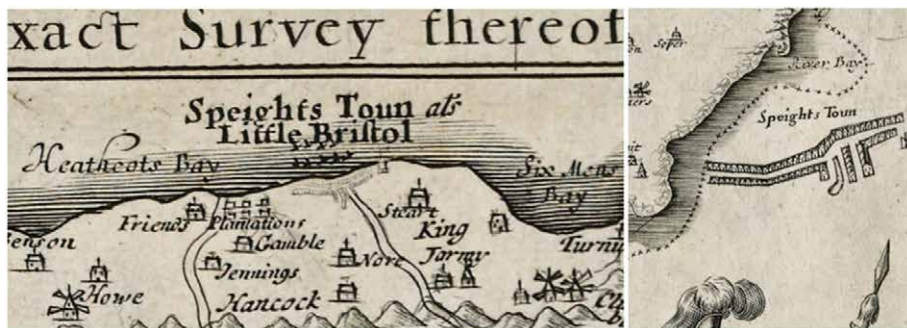
*Figure 8.2. Historic townscape: view eastwards along Church Street (2015, Niall Finneran).*

the poor quality of land links to Bridgetown, necessitated the creation of a trade port in the north of the island (Beckles 2006:27-9).

The town's growth as a mercantile port also appears to be intimately linked to a direct trade route with the English city of Bristol, something which a number of historical accounts have described as Speightstown's primary pursuit in the late seventeenth and early eighteenth centuries (Ogilby 1671:379; Sloane MS 2302 1710; Schomburgk 1848:237). In 1675 a hurricane struck the island and doubtlessly resulted in the destruction of much of the town. Another important feature of urban Speightstown,



a.

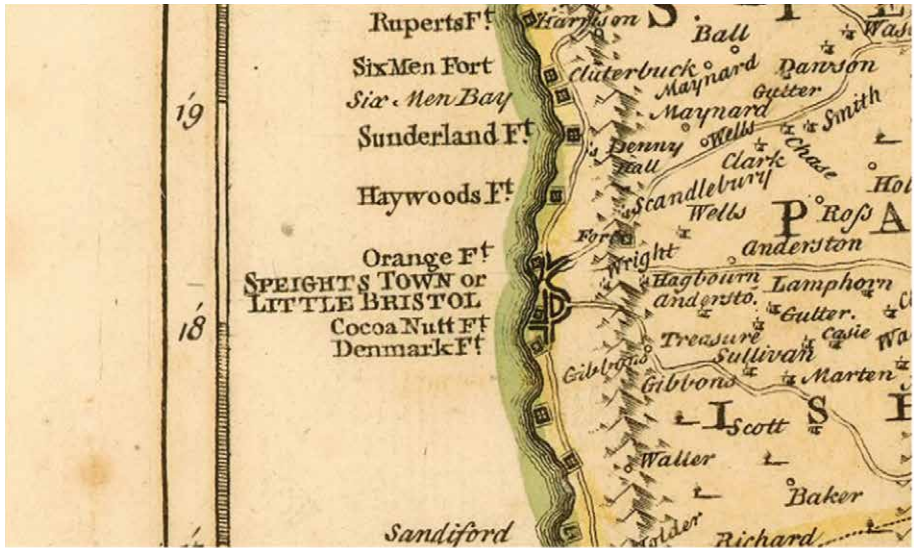


b.



c.



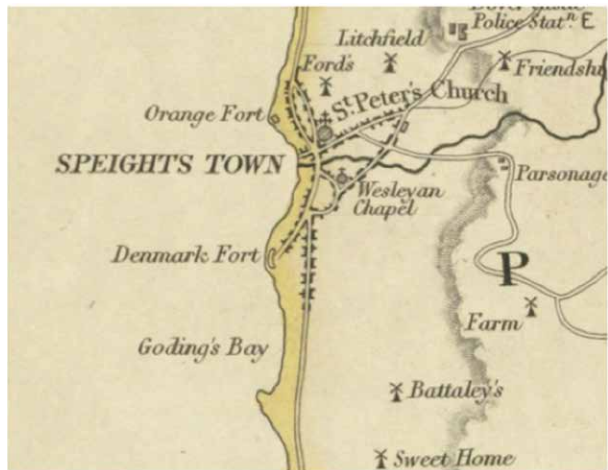


d.

Figure 8.3. Selected images of historic mapping of Speightstown: 3a Ligon 1657; Forde/Lea 1714 and detail; 3c Moll 1722/1736; 3d Hughes and Jeffreys 1750; 3e Barrallier 1825; 3f Schomburgk 1847.



e.



f.

which developed during this period, was the settlement of a sizeable Jewish community in the town. In the 1650s, conflict between Portugal and the Netherlands in the Americas likely drove the emigration of some of the Jewish population of Brazil to more stable colonies, like Barbados. John Ogilby's account of the island describes how there were a small number of Jewish merchants operating out of the island under royal decree (Ogilby 1671:379).

By the 1680s, there were around 60 Jews living in Speightstown, a community that continued to grow into the eighteenth century (Farrar 1942). This Jewish community appears to have been a substantial feature of the society. Not only was a synagogue built for the largely independent congregation, but they also formed a segment of the local militia and created a number of successful merchant ventures in the town, (Samuel 1924, Oldmixon 1708:101). Eventually, the Jewish community was *allegedly* driven out of Speightstown by a mob in 1739 as a result of the actions of an American confidence trickster named Tom Bell (Bullock 1998). Several historians have described this event as the first anti-Semitic incident in the New World, but prejudice against the Jewish community living in Barbados had been present since the first settlement (mention increased taxes, restricted engagement in various trades, Jews unable to testify in court etc.), challenging older views of a mutually respectful coexistence between the Jewish and non-Jewish communities of the Caribbean (Monaco 2009). However recent information has come to light, which posits a new theory as to the possible survival of the synagogue after its alleged destruction in 1739 and suggests the Speightstown synagogue was in fact still standing until the hurricane of 1831 (Lichtenstein 2018).

Speightstown's growth as a mercantile port fueled the creation of a cosmopolitan society and the town became home to a number of different religious and social groups. For example, there appears to have been a Quaker community in the town from its early history, which received international visitors right through to the mid-eighteenth century (Cadbury 1942:83). Whilst most colonial history in the Caribbean has focused upon slavery in the sugar plantations, in both Bridgetown and Speightstown there existed an established urban population of Afro-Caribbeans, running shops and small businesses (Beckles 2006:122). This group throughout the slave period, and had both a physical and economic impact upon the townscape.

As early as 1708 the trade that had fueled Speightstown's growth was diminishing:

*'the Bridge [Bridgetown] has lately drawn the most part of the trade thence, and the place is falling to decay'* (Oldmixon 1708:101).

The mercantile decline of the town was not immediate or complete. Thomas Walduck still described the town as being an important trading port, after Bridgetown (Sloane MS 2302 1710), and new piers were being constructed into the mid-nineteenth century for the purpose of trade (albeit over shorter distances). However, the town eventually moved from a concentration on mercantile activity to one based on a fishing industry and boat building (Finneran this volume). Owing to the poor nature of the island road system Speightstown also engaged in the transportation of goods to Bridgetown by schooner or drogher (Schomburgk 1848:237).

Major events such as the 1780 hurricane (Poyer 1808:450; Schomburgk 1848:47), the 1819 storm (which washed away settlement around the salt pond

area; Schomburgk 1848:52) and the 1831 Great Barbados-Louisiana Hurricane (Schomburgk 1848:237) would all have impacted upon the fabric of the town. Civil unrest was also a feature of this period; Ashton Hall was burnt down by a mob who were protesting against a supposed plan to reintroduce slavery, causing a number of affluent white townspeople to flee by schooner to Bridgetown (Beckles 2006:179-185). From the late nineteenth century until the 1930s, Speightstown became home to a small-scale whaling industry that developed in the context of the post-emancipation period (Finneran 2016; Finneran this volume, chapter twenty). Speightstown was well situated along the humpback whale migratory routes, and also had the benefit of an existing maritime infrastructure. Although Speightstown had ceased to be a major mercantile port by 1867, when the whalers first began operating out of the town, there was still significant maritime infrastructure (Anon 1935:96; Finneran 2016). In recent decades, Speightstown has enjoyed some success as a center for shopping in the northern parishes, although since the building of the bypass in the 1980s, this trade has also declined. Today the economic hopes of the town rest upon regeneration and tourism, its quixotic history reflected in its historical townscape and -as we have discovered - in the living memory of its twenty-first century inhabitants.

The foregoing historical overview charts the changing fortunes of a small urban cog in the wider English/British Caribbean system. Within this physical framework many different segments of colonial Barbadian society came together, and left material traces of their activities within the fabric of the townscape, creating, adapting and consuming a diverse and hybrid material culture, and forming a 'creolized' identity (Finneran 2013). These material traces survive only as fragments, recoverable though a range of methodologies. Our first approach is to consider a special category of historical document that is of considerable utility to the landscape archaeologist: historic mapping.

### **Historical mapping and urban archaeology (see Table 8.1 for references to the maps)**

There are neither detailed historical accounts of the town nor paintings that allow us to identify actual buildings (see for example Stiefel 2016:88 for a possible identification of the Nidhe Israel Synagogue, Bridgetown from a 1740's painting *Governor Robinson Going to Church*). Up until 1898 there is no detailed plan of the town itself either. Historical mapping (Figure 8.3) has demonstrated its effectiveness as a tool for landscape archaeologists in the wider Caribbean (*e.g.* Higman 1986) and also specifically in Barbados too (Armstrong 2015), and GIS allows for rectification and geo-referencing of the historical imagery, although as ever caution is needed in recognizing the veracity of first- and second-hand mapping sources (Table 8.1 summarizes the key historical cartographic sources used in this analysis).

Richard Ligon's 1657 map is somewhat misleading. Spykes' Bay as shown on his map clearly should accord with Alleyne's Bay to the north of Holetown. The most northerly church along the coast as depicted by Ligon should be identified with St Peter, and this is associated with the toponym 'Balises Bay' (Figure 8.3a). This name would clearly link to a feature shown on future maps, Coll Bayley's/Balise's Well, located to the south of the town. Additionally, the only named plantation in the locality on

the Ligon map that survives on later mapping is that of Nelson (again to the south of Speightstown). In addition, we can clearly identify 'Macock' (Maycock) to the north of this church. Therefore, the church shown to the south of Spyke's Bay on the Ligon map is St James. Ligon's map shows a church with a spire and a west-east running road (obviously identifiable as Church Street) that takes a sharp southwards turn inland. This is a feature we can trace on later maps, such as Billaine's 1674 and Speed's 1680 maps (which are surely both based directly upon Ligon's survey) but also on a presumably original un-named 1680 survey, and also on Shomburgk's 1847 and Taylor's 1859 emendation of Mayo's 1721 survey. The road turns south at the 'parsonage'; this is also indicated on the 1898 street map showing 'glebe' or church land, and suggests an identification with Farm Road.

Ligon indicates a cluster of a few houses around the coastal termination of the west-east running road. Of the named houses (from north to south: Doton, Paris, Guy, Hanley, Hennigsworth, Sandforde, Webb, Ware and Nelson), none are indicated on Ogilby's 1671 map. On this map, 'Spickes Towne' is indicated lying north-south along the coast and not extending below the river/salt pond (roads are not shown). 'Coll Bayley's Well' is marked to the south of this feature. Richard Forde's 1674 survey shows 'Speights Toun als Little Bristol' (sic) (the first time we meet the latter term) lying on a north-south coastal axis, an indication of the west-east running road (Church Street) and a faint indication of the extent of the salt pond (it should be noted that as a Quaker, Ford did not indicate churches or fortifications on his charts).

An untitled coastal survey map (BL MS Sloane 2441 1684) indicates both 'Spixes Towne' and 'Con'll Bales well' to the north of a water feature; William Hack's 1690 survey is likely based upon that of Forde, and shows 'Speightstown and Bay' lying along the coast and between two pre-St Patrick's Cross Union Flags. Phillip Lea's 1698 map shows 'Little Bristol or Speights Town' as lying north-south along a roadway along the coast, with Church Street running perpendicular to this and heading in a north-westerly direction, following an alignment towards Mile and Quarter (indicated in William Speight's Will as being the limit of his original lands; Finneran 2013).

As we move into the eighteenth century, more cartographic detail emerges. Phillip Lea's updated edition of the Forde map shows 'Speights Toun als Little Bristol' in the same manner as the original, but adds a further cursory street plan at the right hand side of the map, this time indicating 'Speights Toun' (suggesting perhaps the identification with Little Bristol was falling out of fashion) with a long house lined north-south running road (Queens Street/Orange Street), houses clustering at the western end of Church Street with a church tower indicated and a comma-shaped salt pond on the other side of the road (Figure 8.3b).

In addition, Lea marks a house to the south as 'Friends' suggesting an identification with the Quaker Meeting House indicated on later maps. Moll's (1722, 1736 and 1744) maps and Senex and Mayo's 1722 maps are the first to indicate the positions of the three main urban forts (from north to south: Orange, Coconut and Denmark) as well as the development of the half-moon shaped street plan of Godding's Alley/Chapel Street, encompassing the curtilage of Arlington House, and the further extension eastwards of Chapel Street and Church Street. Quaker's Meeting House is also identified here, now just off an extended and lengthy north-south running coastal route (the first time we have seen this feature; Figure 8.3c).



Senex and Mayo's map more clearly shows the positions of the fortifications and the church and shows four named houses in and around the town: Burnett in the north, Wright to the east, Misson and Nelson (Senex is shown as a landowner on the Ligon map, but does not appear later on). Subsequent maps use as their base either the Ford/Lea surveys (*e.g.* by Van Keulen in 1725) or the Moll and Senex/Mayo surveys (by Homann Heirs in 1730 and Emmanuel Bowen 1747). The next wholly new survey is conducted by Rev Griffith Hughes in 1750 and drawn by the noted cartographer Thomas Jeffreys in 1750 (Figure 8.3d). This is the final time that Speightstown is identified as Little Bristol on an English map (it is shown as 'Petit Bristol' on Bellin's French 1758 map and on Lopez's 1780 Spanish map as 'Pequeño Bristol'), and in terms of street layout we see a small west-east running street alongside the south side of Coconut Fort (this is identifiable as late as the 1898 map as Fort Alley). Jeffrey's later 1775 map (an 'improvement' of Mayo) is clearly augmented by Hughes' 1750 material. This map gives great prominence to the Quaker's Meeting House, shown to the south of the Nelson residence, itself further southwards from Denmark Fort (a French version of this map was published in 1779, and Bryan Edwards Map of 1794 is clearly based upon this source but shows no indication of the forts at Speightstown).

Fielding Lucas' 1823 map is similarly based upon the Jeffreys/Hughes source, shows no roadways and depicts Speightstown as a highly stylized cruciform urban pattern. The Quaker's Meeting House and the three forts are all indicated but the church is not. Captain Barrallier's new 1825 survey on behalf of the Governor Lord Combermere shows now a more extensive urban layout (Figure 8.3e). Coconut Fort is no longer indicated suggesting it had now fallen out of use. The full extent of the beach is indicated, and it is also apparent that the salt pond/watercourse feature was still un-culverted, and the central area of the town prone to flooding. Houses are also indicated along the western edge of the present churchyard. Schomburgk's 1847 adaptation of the Mayo survey indicates a development of the road pattern to the east of the town and (presumably) the draining of the salt pond. For the first time the Methodist (Wesleyan) Chapel is indicated on a site now occupied by the School (Figure 8.3f). Taylor's 1859 'corrected and improved' version of Mayo's survey adds little to the Schomburgk map.

The 1898 map in the *Speightstown Directory* of that year identifies for the first time the names of the actual jetties and shows a relocation of Battaley's plantation to the south of the town (its former site now occupied by Heywoods Plantation) and shows that in the intervening forty years the Methodist Chapel has relocated to its present position. No forts are indicated. Finally, the 1960 map shows the St Peter's Almshouses on the site of Denmark Fort. Analysis of these cartographic sources allowed us to target specific areas for archaeological excavation and survey. The following section describes in outline some of these findings.

### **Archaeological excavation and survey in Speightstown**

Archaeological excavation in an urban environment is problematic and logistically can be difficult. We have excavated four sites within the town itself, and only in a small scale (Figure 8.4). In 2012, we excavated a small test unit at the western edge of the St Peter's Churchyard. This unit aimed to identify the footprints of houses shown on historic mapping (*e.g.* the maps of Lea/Forde in 1714, the map of Moll in 1722 and

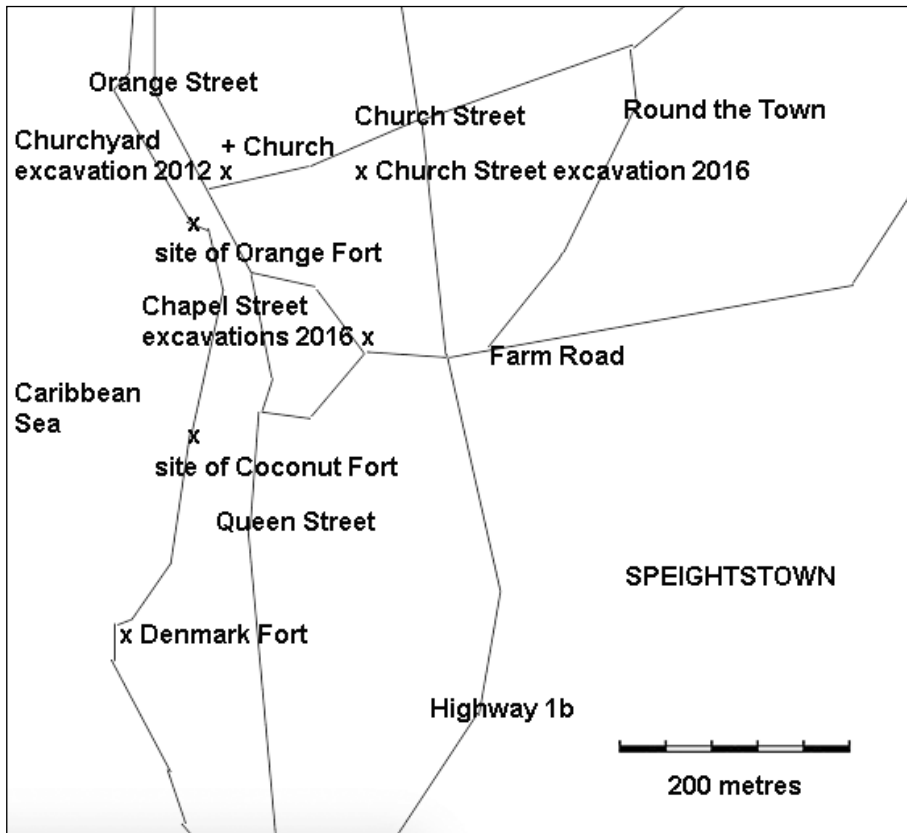


Figure 8.4. Map of Speightstown showing sites mentioned in the chapter.

1736, and Barrallier's map of 1825). Fragmentary stone foundations were located here and associated in the lower contexts with late-eighteenth century glass and very fragmentary ceramics. The stratigraphy here was much disturbed however. Excavations in the compound of the Methodist School, Chapel Street in 2016 did not yield much cultural evidence, but indicated make up and consolidation of the former banks of the Salt Pond overlying a sterile sandy matrix. Pre-contact ceramic material was noted widely in the locality around the southern boundary of the salt pond. Excavations just off the south side of Church Street in 2016 delineated the cut stone foundations of a structure running perpendicular to the roadway; this structure was associated with nineteenth century ceramics (Figure 8.5). Finally test pitting on the site of Denmark Fort in 2013 yielded evidence of the later Almshouse phase (twentieth century), the most noteworthy feature being the discovery of the remains of the toilet block.

Surveying the fortifications within the town and along the coastline has been an important part of the overall project. The initial legislation for the fortification of the island was undertaken in 1631 and 1650, which is the period when Speightstown was likely first fortified (Poyer 1808:35). Accounts of the Parliamentary attack in 1651 generally confirm that there was a fort of some sort in place at the town (possibly called Fort Royal) though accounts of the size and location of this early battery are confused (Poyer 1808:59). In the following decades, most fortifications along the west coast ap-



*Figure 8.5. Excavations at Church Street site (2016, Niall Finneran).*

pear to have been rebuilt (Oldmixon 1708:101), and John Ogilby described a second fort defending the town in 1671 (Ogilby 1671:379).

The first detailed account of the Speightstown fortifications comes from a 1684 government report that lists five forts in Speightstown totaling 39 guns (Sloane MS 2441 1684): Speights Fort (19 guns), Clutterbuck Fort (7 guns), Cokernut (sic) Fort (3 guns) Botelers Fort (5 guns) and Ruperts Fort (5 guns). Using William Mayo's 1722 map, we can propose that Rupert's Fort and Clutterbuck Fort were located outside of the northern limits of the town, whilst Speights, Cockernut and Botelers Forts all likely refer to forts within the town. (Speights Fort and Boteler's Fort are likely Orange and Denmark Forts; Orange fort is consistently described as the larger of the two, meaning that Speight's Fort likely became Orange, and Boteler's likely became Denmark).

Despite the existence of three forts within the limits of the town, eighteenth century descriptions of Speightstown generally refer to only two (Labat and Eaden 1970:123; Oldmixon 1708:101). This appears to be because Orange Fort was considered the town's main defense, being the largest and directly opposite the parish church and Coconut and Denmark are alternately considered less important to the town. For example, Oldmixon specifically excluded a fort on Heathcot's Bay (the former

name of Godding's Bay, meaning that he was excluding Denmark Fort) as it was on the southern extremities of the town (Oldmixon 1708:101). Conversely, Governor Pinfold's 1762 report on the island's fortifications only listed Orange and Denmark Forts, indicating that the smaller Coconut emplacement may have fallen out of use in the first half of the century (Anon 1933:21).

In 1933, the Barbados Museum and Historical Society published a brief survey of all of the historic architecture of the island. Denmark Fort was listed as having five guns remaining (of the five listed in Governor Pinfold's 1762 Report on Fortifications) three of which still had their carriages, and the fort itself was said to be 'in very good preservation' (Anon 1933:21). Orange Fort was in a somewhat worse state, with most of the masonry platform having been demolished prior to 1910, and of the 18 guns listed in the 1762 report, nine were remaining, though seven of these were in the sea at the base of the fort (Anon 1933:21). These appear to be have been recovered later and re-sited.

Denmark Fort itself has largely fallen into the sea; a lone (and rapidly corroding) cannon on a concrete pedestal and an angle of wall is all that remains of the original structure which must have been largely obliterated during the construction of the twentieth century Almshouses on the site, and underwater survey of the sea bed around the site did not yield any archaeological material (Figure 8.6). As for the remains of Coconut Fort, there is no solid standing structure, however, the site of the fort can be closely estimated from a number of maps, which would put it in or close to an empty plot opposite Arlington House, on Queen's Street (shown on the 1898 map as 'Fort Alley'). In the structures surrounding this plot, particularly on the beachfront, there are several exterior walls that are made up of a number of materials, including masonry, which may have come from Coconut Fort. The Promenade and Fish Market occupies the site of Orange Fort, and a 1960s photograph in the possession of Mr. Clement Armstrong shows a line of cannon there and no other structure.



Figure 8.6. Site of Denmark Fort looking south-westwards (2016, Niall Finneran).

Further northwards, using Mayo's 1722 mapping as a source, we can clearly identify the sites of the other fortifications. Heywood's Fort (likely formerly Clutterbuck's Fort) was destroyed during construction of the Port St Charles marina in the 1990s. Nothing exists of the coastal fort at Six Men's Bay, but the inland fort indicated on Mayo's 1722 map to the north-east of Clutterbuck's house is still visible. This feature, evidenced by a series of large cannon pointing seawards behind a low wall, is located to the south of the old hollow way and track that links Six Men's with the interior of the island, and to the north east of the Port Ferdinand marina complex. The fort is also associated with a presumed slave settlement, well and pond complex to the north which in turn may be associated with the Colleton plantation. Rupert's Fort is retained within the fabric of the Fish Pot restaurant north of Six Men's, and remains of the fort at Half Moon (Moon Village) were recorded in 2013 in the garden of local resident, Mr. Karl St John, and comprise two cannon and a low curve of wall.

Moving northwards still, in 2011 and 2012 small-scale excavations took place at the site of Maycock's Fort. Within the fort itself, excavation yielded evidence of an earlier phase of construction. Later phases of use, associated with late eighteenth and early nineteenth century occupation (according to the ceramic material) suggests an informal militia occupation (see Finneran 2013); non-standard caliber ordnance and gun furniture (recognizable, albeit highly corroded) suggested that this was not the site of a regular army presence. North of the fort, adjacent to prehistoric midden material, geophysical survey yielded suggestions of an associated slave village, and excavations here yielded significant quantities of low-fired earthenware pottery. This discussion of the fortification system has physically removed us somewhat from the townscape of Speightstown, but in the case of the Maycock's excavations adds strength to this notion of cultural creolization and localized adaptation over the last four hundred or so years. This much is clearly seen, for example, in the extant historic architecture of the town.

### **The creolized townscape: archaeology and social identity**

Local mercantile needs evolved a distinctive house form where the shop spaces were on the lower floor and the living spaces on the top. In some cases, local adaptation in architecture can be carried further. Arlington House, now a Museum, retains the character of an eighteenth-century mercantile residence and likely forms the archetype for the 'single house' of Charleston, South Carolina (where the long, narrow house plan is set at right angles to the street; the building itself is only one room wide; Herman 1997). The transfer of this architectural style to the colony of Charles Towne (founded by merchants from Speightstown, among others) indicates the cultural connectivity of the Anglophone Atlantic world at this time (Greene 1987).

St Peter's Church also evidences a process of architectural creolization at work. These parish churches (although often rebuilt and greatly altered) are not mere copies of English eighteenth century Georgian archetypes but distinctive developments in their own right. The present building was rebuilt following a fire in 1981, and in any case much of the fabric of the predecessor can only have dated after the great storm of 1831 (in 2010, prior to the re-facing of the Church we were able to undertake a great deal of detailed architectural recording of the fabric of the building). Particular

attention attaches to the eastern end of the church where the presence of vaults beneath the 'apse' suggests the survival of an earlier, pre-1831 phase of building.

Recording of commemorative monuments within the church building itself has been a valuable training exercise as well as providing an important overview of shifts in the material culture of death over time. It is very clear that in the case of St Peter, for example, that in comparison with the heavily historically managed graveyard at St James, Holetown, the graveyard here is very much in continual use and is evolving. A basic typology of grave form has been formulated, starting with the familiar earlier family vaults, perhaps indicative of a more communalized ritual associated with developing a sense of ownership and belonging on the island in earlier years. As we move through to the nineteenth century a more overt emphasis upon remembering becomes clear, as does memorialization without a body. In the late nineteenth century and into the twentieth century, Afro-Caribbean bodies are now memorialized via mimesis of earlier grave forms (Bowey 2012).

Survey work on the memorials and ritual space of the Church at All Saints inland from Speightstown, for example, indicates its strong nineteenth century Anglo-Catholic, High Church identity (evidenced through extensive use of stained glass, decoration and stations of the cross) of the Planters perhaps at odds with the less rigid atmosphere of mercantile Speightstown. Further down the hill, the cave at 'Arawak Castle' (Finneran 2013: figure 11; Smith and Bassett 2016) with its carved cherub design surely speaks in another age, of hidden Christian practice, in the place of the Roman Catholic recusants of the late seventeenth century, rather than the ritual space of runaway slaves, or indeed 'poor whites'. The Quaker House at Speightstown, long marked on maps, has disappeared, but the associated non-conformist burial ground survives to the south of the town. Graveyard and memorial survey here attest to the continued reuse and re-adaptation of these spaces; there are no remains of non-conformists left. The earliest recorded grave is from the 1850s, and is Anglican.

And what of the Jewish population? Samuels' 1924 paper that outlines the state of Jewish colonization of Barbados in the 1680s was based upon examination of a number of public documents and wills deposited in U.K. archives at the time (Samuel never personally visited Barbados), many of which, as one of the present authors (RL) has discovered, are not found in either the National Archives in London or the Black Rock Archives (Barbados). Many of Samuel's assertions, which have implications for reconstructing the Jewish presence in Speightstown, cannot therefore be checked. Other sources offer clues as to the nature of this community (Lichtenstein 2018). Schomburgk states that in 1846 there were:

*'five [Jewish] burial-grounds [on the island], three of which are completely filled'.*  
(Schomburgk 1846: 97)

Four of these burial sites are still to be found in Bridgetown, three around the Nidhe Israel complex and a further smaller burial ground for suicides and paupers in Whites Alley. Therefore, it is reasonable to presume the fifth burial ground he mentions would have been in Speightstown near to the only other synagogue on the island. Jewish law regarding burial states that if permissible a Jewish person should be buried within a 24-hour period. If a Speightstown Jew had died in the seventeenth century on a Friday

they would not have been able to have been buried until the following Sunday. If they shared their burial ground with the Bridgetown Jews then they would have needed to transfer the body by boat to Bridgetown after this long wait and along poor roads. We may therefore assume, given the effect of the heat upon the corpse, that there *probably would* have been a burial ground somewhere in Speightstown.

Oldmixon, writing in 1708 states that Speightstown:

*'consists of one long street, call'd Jew Street.'* (Oldmixon 1708:101)

Jew Street is also mentioned in the will of Rachel Mendes (widow of the leading Speightstown Jew Joseph Mendes) dated 1711 when she bequeaths to her niece Sarah Massiah:

*'one certain house situate in Speightstown in Jew Street bounding east on a house of Daniel Villoa, west on a house belonging to myself, south on the pond and north on the street to her the said Sarah Massiah'* (Jonathan Wells pers. comm.).

Whereas Ligon's map only shows the single east-west running road, Ford's map indicates a heavy concentration of houses along the coastal north-south running road. This could more likely be described as a 'street' rather than 'road'.

The position of the salt pond as a boundary marker ('south on the pond') could equally suggest that the west-east running road, Church Street, was also a candidate for the site. This contention is further strengthened with reference to the French geographer Bellin's 1758 account), where he states:

*'the longest (street) is called 'The Street of The Jews' that conducts up to the sea-shore.'* (Bellin 1748:70)

As we have seen above, the synagogue is suggested to have been destroyed by a mob in 1739, but at least one source, citing the caretaker of the Bridgetown synagogue in 1909, suggests that the building was still standing until 1831 when it was destroyed in the hurricane of and never rebuilt (Davis 1909:145; but see Schomburgk 1846:97 who suggests this might have been the case with Nidhe Israel.). The Jewish population certainly did return to Speightstown after the alleged 'sacking' of the synagogue in 1739, as a separate tax was imposed on the Speightstown Jews in 1756 (Faber 1998:92) and in Moses Mendes will, 1758 (National Archives, London) he states:

*'I leave one hundred pounds to the elders of the synagogue of St Peter Speightstown in Barbados'*

Thus, implying the Speightstown Synagogue was still functioning at that date.

It should also be noted that the synagogue itself might not be situated on 'Jews Street', the name could refer to the area of main Jewish habitation and trade (a Jewish Bridgetown in microcosm, in fact; cf. Stern 1993). Oral history records gathered by one of the authors (RL) place the site of the synagogue on Church Street (at varied locations) and also on the site of the Methodist School, Chapel Street (formerly the



Methodist Chapel itself). It has been suggested that graves were once located here (according to informants interviewed by RL), and in addition that the interplay of ownership between non-conformist and Jewish property was fairly fluid. It would also be expected that a ritual bath, a *Mikveh*, would be found here too; this would require a source of fresh water, and our informants tell us that these are to be found in the area of Chapel Street (and of course one is marked as being within the rough area as Col Bayley's Well on the historic mapping).

## Conclusion

The foregoing overview has necessarily skipped many details of our work. Much remains to be written. It is hoped however that some element of the fluidity and change inherent in the fabric of Speightstown's urban biography has been conveyed. Using a range of interrelated methodologies and immersing ourselves in the urban space and its sites, we hope to be able to continue to write the story further. There is much that can be done here in terms of methodological and conceptual research. Further, it is to be hoped that our work has positive social and economic impacts too, beyond the scope of the narrowly 'academic' work. From 2010 the project has mapped and undertaken conditions reports of 87 defined historic buildings as a strategy of preservation by recording. Economic demands have placed a great tension between the demands of consumers and owners on one hand, whose livelihoods are dependent upon tourism, and heritage professionals on the other (Gray 2016). We need to continue this dialogue. Tourism has huge potential for the town, but it is too far away from the main tourist routes and cruise itineraries to rely on chance footfall. Speightstown needs to make its rich history work for the present (cf. Abdool 2002), and we see our role as helping to facilitate this.

## Acknowledgements

This paper is dedicated to the Speightstown community who have embraced with enthusiasm the work we have undertaken. Out of them all we recognize the work of Clement Armstrong. We also acknowledge the help of Jonathan Wells, who has been assisting both Rachel Lichtenstein in her archival researches and Niall Finneran in archaeological excavations for the past two years, and to the many students and visiting excavators past and present who have shaped the project.



Author/ Publisher	Date	Title	Reference
Richard Ligon	1657	<i>A Topographical Description and Admesurement of the Yland of Barbados in the West Indayaes. With the Ms Names of the Seueral Plantacons.</i>	Reference: British Library: <a href="http://www.bl.uk/onlinegallery/onlineex/carviewsvirtex/aftrade/ylandbarb/zoomify70912.html">http://www.bl.uk/onlinegallery/onlineex/carviewsvirtex/aftrade/ylandbarb/zoomify70912.html</a> .
John Ogilby/ Arnoldus Montanus	1671	<i>Novissima et Acuratissima Barbados</i>	Reference: David Rumsey Map Collection: <a href="http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~292967~90066926:Novissima-et-Acuratissima-Barbados?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&amp;qvq=q:Barbados%2BOgilby;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&amp;mi=78&amp;trs=135">http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~292967~90066926:Novissima-et-Acuratissima-Barbados?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&amp;qvq=q:Barbados%2BOgilby;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&amp;mi=78&amp;trs=135</a>
Louis Billaine	1674	<i>Description Topographique et mesure de Lisle [sic] des Barbades aux Indes Occidentales avec les Noms de ceux a qui appartiennent les habitations</i>	Reference: John Carter Brown Library, Brown University <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1943~106650006:Description-Topograph%C3%AFque-et-mesure?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=4&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1943~106650006:Description-Topograph%C3%AFque-et-mesure?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=4&amp;trs=33</a>
Richard Forde	1675	<i>A new Map of the Island of Barbadoes wherein every Parish, Plantation, Watermill, Windmill and Cattlemill is Described.</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1133~100880001:A-New-Map-of-the-Island-of-Barbadoe?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=7&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1133~100880001:A-New-Map-of-the-Island-of-Barbadoe?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=7&amp;trs=33</a>
John Speed; publisher Bassett and Chiswell.	1676	<i>A Map of Jamaica/ Barbados. Part of 'A Prospect of the Moset Famous Parts of the World'</i>	Reference: David Rumsey Map Collection: <a href="http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~285396~90058069:A-Map-of-Jamaica--Barbados?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&amp;qvq=q:Barbados%2BSpeed;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&amp;mi=0&amp;trs=2">http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~285396~90058069:A-Map-of-Jamaica--Barbados?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&amp;qvq=q:Barbados%2BSpeed;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&amp;mi=0&amp;trs=2</a>
Unknown	1680	Untitled. British Library Sloane MS2441	Reference: British Library: <a href="http://www.bl.uk/onlinegallery/onlineex/carviews/m/zoomify69851.html">http://www.bl.uk/onlinegallery/onlineex/carviews/m/zoomify69851.html</a>
William Hack	1690	William Hack's Atlas	Reference: British Library: <a href="http://www.bl.uk/onlinegallery/onlineex/carviews/i/zoomify69829.html">http://www.bl.uk/onlinegallery/onlineex/carviews/i/zoomify69829.html</a>
Phillip Lea (Publisher)	1696	<i>The principall islands in America belonging to the English Empire viz Iamaica, Barbados, Antegoa, St. Christophers, &amp; Bermudos</i>	Reference: John Carter Brown Library, Brown University <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3182~101512:The-principall-islands-in-America-b?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=9&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3182~101512:The-principall-islands-in-America-b?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=9&amp;trs=33</a>

Table 8.1. Historic cartographic sources for Speightstown.

Author/ Publisher	Date	Title	Reference
Phillips Lea's updated Richard Forde map	1714 or later	<i>A new map of the island of Barbadoes wherein every parish, plantation, water-mill, windmill &amp; cattlemill, is described with the name of the present possesor, and all things els remarkable according to a late exact survey thereof</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3343~101620:A-new-map-of-the-island-of-Barbadoe?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=14&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3343~101620:A-new-map-of-the-island-of-Barbadoe?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=14&amp;trs=33</a>
H Moll	1722/1736 (Pub. T. Bowles)	<i>The Island of Barbadoes: Divided into its Parishes, with the Roads, Paths &amp;c. According to an Actual and Accurate Survey.</i>	Reference: British Library: <a href="http://www.bl.uk/onlinegallery/onlineex/maps/americas/zoomify140155.html">http://www.bl.uk/onlinegallery/onlineex/maps/americas/zoomify140155.html</a>
H Moll	1744 ed. (German version based upon Oldmixon?) Publisher Meyer	<i>Eine Neue Charte der Insel Barbadoes</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1996~107370003:Eine-Neue-Charte-der-Insel-Barbadoe?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=23&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1996~107370003:Eine-Neue-Charte-der-Insel-Barbadoe?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=23&amp;trs=33</a>
John Senex/ William Mayo	1722	A New & Exact Map of the Island of Barbadoes in America According to an Actual & Accurate Survey Made in the Years 1717 to 1721 ...	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1983~107090006:A-New-&amp;-Exact-Map-of-the-Island-of?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=16&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~1983~107090006:A-New-&amp;-Exact-Map-of-the-Island-of?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=16&amp;trs=33</a>
Gerard Van Keulen	1725	<i>Nieuwe Land en Zeekart van het Eyland Barbados gelegen in West India onder de Caribesse Eyland</i>	Reference: Norman B Leventhal Map Center, Boston Public Library: <a href="http://www.leventhal.ap.org/id/14247">www.leventhal.ap.org/id/14247</a>

Author/ Publisher	Date	Title	Reference
Homann Heirs	1730	<i>Dominia Anglorum in præcipuis Insulis Americæ ut sunt Insula S. Christophori, Antegoa, lamaica, Barbados – ex Insulis Antillicanis nec non Insulæ Bermudes vel Sommers dictæ, singulari mappa omnia exhibita et edita ab Homannianis Heredibus = Die Englische Colonie-Laender Auf den Insuln von America und zwar die Insuln S. Christophori, Anteoga, lamaica, Barbados alles Antillische Insuln samt den Ins. Bermudes sonst Sommers genant, auf einem besondern Blaatsæmtle vor gestellet u. herausgegeben von Homaennischen Erben</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3090~101449:Dominia-Anglorum-in-pr%C3%A6cipuis-Insul?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=18&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3090~101449:Dominia-Anglorum-in-pr%C3%A6cipuis-Insul?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=18&amp;trs=33</a>

Table 8.1. Historic cartographic sources for Speightstown (continued).

Author/ Publisher	Date	Title	Reference
Emmanuel Bowen	1747	<i>Barbadoes</i>	Reference: David Rumsey Historical Map Collection: <a href="http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~2616~280032:Barbadoes-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No;lc:RUMSEY~8~1&amp;mi=146&amp;trs=157">http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~2616~280032:Barbadoes-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No;lc:RUMSEY~8~1&amp;mi=146&amp;trs=157</a>
Griffith Hughes and Thomas Jefferys	1750	<i>A Map of the Island of Barbados Drawn from an Actual Survey, and from the Observations of the Revd. Mr. Griffith Hughes, M.A.F.R.S. By Thomas Jefferys, Geographer</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~2792~101291:A-Map-of-the-Island-of-Barbados-Dra?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=24&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~2792~101291:A-Map-of-the-Island-of-Barbados-Dra?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=24&amp;trs=33</a>
Jacques Nicolas Bellin; published by Pierre Diderot, Paris	1758	<i>Carte de la Isle de la Barbade</i>	Reference: Norman B Leventhal Map Center, Boston Public Library <a href="http://www.leventhalmap.org/id/14246">www.leventhalmap.org/id/14246</a> . Also 1764 version with less detail David Rumsey Map Collection: <a href="http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~232799~5509424:Carte-de-l-isle-de-la-Barbade-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No;lc:RUMSEY~8~1&amp;mi=155&amp;trs=157">http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~232799~5509424:Carte-de-l-isle-de-la-Barbade-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No;lc:RUMSEY~8~1&amp;mi=155&amp;trs=157</a>
Thomas Jefferys; publis- hed by Sayer and Bennett	1775	<i>Barbadoes, surveyed by William Mayo, engraved and improved by Thomas Jefferys, Geographer to the Kind. London, printed for Robt. Sayer, Map &amp; Printseller, no. 53 in Fleet Street as the Act directs 20 Feby 1775</i>	Reference: David Rumsey Map Collection: <a href="http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~2817~310066:Barbadoes-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No;lc:RUMSEY~8~1&amp;mi=151&amp;trs=157">http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~2817~310066:Barbadoes-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSource_No;lc:RUMSEY~8~1&amp;mi=151&amp;trs=157</a>
French version of Jefferys/ Mayo above	1779	<i>La Barbade Levée par G. Mayo Gravée par Jefferys</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~6194~115902349:La-Barbade-Lev%C3%A9e-par-G--Mayo-Grav%C3%A9e?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=27&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~6194~115902349:La-Barbade-Lev%C3%A9e-par-G--Mayo-Grav%C3%A9e?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=27&amp;trs=33</a>
Spanish version of Jefferys/ Mayo, D J Lopez	1780	<i>Carta de la isla de la Barbada reducida y gravada por D. Juan Lopez, pensionista de S.M</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3341~101625:Carta-de-la-isla-de-la-Barbada-redu?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=28&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3341~101625:Carta-de-la-isla-de-la-Barbada-redu?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=28&amp;trs=33</a>
Bryan Edwards, pub J. Stockdale	1794	<i>Map of the island of Barbadoes for the History of the West Indies / by Bryan Edwards Esq</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~2652~101192:Map-of-the-island-of-Barbadoes-for-?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=29&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~2652~101192:Map-of-the-island-of-Barbadoes-for-?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=29&amp;trs=33</a>

Author/ Publisher	Date	Title	Reference
Fielding Lucas Jnr, Baltimore	1823	<i>Barbadoes</i>	Reference: David Rumsey Historical Map Collection: <a href="http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~94~10156:Barbadoes-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2Cseries_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2Cseries_No;lc:RUMSEY~8~1&amp;mi=147&amp;trs=157">http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~94~10156:Barbadoes-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2Cseries_No&amp;qvq=q:Barbados;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2Cseries_No;lc:RUMSEY~8~1&amp;mi=147&amp;trs=157</a>
Captain Barrallier	1825	<i>To His Excellency the Rt. Honble Stapleton Lord Combermere Commander in Chief of the Army in India, Colonel of the 3rd. Regiment of Dragoons, GCB, GCH, KTS, KSF &amp;c. &amp;c. &amp;c. Late Commander of the Forces in the Windward and Leeward Charibee Islands &amp;c. &amp;c. &amp;c. and Governor of Barbados, and to a liberal patron Gibbes Walker Jordan, Esqr. F.R.S. the late Colonel Agent for that island This trigonometrical survey [of Bardados] is most respectfully dedicated by their most obedient humble servant F. Barrallier, Captain H[alf] P[lay] 25th, Light Dragoons</i>	Reference: John Carter Brown Library, Brown University: <a href="http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3985~102063:To-His-Excellency-the-Rt-Honble-St?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=32&amp;trs=33">http://jcb.lunaimaging.com/luna/servlet/detail/JCBMAPS~1~1~3985~102063:To-His-Excellency-the-Rt-Honble-St?sort=normalized_date%2Cfile_name%2Csource_author%2Csource_title&amp;qvq=q:Barbados;sort:normalized_date%2Cfile_name%2Csource_author%2Csource_title;lc:JCBMAPS~1~1&amp;mi=32&amp;trs=33</a>
Sir Robert Schomburgk; pub Longman	1847	<i>A Topographical Map of the Island of Barbados: based upon Mayo's original survey in 1721 and corrected to the year 1846.</i>	Reference: Norman B Leventhal Map Center at the Boston Public Library: <a href="http://www.leventhalmap.org/id/19378">www.leventhalmap.org/id/19378</a>
Author/ Publisher	Date	Title	Reference
A. Taylor; published by T. Cross	1859	<i>A Topographical Map of the Island of Barbados, based on a survey taken by W. Mayo, in 1721, corrected and improved to 1859 by A. Taylor</i> <i>A Topographical Map of the Island of Barbados, based on a survey taken by W. Mayo, in 1721, corrected and improved to 1859 by A. Taylor</i> <i>Creator</i>	Reference: British Library: <a href="http://explore.bl.uk/primo_library/libweb/action/display.do?tabs=moreTab&amp;ct=display&amp;fn=search&amp;doc=MBogi140156&amp;indx=6&amp;reclds=MBogi140156&amp;recldxs=5&amp;elementId=5&amp;renderMode=poppedOut&amp;displayMode=full&amp;frbVersion=&amp;dscnt=0&amp;fromLogin=true&amp;tab=website_tab&amp;dstmp=1487963181138&amp;vl(freeText0)=Barbados%20Map&amp;vid=BLVU1&amp;mode=Basic">http://explore.bl.uk/primo_library/libweb/action/display.do?tabs=moreTab&amp;ct=display&amp;fn=search&amp;doc=MBogi140156&amp;indx=6&amp;reclds=MBogi140156&amp;recldxs=5&amp;elementId=5&amp;renderMode=poppedOut&amp;displayMode=full&amp;frbVersion=&amp;dscnt=0&amp;fromLogin=true&amp;tab=website_tab&amp;dstmp=1487963181138&amp;vl(freeText0)=Barbados%20Map&amp;vid=BLVU1&amp;mode=Basic</a>
<i>Speightstown Directory</i>	1898	<i>Speightstown Directory</i>	Reference: Black Rock Archive; Finneran 2013
Direcorate of Overseas Surveys	1960	<i>Barbados 1: 50000 scale map</i>	Reference: University of Texas Libraries Perry-Castaneda Library Map Collection: <a href="http://www.lib.utexas.edu/maps/americas/txu-pclmaps-oclc-25062448-barbados-1960.jpg">http://www.lib.utexas.edu/maps/americas/txu-pclmaps-oclc-25062448-barbados-1960.jpg</a>

Table 8.1. Historic cartographic sources for Speightstown (continued).

## References

- Abdool, A.  
2002 Resident's perceptions of tourism: A comparative study of two Caribbean communities. Unpublished PhD Thesis, Bournemouth University.
- Anon.  
1933 The historic sites and buildings of Barbados. *Journal of the Barbados Museum and Historical Society* 1/1:16-33.  
1935 Extracts from 'The Barbadian' IV: 1824. *Journal of the Barbados Museum and Historical Society* 2/1:32-43.
- Armstrong, D.  
2015 Archaeology of the enslaved laborer settlement at Trents Plantation: 2014-15. *Journal of the Barbados Museum and Historical Society* 61:146-177.
- Beckles, H.  
2006 *A History of Barbados: From Amerindian Settlement to Caribbean Single Market*. Cambridge University Press, Cambridge.
- Bellin, J-N.  
1758 *Description Geographique des Isles Antilles Possédées Par Les Anglois*. Didot, Paris.
- Boado, F.  
2001 Problems, functions and conditions of archaeological knowledge. *Journal of Social Archaeology* 1/1:126-146.
- Bowey, M.  
2012 Commemoration in Barbados: an Archaeology of monumental funerary culture from a parish church. Unpublished MRes dissertation, University of Winchester.
- Bullock, S.  
1998 A Mumper among the gentle: Tom Bell, colonial confidence man. *The William and Mary Quarterly* 55/2:231-258.
- Cadbury, H.  
1942 An account of Barbados 200 Years Ago. *The Journal of the Barbados Museum and Historical Society* 9/2:81-84.
- Cole, P.  
1653 *A Brief Relation of the Beginning and Ending of the Troubles of the Barbados with the True Causes thereof*. Peter Cole, London.
- Cusick, J.  
1995 The importance of the community study approach in historical archaeology, with an example from late colonial St Augustine. *Historical Archaeology* 29:59-83.
- Davis, N.  
1909 Notes on the history of the Jews in Barbados. *Publications of the American Jewish Historical Society* 18:129-148.
- Deagan, K.  
1983 *Spanish St Augustine: The Archaeology of a Colonial Creole Community*. Academic Press, New York.

- 1996 Colonial transformation: Euro-American cultural genesis in the early Spanish-American Colonies. *Journal of Anthropological Research* 52/2:135-160.
- Everill, P., N. Finneran and J. Flatman.  
2015 Editorial: training and teaching in the historic environment. *The Historic Environment* 6/2:93-97.
- Faber, E.  
1998 *Jews, Slaves and the Slave Trade: Setting the Record Straight*. New York University Press, New York.
- Farrar, P.  
1942 The Jews in Barbados. *The Journal of the Barbados Museum and Historical Society* 9/3:130-134.
- Finneran, N.  
2012 Community archaeology at Speightstown, Barbados 2010-2012: retrospect and prospect. *Journal of the Barbados Museum and Historical Society* 58:110-136.  
2013 'This islande is inhabited with all sortes' Creolising the townscape: towards an archaeological biography of Speightstown Barbados. *Antiquaries Journal* 93:319-351.  
2016 Slaves to sailors: the archaeology of Caribbean shore whaling AD1850-2000. *International Journal of Nautical Archaeology* 45/2:388-405.
- Gray, A.  
2016 Ghost Town: heritage tourism and Speightstown, Barbados. Unpublished MA dissertation, University of Winchester.
- Greene, J.  
1987 Colonial South Carolina and the Caribbean connection. *The South Carolina Historical Magazine* 88/4:192-210.
- Gunkel, A. and J. Handler.  
1969 A Swiss medical doctor's description of Barbados in 1661. *The Journal of the Barbados Museum and Historical Society* 33/1:3-13.
- Hamilton, D.  
2006 Pirates and merchants: Port Royal, Jamaica. In *X Marks the Spot: The Archaeology of Piracy*, edited by R. Skowronek and C. Ewen, pp. 13-30. University of Florida Press, Gainesville.
- Handler, J.  
1967 Father Antoine Biet's visit to Barbados in 1654. *Journal of the Barbados Museum and Historical Society* 32:56-76.
- Herman, B.  
1997 The embedded landscapes of the Charleston Single House 1780-1820. In *Perspectives in Vernacular Architecture Vol. 7. Exploring Everyday Landscapes*, edited by A. Adams and S. McMurry, pp. 41-57. University of Tennessee Press, Knoxville.

- Heylin, P.  
1652 *Cosmographie in Four Bookes: Containing the Chorographie and Historie of the Whole World, and all the Principall Kingdomes, Provinces, Seas and Isles Thereof*. Henry Seile, London.
- Higman, B.  
1986 Jamaican coffee plantations 1780-1860: a cartographic analysis. *Journal of Historical Geography* 13/1:17-39.
- Johnson, M.  
1989 Conceptions of agency in archaeological interpretation. *Journal of Anthropological Archaeology* 8/2:189-211.
- Knapp, B. and P. Van Dommelen.  
2008 Past practices: rethinking individuals and agents in archaeology. *Cambridge Archaeological Journal* 18/1:15-34.
- Labat, J. and Eaden, J. (trans.).  
1970 *The Memoires of Père Labat: 1693-1705*. Frank Cass & Co, London.
- Lichtenstein, R.  
2018 The Lost Synagogue of Speightstown: New Findings in the light of Recent Investigations. *Barbados Museum and Historical Society Journal* 64:196-226.
- Ligon, R.  
1657 *A True and Exact History of the Island of Barbados Illustrated with a Mapp of the Island, as Also the Principall Trees and Plants there, set forth in their due Proportions and Shapes, Drawne out by Their Several and Respective Scales*. The Princes Arms, London.
- Mackie, E.  
2005 Welcome the outlaw: pirates, maroons and Caribbean countercultures. *Cultural Critique* 59/1:24-62.
- Monaco, C.  
2009 Port Jews or a people of the Diaspora? A critique of the Port Jew concept. *Jewish Social Studies* 15/2:137-166.
- Ogilby, J.  
1671 *America: Being an Accurate Description of the New World; Containing the Original of the Inhabitants; The Remarkable Voyages Thither; The Conquest of the Vast Empires of Mexico and Peru, their Ancient and Later Wars. With their Several Plantations, Many and Rich Islands, their Cities, Fortresses, Towns, Temples, Mountains, and Rivers; Their Habits, Customs, Manners and Religions, their Peculiar Plants, Beasts, Birds and Serpents*. Thomas Johnson, London.
- Oldmixon, J.  
1708 1741 ed. *The British Empire in America, Containing the History of the Discovery, Settlement, Progress and Present State of all the British Colonies on the Continent and Islands of America: With Curious Maps done from the Newest Surveys (Vol. 2)*. James Brotherton, London.

- Parker, M.  
2011 *The Sugar Barons*. Windmill, London.
- Poyer, J.  
1808 *The History of Barbados from the Discovery of the Island in the Year 1605 till the Accession of Lord Seaforth 1801*. J. G. Banard, London.
- Samuel, W.  
1924 *A Review of the Jewish Colonists in Barbados in the Year 1680*. Paper read before the Jewish Historical Society of England May 19th 1924. Jewish Historical Society of England, London.
- Schomburgk, R.  
1848 *The History of Barbados: Comprising A Geographical and Statistical Description of the Island; A Sketch of the Historical Events since the Settlement and an Account of its Geology and Natural Productions*. Longman, London.
- Sloane MS 2441.  
1684 *An Account of His Majesty's Island of Barbados and the Government thereof*. British Library, London.
- Sloane MS 2302.  
1710 *Thomas Walduck's letters from Barbados, 1710*. British Library, London.
- Smith, F.  
2004 Holetown: archaeological investigations at the site of the first British settlement in Barbados. *Journal of the Barbados Museum and Historical Society* 50:49-65.
- Smith, F. and H. Bassett.  
2016 The role of caves and gullies in escape, mobility and the creation of community networks among enslaved peoples of Barbados. In *Archaeologies of Slavery and Freedom in the Caribbean: Exploring the Spaces In Between*, edited by L. Bates, J. Chenoweth and J. Delle, pp. 31-48. University of Florida Press, Gainesville.
- Smith, F. and K. Watson.  
2009 Urbanity, sociability and commercial exchange in the Barbados sugar trade: a comparative colonial archaeological perspective on Bridgetown, Barbados in the seventeenth century. *International Journal of Historical Archaeology* 13/1:63-79.
- Southey, T.  
1827 *Chronological History of the West Indies (Vol II)*. Longman, London.
- Stern, M.  
1993 Portuguese Sephardim in the Americas. In *Sephardim in the Americas*, edited by M. Cohen and A. Peck, pp. 141-178. University of Alabama Press, Tuscaloosa.
- Stiefel, B.  
2016 *Jews and the Renaissance of Synagogue Architecture*. Routledge, Abingdon.



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# Watch Towers: Surveillance and Control in the Aftermath of the 1816 Barbadian Slave Revolt

*Alan D. Armstrong*

## **Abstract**

Using a landscape approach supported by GIS mapping techniques, this chapter explores how planters sought to improve surveillance and control of the enslaved population following a rebellion that took place on the island in 1816. The network of watch towers constructed in the wake of the 1816 rebellion highlights planter responses to unrest and ideologies of surveillance related to Jeremy Bentham's late-eighteenth-century conceptualization of the panopticon. This multi-scalar, GIS-based analysis of viewsheds demonstrates how these architectural features, which came to serve many purposes in the past and present, have their roots in the harsh and controlling system of sugar and slavery that dominated the island landscape for several centuries.

**Keywords:** *Slavery, surveillance, watch towers, landscape, 1816 rebellion.*

## **Introduction**

A series of watch towers in Barbados project panoptic surveillance and an effort to regain control and soothe nerves among the planter and merchant classes in Barbados in the aftermath of the 1816 slave rebellion (Bentham 1791; Beckles 2006; Armstrong A. 2013). Today, travelers to Barbados are encouraged to visit the historic signal station at Gun Hill, a beautifully restored site that provides a panoramic view of the island (Figure 9.1). Visitors encounter manicured gardens and descriptions of how the towers were used to signal the arrival of ships to protect the island from outside attacks and to inform merchants of approaching cargo vessels. In the post-emancipation era the towers were also used to convey, and control time, through the display of 'time ball' flags that signaled the beginning and end of the work and school day. Flags were also raised at the towers to convey information on legislative meetings



Figure 9.1. Gun Hill, St. George, ridge top walkway to restored signal station (Alan Armstrong).

to members of the Assembly. However, these tourist and administrative uses deflect attention from the primary purpose of this network of six signal stations that were constructed between 1817 and 1819 in the wake of the Bussa slave rebellion of April 1816.<sup>1</sup> The towers were placed on high points distributed across the island to create a web of surveillance with the express purpose of providing protective warning against gatherings of slaves, fires, and other signs of potential rebellion. Positioned to monitor the landscapes, they were designed to insure panoptic control in the aftermath of the rebellion (Figures 9.2 and 9.3).<sup>2</sup>

The study uses a multi-scalar approach to GIS data analysis to address a series of questions concerning surveillance and control. I examined the viewshed of each tower individually as well as the cumulative viewshed of the network of six towers (Highgate, Gun Hill, Moncrieffe, Cotton Tower, Grenade Hall, and Dover Fort; (Figure 9.2) and their associated control points, or communication hubs, at Barbados' military center at St. Ann's Garrison, in Bridgetown and a later tower at Commercial Hall, in Bridgetown. Spatial data on surveillance was examined across the island with the percentage of area visible from the towers compared for each of the eleven administrative parishes of the island. The study involved gathering spatial data from each signal

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1 The rebellion was documented in *Report on the Slave Insurrection in Barbados* (BMHS 1976; see also Beckles (2006: 8-80).

2 The study is part of a much broader study of surveillance and control associated with the network of watch towers (Armstrong A. 2013).

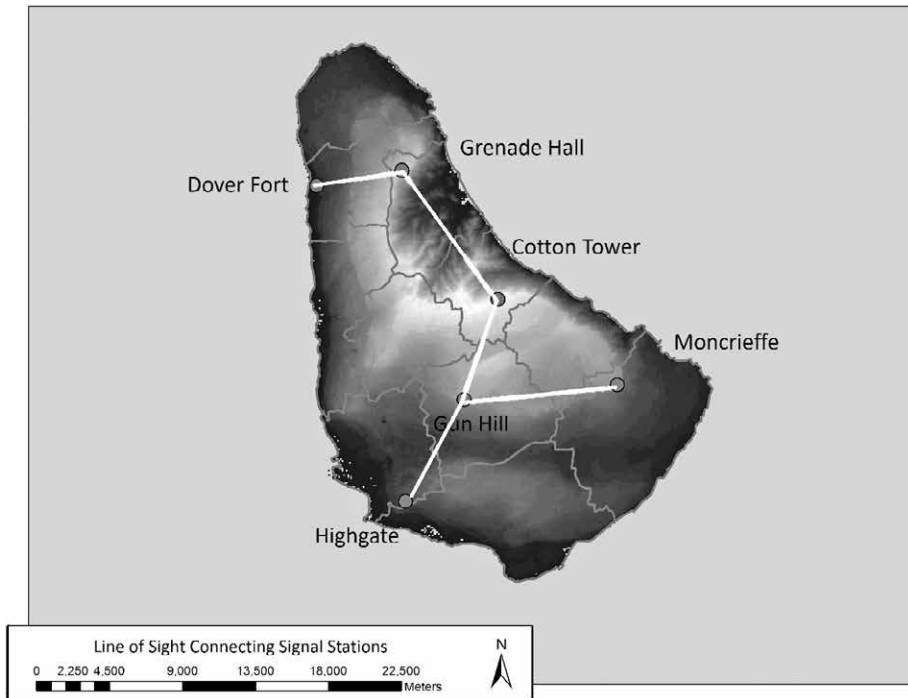


Figure 9.2. Line of sight connecting signal towers.

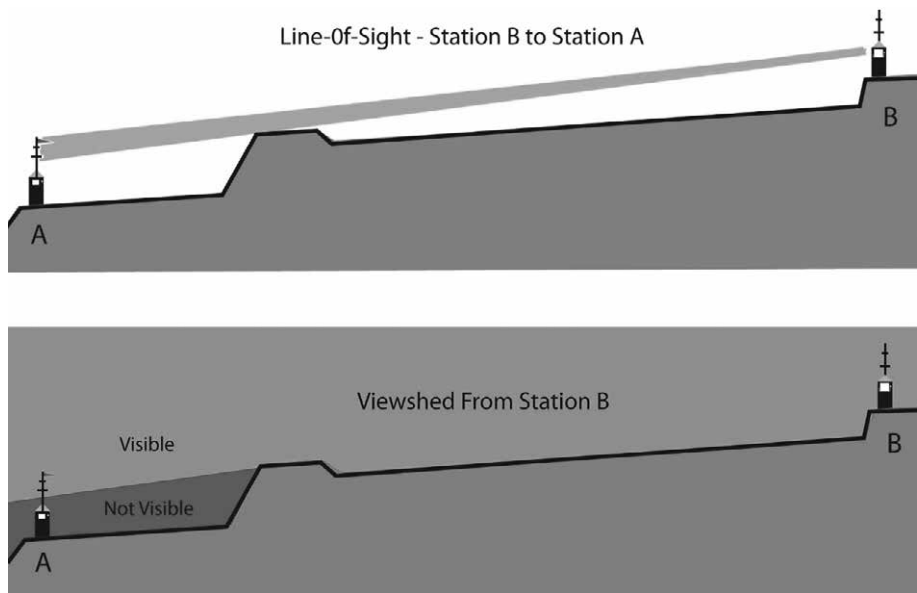


Figure 9.3. Schematic representation of line-of-sight (tower-to-tower) and viewshed visibility from a single tower (B). Topography prevents visibility of a portion of the landscape.

station and generating a GIS base map using information from topographic maps and NASA satellite imagery (NASA 2005). These data were then compiled and analyzed using ArcGIS to reconstruct and interpret Barbados' historic landscape and viewsheds.

By examining the viewsheds created by the signal stations, this study: 1. Tests and confirms the well documented purpose of the towers as a network linking together an island wide line-of-sight viewshed. 2. Assesses the extent of the viewshed from each tower. 3. Assesses the cumulative viewshed of the series of towers (Wheatley 1995). 4. Assesses areas and points that were not visible, and explores why the towers were not designed to include all points in their panopticon design. 5. Finally, it examines changing uses and perspectives on the towers in the post-emancipation era and finally the shift in their current role as tourist vistas with a historical component.

A key aspect of this project is to provide data to assess the initial primary role of the towers as points of critical surveillance aimed at control over the laboring population (see Foucault 1977; Bentham 1791). Accounts, including records of legislative acts (BDA-PA 1816 f.16), provide explicit detail on the objective of building the 'watch towers' to insure security against possible resistance and rebellion among enslaved laborers (Beckles 2006; Benmoyal *et al.* 1992).

### **Theoretical Approach: Multi-scalar Surveillance through the Panopticon**

The panopticon model of control through observation, as defined by Bentham (1791), relates to the idea that points of surveillance could be designed and constructed to control and modify behavior in penitentiaries and other institutions like lazarettos (maritime quarantine stations and leper colonies), poor houses, hospitals, and schools. Foucault (1977) drew upon Bentham's model and re-popularized the notion of control and behavior modification through structured surveillances using examples of penitentiaries that were designed to include points of specific surveillance. Archaeologists have found elements of Bentham's and Foucault's panopticon models to illuminate the role of surveillance and control (Leone and Potter 1988).

To date, most studies examining visual control over space have focused on spatial analysis of either single plantations (Bates 2007) or a series of plantations discussed individually (Epperson 1999, 2000). Dell Upton (1988) applied the panopticon model to Virginia's plantation landscapes to explain the spatial dynamics of power asserted through visual control by the positioning of structures. At about the same time archaeologists Mark Leone and Parker Potter applied the model to the study of power relations of complex urban sites in Annapolis Maryland (Leone and Potter 1988). Leone's studies of the landscape of Annapolis, Maryland, including an investigation of William Paca's garden (2005: 63) and the Maryland State House (Leone 2005: 87-93; see also Shackel 1994), project built environments that convey power and authority (2005: 63-110). In his study of the Maryland State House, and the construction of its dome in 1780, Leone explores the underlying authority and control implied by its position (Leone 2005: 92-94). Leone argues that placement of the dome correlates with Jeremy Bentham's ideas of behavioral reform through spatial control aimed at modifying behavior (Leone 2005: 96; see Bentham 1791). Bentham's model predicts that those being watched, 'as from a perch or lectern' would respond by watching

themselves and therefore would be less likely to engage in civil misbehavior. In Leone's panoptic case studies in Annapolis, Maryland, the groups of people engaging in this visual discourse are assumed to share an understanding of their 'possessive individualism' (Leone 2005: 35).

The panopticon model applies well to both the study of Barbadian signal stations and to the broader Barbadian plantation landscape. The intent of the signal stations, as indicated in the legislative acts associated with their construction, was to set up a network of towers aimed at imposing and retaining control through surveillance from a series of elevated viewpoints which together formed a networked viewshed covering much of the island. The network provided a means of rapid communication and a mechanism for rapid response by the military to social unrest. The objective included not only creating a network of panoptic surveillance, but of creating an environment where people know they were being watched, in order to modify their behavior and discourage rebellion.

In Barbados, those who had led the 1816 rebellion were almost entirely from the skilled classes: tradespersons, drivers, and rangers; some of whom were educated and had access to and knowledge of the dealings of planters and Barbados governance. This group understood that the institution of slavery was under debate, and had a vested stake in the abolition side of those arguments (see Beckles 1990: 82-83). The disappointment that no action was taken on 'freeing' them shows that they were watching and monitoring the affairs of Barbadian governance. In the aftermath of the rebellion, colonial authorities sought ways to reassert their position of control and ease fears of future challenges to their authority (BDA-PA 1817 XX; Schomburgk 1848: 195). It is probable that while projecting surveillance of the broader plantation landscape, the authority represented by these towers was directed towards the leadership among the enslaved who were most likely to understand the implied power of the towers (Bentham 1791; Foucault 1977; Leone 2005: 35, 96). However, at a broader level, the construction of the towers could be seen across the island and laborers were informed that they were being watched.

Lisa Randle used GIS to examine and reconstruct viewsheds on individual plantations and on a regional basis in South Carolina (2011). Randle (2011) states:

*'The conscious decision-making on the part of planters to maximize profits, exercise surveillance and reinforce the subordinate status of enslaved people resulted in a 'geography of power.'*

In Barbados, as in much of the Caribbean, the landscape was dominated by plantations designed to maximize economic production while maintaining control over large numbers of enslaved laborers (Beckles 2006; Dunn 1972; Williams 2005 [1944]). The encompassing nature of the plantation economy is well defined in historical accounts of Barbados (Campbell 1993; Harlow 1926; Schomburgk 1848).

In the Caribbean viewshed and viewshed analyses have been used to assess and confirm the spatial dynamics of surveillance and control on Caribbean plantations (Armstrong D. *et al.* 2008; Armstrong D. and Kelly 2000; Bates 2007; Cherry *et al.* 2012; Davis 2013; Delle 1998, 2002; Singleton 2001: 105). James Delle's (2002) study of several coffee plantations in Jamaica is perhaps closest to the focus of the

present study. Delle explores the viewshed of a group of estates from two perspectives. First, he examines the viewshed of seven mansion houses and demonstrates how their spatial positions were used to reinforce control via surveillance. He also notes that like Barbados' signal stations, the houses were positioned to view and communicate with one another. Within each estate the great house was strategically placed to 'encompass the location of at least two other great houses' (Delle 2002: 350). Hence, surveillance was already a feature of the localized plantation landscape. The creation of the network of Watch Towers, simply amplified this pattern of surveillance on a broader island-wide panoptic level.

### **Consideration of the Impact of the 1816 'Bussa' Rebellion**

Before 1816, no serious threat of a revolt had occurred in Barbados since 1692 (Handler and Lange 1978: 81). However, there was a growing unrest. Laborers yearned for freedom and the enslaved aware of abolitionist efforts in England were becoming disillusioned by the protracted process (Beckles 2004a: 23). On 14 November 1815 the Speaker of the Barbados General Assembly informed his members that a bill had been introduced in the House of Commons for registering slaves (Schomburgk 1848: 394). Issues of abolition and legislation to enable blacks to represent themselves in court were on the minds of Barbadians going into 1816, however no action on either were taken when the Assembly took its Easter recess. Unrest followed; on the evening of Easter Sunday, 14 April 1816, the enslaved laborers of Barbados initiated an organized, revolt.<sup>3</sup> The revolt began at the south end of the island at Bayleys Plantation in St. Philip and quickly spread to six of the island's eleven parishes (Beckles 2004b; BMHS 1976; Handler and Hughes 2001: 268; Schomburgk 1848: 295).

The rebellion continued for three days before being put down by the island militia.<sup>4</sup> In total 182 planters filed claims covering damage (BMHS 1976: 58-63). More than 1000 enslaved laborers, two soldiers, and one militiaman were killed (Beckles 2004a: 24), and another 124 enslaved laborers were incarcerated and later shipped to Honduras and then on to Sierra Leone (Handler and Hughes 2001: 268).<sup>5</sup> April was a dry month and cane fires were easily set and spread rapidly, resulting in about a 25% loss of the cane crop (BMHS 1976). While the rebellion was suppressed rather quickly with little loss of life among the white elite, the event shook the island's elite and resulted in fear among the island's planters, business community and militia (Beckles 2004b). This event strengthened the resolve of abolitionists in the English Parliament, while the governing bodies of Barbados took action aimed at controlling the enslaved population and insuring security for its still lucrative cash crop.

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3 Beckles (2004a: 24) attributes the degree of island-wide organization to knowledge of the Haitian revolution, and Schomburgk notes that it was a reaction to a lack of action by the Assembly (1848: 395).

4 The militia included troops from the First West India Regiment made up of black soldiers (Handler and Hughes 2001: 268).

5 Handler and Hughes (2001: 268) report that approximately 250 died.

## Signal Stations in Barbados

Signal stations have a long history across the globe and have been associated with strategic defense, communication, surveillance, and control. Lord Combermere arrived as the new governor of Barbados in June of 1817, bringing military experience, including involvement with British tower fortifications in Ireland during the Napoleonic wars (Kerrigan 1995; O'Sullivan and Downey 2012; University College Cork Archaeology 2013). He quickly devised a plan to construct a series of towers to quell possible rebellion (Schomburgk 1848: 195). The Barbadian signal stations were designed explicitly for surveillance and control (BDA-PA 1816 f.16, 1818 f. 11, 1819, 1829). The towers were to enable any sign of unrest to be addressed quickly by having observers send signals to generate a rapid response from the militia at St. Ann's Garrison. The garrison housed a standing militia and already had a watch tower (St. Ann's Tower) to monitor naval activities at Carlisle Bay and the Garrison as well as a signally link to a tower at Queen's House. The tower within the garrison is still standing and serves as the primary surveying bench mark for the island, defined as 'M1' (Figure 2). Military camps were already present at Gun Hill and Moncrieffe, and troops remained attached to barracks adjacent to the new towers constructed there. The island-wide network was made complete by four other towers that were built and manned by small attachments of two 'artillerymen' (Schomburgk 1848: 195).

After emancipation, the role of the towers shifted from panoptic surveillance aimed at control of labor, to roles that focused on commerce, trade, time management, and finally tourism. In 1848, Robert Schomburgk referred to the towers as points of communication:

*'By means of these effective stations communications are conveyed by signals all over the island, as well for military purposes and alarms, as for summoning of her Majesty's Council, commercial intelligence, etc.'* Schomburgk 1848: 195)

Increasingly, the signal stations served to communicate the approach of merchant ships to commercial interests in Speightstown and Bridgetown. The arrival of the telephone in 1883 made these 'optical telegraphs' obsolete; though several of the stations were leased out to private holders under terms that they continue signaling 'Time Balls' and make the sites available in case of emergencies. However, within a decade the system had ceased operation, and the structures started to deteriorate (BNT 2013-Cotton Tower).

The current interpretation of the towers as tourist vista points began even as the towers fell into disrepair. They gained renewed interest among tourists and travelers visiting the island in the late-nineteenth century. Cotton Tower is mentioned for its view in Starke's travel guide (1893). With the advent of automobile travel in the early twentieth century the signal stations began to appear as tourist destinations because of the views afforded at these locations (Aspinall 1907, 1914). Aspinall describes Cotton Tower as having a fine view (1914: 104), and notes the 'sweeping view' of the Scotland district from Grenade Hall (1914: 123). However, by the 1950s most were in ruins. In 1971, when Edward Stoute went out in search for them, he found most in ruins and he could not find Grenade Hall in the thick brush (BDA-S 1971a-c). Beginning in the late 1970s the sites were systematically restored by the Barbados National Trust and private parties (BNT 1983; Benmoyal *et al.* 1992).

## Spatial Positioning, Design, and Signaling

In terms of basic design and construction the signal stations, are a series of two to three story towers with tall flagpoles, or masts. Line of sight communication between towers was done with signaling flags that could be viewed through small square openings in the walls of each structure that were aimed at each of the neighboring stations (Figure 9.3). Small telescopes were placed in the holes to assist in reading the flags of the neighboring stations. The three remaining stations at Gun Hill, Cotton Tower, and Grenade Hall all have such port-holes. Gun Hill has three, directed towards each of the towers to which it was directly linked. Cotton Tower and Grenade Hall each have two. The reconstructed tower at Grenade Hall today has telescopes in each of the communication port-holes. Some records in Barbados refer to signaling as being a form of telegraph, this probably relates to the use of the term 'optical telegraph' to describe the conveyance of line-of-sight communication from signal tower to signal tower. The phrase 'optical telegraph' was used for similar towers of the same period in Ireland (University College Cork Archaeology 2013).

Signaling was done by sending specific colored and designed flags up and down the flag poles. The records of signals that do survive convey a series of naval and commercial information. For example, the Barbados Pocket Guide (Yearwood 1938) published a list of signals and flags used at the signal tower at Highgate. The publication of the Highgate flagging codes relates primarily to conveyance information on shipping that was useful to those engaged in maritime industries in Bridgetown and offshore in Carlisle Bay, the primary shipping port of the island. This suggests that commerce had already usurped the role of defense.

## Archaeological studies of Viewsheds using GIS in Barbados

The landscape and viewshed analyses used here fall within a grouping that James Conolly defines as 'cellular models' (2008: 589); which include studies of environment, movement and visibility. Viewshed analysis is defined as:

*'the calculations of the potentially visible area from a defined spot on an elevation model, given a specific height of an observer and target'* (Conolly 2008: 589).

Viewsheds are derived from line-of-sight (LOS) calculations, with the calculation repeated for every potential target within a defined radius (see Conolly 2008: 590). The computer modeling of ArcGIS uses these data to generate maps which identify the visibility area.

The viewshed analyses presented here were assisted by compilation of data using ArcGIS 10.1. The data were generated using a complex array of tools including two GPS data collectors, NASA maps, government topographic maps, and privately operated, GPS fixed stations. Renee' Babb and Craig Batstone of GeoOrbis GIS Consulting, of St. James, Barbados, lent me a Trimble Geo6000 GPS unit with loaded locational software calibrated to an extant private data collection system and GPS network. Moreover, Gregory Hutchinson of Hart, Hutchinson and Field, Land Surveyors, St. James, Barbados, allowed me to tie into the privately-operated fixed station GPS system operated by his company. In addition, they gave me the fixed standard point



data for survey markers across the island, which include two of the signal stations being examined. In addition, I gathered data points for plantation sites on a second Syracuse University owned MobileMapper 120 (Ashtech) hand held GPS device with ArcGIS ArcPad 10.0 loaded. My field laptop had ArcGIS 10.1 allowing me to download and update GPS points and maps in the field. Field photographs were taken by me and field crew members using Nikon and Panasonic cameras as well as the GPS units. Through the combined use of these equipment and resources I was able to generate GPS data for all sites and to calibrate the GPS data gathered on a NASA produced map that includes Barbados (NASA2005).

### **Single and Cumulative Viewsheds**

A single viewshed displays what can be seen from one observer point on the landscape (Figure 9.3). The main use of single viewsheds in this project is to compare the difference in visibility between signal stations as well as to isolate where specific towers have vision, or the locations where a specific tower could be observed from. A multiple site viewshed often requires visibility from multiple observer points. For the purposes of this project a cumulative method was used alongside the single viewshed combining sets of viewsheds from each individual tower to show where there was visibility of any signal tower. The goal of using a cumulative viewshed for all the towers is to gather and display spatial data regarding the total area of different designated zones (mainly parishes) that had visibility of the towers (see Wheatley 1995). Percentages of these zones could then be calculated to compare tower visibility between the eleven parishes. The cumulative viewshed for the signal stations are used to effectively illustrate which spaces on the island were visible from the tower and visa-versa. I used parish divisions as the basis of my geographic zones.

To calculate the height of the tower and the mast above it one needs data on the height of the structures as well as the signaling mast. I defined the elevation of each tower by comparing data listed on Schomburgk's (1846) map of Barbados, along with GPS data points. A historic photograph of Gun Hill Tower shows the mast of a semaphore signaling setup. The mast is many times higher than the 3-story tower and very different from the modern flagpole currently on the tower (Armstrong A. 2013). The Gun Hill mast extends at least 20 meters above the tower and I have chosen this conservative estimate in calculating the height of the signaling apparatus. A detailed illustration of Highgate tower was included in the 1838 Barbados Pocket Guide year-book (Yearwood 1838). The illustration in the guide shows what appears to be a lower mast than what is seen in the photograph of Gun Hill. I estimated the height of the Highgate mast at 15 meters above the tower (again a conservative estimate). There is one account that puts the height of this mast at 53 feet, or about 17.5 meters. (BNT 2013). GPS data points were collected from the base, and if available from the third floor of each tower. Compared with the known heights and the GPS point elevations the DTM was usually within five meters.

The six signal stations are Gun Hill (St. George), Montcreiffe (St. Phillips), Highgate (St. Michael), Cotton (St. Joseph), Grenade Hall (St. Lucy), and Dover Fort (St. Peter). These stations were designed to relay information to the stone tower at St. Ann's Garrison. Critical signals could then be relayed to military and government

officials through Queens House Tower (the ruins of which are now on Queen's College property). Beginning in the 1830s, signals began to be sent directly to maritime merchants Commercial Hall in Bridgetown. The location and line of sight map for the watch towers is presented in Figure 9.2. This also shows the pattern of line of sight visual communication throughout the network. This confirmation is not a surprise given the clear documentation of the use of the towers as a communication network. Moreover, view portals were built into the walls to help the guards focus on the messages being sent from neighboring towers.

The towers were not only designed to communicate with one another, but at least initially, they had the primary objective of monitoring the surrounding country side. From the top of each tower the militiamen could look out from windows on all four or five sides and a balcony on at least one side of the top floor of the tower. To be seen, a point must be directly visible from the tower. Viewsheds were calculated and compiled in both tables and maps (Armstrong A. 2013; Tables 9.1-9.3).

Data for each of the six signal stations was generated to provide a quick, and visual, means of assessing the view from each tower. Gun Hill (Figure 9.2) is the only tower linking as many as three towers in the network (southwest, east, and north). This tower was also strategically placed above a broad area of plantations that were significant to the island's economy. Gun Hill's, also provides a wide panorama of the ocean, including more than 200°s of viewshed. Moncrieffe signal station has a degree of viewshed overlap with Gun Hill, particularly in the areas of rich agricultural lands in St. George and St. Philip parishes. Highgate tower links St. Ann's Garrison to Gun Hill. While this tower is much lower its positioning provides amazing coverage of areas that are hidden from view at Gun Hill; including the coastal margins of Christ Church the coastal plain of St. Michael, and virtually all of the important port town of Bridgetown. Cotton Tower's coverage includes an overlap, including line of sight communication between Grenade Hall and Gun Hill and the points in between. Grenade Hall is the northern most tower and provides visual coverage of much of the parish of St. Lucy, and line of site visual contact with Dover Fort and the north west coastal town of Speightstown.

The objective of the watch towers when they were constructed was panoptic surveillance of the island, or more specifically the laborers and valuable plantation lands. The data were compiled for the whole island and by parish. Parishes are a useful basis of comparison as population and economic records for the island were recorded at the parish level (Higman 1984; Tables 9.1-9.3). In terms of the number of enslaved laborers engaged in agricultural production, the demographic data show the prominence of St. Philip, Christ Church, St. George, St. John, St. Thomas and St. Michael. These were also the parishes that were most impacted by the 1816 revolt, hence, one of the statistics that I wanted to evaluate was the percentage of cumulative viewshed coverage provided for each of these parishes.

Cumulative viewsheds were mapped using statistics that were measured from the height of the observation deck at the towers as well as the area from which a signal tower's mast was visible (Figure 9.4). Overall, the cumulative viewshed model showed that 58.67% of the island had visibility coverage of at least one of the signal stations with an average of 56.91% of each parish having visibility (Tables 9.1-9.3). This visibility coverage was not evenly distributed between the parishes. St. Michael's Parish had the highest percent coverage at 84.42% and much of this comes from the viewshed

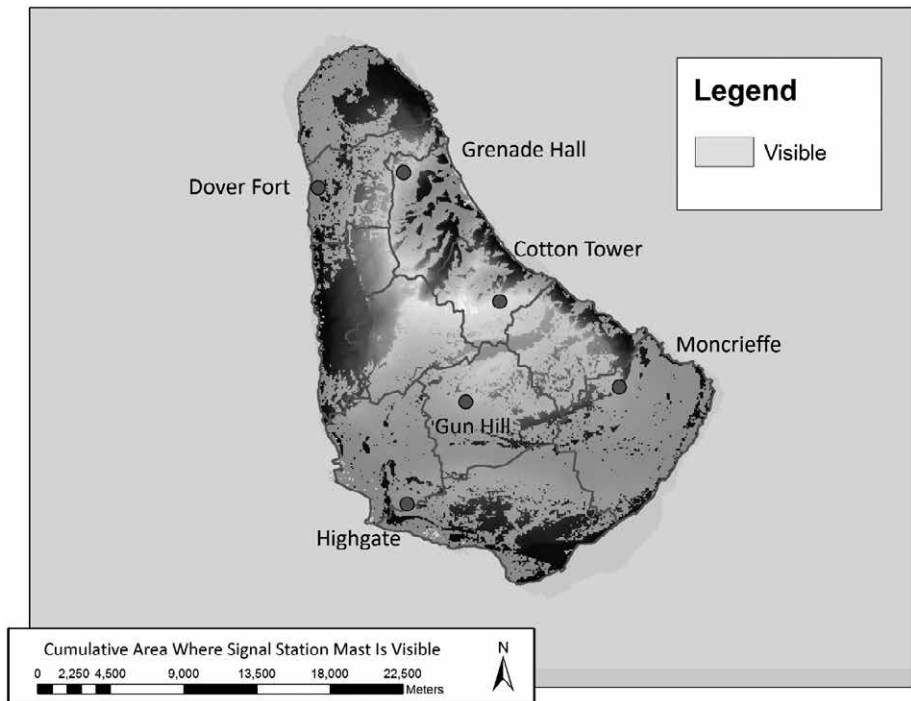


Figure 9.4. Cumulative area where signal station mast is visible. Shows area that can see the signals on the mast of at least one signal station.

of Highgate, which had a great coastal view of the parish as well as from the vision of Gun Hill and surprisingly, even Cotton Tower. St. Philip and St. George followed as the next highest percent coverage at 78.17% and 75.58% respectively. St. Philip and St. George, both of which were dramatically impacted by the rebellion, both have high proportions of their lands visible from the network of towers. Tables 1-2 are shaded to show the parishes that sustained damage in the rebellion and this group make up most of the parishes with the highest areas visible from (and to) the towers.

The areas that were not as visible from the towers include those along the west coast. These areas were not in the area impacted by the rebellion and may have been at least partially covered by a residual network of dozens of coastal and hill forts. In fact, Dover Fort was built as part of the network of west coast forts and was reconstructed as a signal tower. St. James on the west coast, had the least viewshed coverage by the network of signal stations. However, plantations in this area may have had some degree of coverage from a series of older, coastal forts. Other areas of minimal coverage included sparsely populated areas of St. Andrew and St. Joseph (Tables 9.1-9.3). These parishes include the steep and irregular topography of the Scotland District. The combination of irregular topography and relatively smaller populations probably contributed to these parishes having a higher proportion of lands that were not visible from the towers.

The cumulative viewshed of the ocean surrounding the island includes 360-degree coverage. Closer in at the shoreline, all but small areas of cliff faced shoreline on the north and south ends of the island. From a military perspective, the key to preparations and defense was being able spot potential foes as they approached on the horizon, for

Parish	Laborers in Sugar Cultivation	Percent by Parish
St. Philip	6022	14.70%
Christ Church	5359	13.08%
St. George	5159	12.59%
St. John	4175	10.19%
St. Thomas	3287	8.02%
St. Michael	3117	7.61%
St. Lucy	3056	7.46%
St. Peter	2939	7.17%
St. Andrew	2894	7.07%
St. Joseph	2633	6.43%
St. James	2321	5.67%
	40962	

*Table 9.1. Demography of enslaved laborers engaged in sugar production in Barbados in 1834. Note that the six parishes with the highest ratio of sugar workers were all impacted by the 1816 rebellion (shaded). Based on data compiled by Higman (1984:698, Table S11.1).*

Area with View of Signal Station Mast by Parish					
PARISH	Area (square meters)			Percentage	
	Total Area	No Visibility	Visibility	Visibility	No Visibility
St Michael	38338845.73	5971937	32366909	84.42%	15.58%
St Philip	60785430.48	13266583	47518847	78.17%	21.83%
St George	45070846.96	11006131	34064716	75.58%	24.42%
St Andrew	32781489.87	12358454	20423036	62.30%	37.70%
St Joseph	26691101.66	10364518	16326584	61.17%	38.83%
Christ Church	60864398.24	27312973	33551425	55.12%	44.88%
St Peter	31290973.47	14076003	17214971	55.02%	44.98%
St Thomas	34044973.97	17530842	16514132	48.51%	51.49%
St John	34903748.32	18103358	16800390	48.13%	51.87%
St Lucy	35219619.35	19218778	16000842	45.43%	54.57%
St James	34637232.15	30412457	4224775	12.20%	87.80%
Totals	434628660.2	179622034	255006627	58.67%	41.33%
Average	72438110.03	29937005	42501105	56.91%	43.09%

*Table 9.2. Area with view of signal station mast by parish (parishes with damage during revolt shaded).*

this the entire horizon was covered. Also, the data show visibility in relation to surface areas. Areas behind hills or over the edge of cliffs show up as 'not visible', unless seen from another vantage point (a second tower). However, the towers would have been able to monitor the immediate results of some activities or events indirectly by looking at the sky. For instance, during the 1816 slave rebellion, a significant amount of the damage done to plantations was caused by fires. Rising smoke would have been easily visible even if the surface were not. The 1816 report and claims filed for damages cite destruction of 25% of the cane fields for the whole island with damage to estates in seven parishes, with the most damage done in St. George and St. Philip (BMHS 1976). Hence, the effective cumulative viewshed was greater than the statistically measured

Site: Plantation	Village	Works	Mill	Mansion House	Woods and Rivers	Cemetery (enslaved laborers)	Militia
Trents, St. James	0	0	0	0	0		
Drax Hall, St. George	1	1	1	1	1		1
Codrington, St. John	0	0	0	0			
Society, St. John		1	1	1			
Colleton, St. Lucy / St. Peter	1			1			
St. Nicholas Abbey, St. Peter	1	0	0	0			
Morgan Lewis, St. Andrew		1	1				
Mount Gay, St. Lucy		1	1	1			
Newton, Christ Church		1				0	
Bayleys, St. Philip		1		1			

Table 9.3. Visibility of key areas of plantations visible from at least one signal station (1) or not visible (0) (areas without data are left blank).

and mapped cumulative viewshed. Just as the horizon had 360° of coverage, the land had an effective coverage nearing the whole of the island.

## Conclusions

GIS mapping of the watch tower viewsheds confirm, line of sight visual links between the six stations that were constructed to provide panoptic surveillance of the island's plantation landscape. These signal stations were constructed in the aftermath of the 1816 revolt for the express purpose of providing surveillance and to insure control over enslaved laborers. The data demonstrates the effective design and placement of the towers to create sweeping vistas of control. They were purposely positioned in locations that provided both panoptic viewscales and rapid line-of-sight visual 'telegraphic' communication spanning the island from six high points spread across the island. They were also located to maximize the viewshed of each tower and the collective, cumulative, viewshed of the entire island.

The findings demonstrate that the positioning of the signal stations provided line of sight visibility and a cumulative viewshed of sweeping panoptic surveillance. The stations thus achieved the goal of creating a network from which plantations and laborers were vigilantly watched. It is more difficult to gauge the impact of the towers on the decision making of the enslaved. However, no further rebellions took place, so from a managerial and control perspective the towers appear to have achieved their initial goal. With emancipation, the formal role as 'watch towers' monitoring and controlling the laboring population, declined in significance. Still, the towers retained their position and could relay signals to insure a rapid response if problems emerged on the plantations. It was only when telephones and telephone lines became available in the 1880s that the tower's lost their social and economic significance, replacing the indirect 'optical telegraphy' sent relatively slowly by messages from signal mast to signal mast.

This study provides a solid baseline for the study of surveillance. Like Bentham's (1791) model of sentries overlooking the cells and yards of a penitentiary, the objectives of observation and control in Barbados were well defined. The signal stations were well engineered and positioned to maximize viewsheds from each of the six sites and to complement one another to produce a comprehensive cumulative viewshed in which the primary economic lands and laborers of the island were visually monitored.

## Acknowledgements

I would like to thank the generous support of my advisors in the M.A. program in Landscape Archaeology in the Department of Archaeology at Sheffield University: Professors Bob Johnston, Colin Merrony, and Gianna Ayala. The GPS survey was greatly assisted by technical support and equipment made available by Renee Babb, GIS and RS Coordinator, and Craig Batstone, Managing Director, of Geo Orbis, GIS Consulting. Gregory Hutchinson, Land Surveyor, Hart, Hutchinson and Field, Inc., provided access to data from a fixed GPS station. In Barbados, I was assisted by many people and institutions. Dr. Karl Watson and the Barbados National Trust assisted with historical background data for Gun Hill and Cotton Tower, both of which they restored and continue to manage. The Barbados Museum and Historical Society granted permission to photograph museum maps. Philip Whitehead, Drax Hall Plantation Manager, gave permission to collect GPS data points at Drax Hall. The Special Collections Department, West Indies Archive, University of the West Indies, Cave Hill, provided critical manuscript sources that were used in this study.

## References

- Armstrong, A.  
2013 Watch Towers and Plantations: archaeological examination of surveillance and control in Barbados using GIS and GPS. MA Dissertation, Landscape Archaeology, The University of Sheffield.
- Armstrong, D., Hauser, M., Knight, D. and S. Lenik.  
2008 Maps, matricials, and material remains: archaeology of late eighteenth century. In *Archaeology and Geoinformatics: Case Studies from the Caribbean*, edited by B. Reid, pp. 99-126. University of Alabama Press, Tuscaloosa.
- Armstrong, D. and K. Kelly.  
2000 Settlement patterns and the origins of African Jamaican society: Seville Plantation, St. Ann's Bay, Jamaica. *Ethnohistory* 47/2: 51-63.
- Armstrong, D., Watson, K. and M. Reilly.  
2012 The 1646 Hapcott Map, Fort (Trent) Plantation, St. James, Barbados: A significant resource for research on early colonial settlement in Barbados. *Journal of the Barbados Museum and Historical Society* 58: 95-115.
- Aspinall, A.  
1907 *The Pocket Guide to the West Indies*. Edward Sanford. Publisher, London.  
1914 *The Pocket Guide to the West Indies*. Rand McNally and Company, New York.

Barbados Department of Archives (BDA).

- 1816 An Act to grant a sum of money out of the Public Treasury of this island to defray the expenses of erecting Barracks at Gun Hill and Moncrieffe and repairing those at Speightstown and the Holetown. Public Acts, Legislative Council, 17 December. Public Acts 1800-1829, 1816 Folio 16, BDA.
- 1817 An Act for more fully ascertaining the slave population of Barbados. Public Acts, Legislative Council, 9 January 1817. Public Acts 1800-1829 Folio, no number, BDA.
- 1818 Act to purchase 19 acres adjacent to land of Gun Hill from Thomas Edgehill. Public Acts, Legislative Council 6 May 1818. Public Acts 1800-1819, Folio 63, BDA.
- 1819 Act to grant a sum of money out of the public treasury of the island to defray expenses of erecting additional signal posts within the same and repairing the barracks at Gun Hill and making some improvements to the signal posts there as also to those at Moncrieffe Point. Public Acts, Legislative Council 3 March 1819. Public Acts 1800-1829, 1819 Folio no number, BDA.
- 1829 Act to authorize payment of a certain sum of money to Thomas Harris the balance of his accounts for the repair of Dover Fort. Public Acts, Legislative Council 14 November 1829. Public Acts 1800-1829, 1819 Folio no number, BDA.

Barbados Department of Archives – Stoute (BDA-S).

Stoute Scrapbook, Barbados Department of Archives (BDA-S) 1971. Stoute, Edward A. Scrapbook Vol. II: A collection of articles from 'Glimpse of Old Barbados' in *Sunday Advocate-News*, Bridgetown.

- 1971a Fine View from Cotton Tower. *Sunday Advocate-News*, Bridgetown 10 January 1971.
- 1971b Some Forts Were Signal Stations. *Sunday Advocate-News*, Bridgetown 17 January 1971.
- 1971c Queen's Park House Was Army Commander's Home. *Sunday Advocate-News*, Bridgetown 16 May January 1971.

Barbados Museum and Historical Society.

- 1976 *Report on the Slave Insurrection in Barbados, 1816* [reprint of 1819 booklet]. Barbados Museum and Historical Society, St. Ann's Garrison, Bridgetown, Barbados.

Barbados National Trust.

- 1983 *Gun Hill and Signal Station*. Barbados National Trust, Bridgetown.
- 2012 Gun Hill 10c Stamp, Barbados, Government of Barbados. Gun Hill Signal Station File. Stamp issued 13 March 2012 as part of Barbados Garrison and its History Series.
- 2013 Cotton Tower File. Records related to the restoration and Maintenance of Cotton Signal Tower, St. Joseph Parish Barbados.

Bates, L.

- 2007 *Surveillance and Production on Stewart Castle Estate: A GIS-based Analysis of Models*. [Online] Available at: : <http://www.daacs.org/wp-content/uploads/bat-esthesis.pdf>. DAACS [Accessed 20 May 2013].

- Beckles, H.  
 2004a *Black Rebellion in Barbados: the Struggle Against Slavery, 1627-1838*. Antilles, Bridgetown.  
 2004b *Great House Rules: Landless Emancipation and Workers' Protest in Barbados 1838-1938*. Ian Randle Publishers, Kingston.  
 2006 *A History of Barbados: From Amerindian Settlement to Caribbean Single Market*. Cambridge University Press, Cambridge.
- Benmoyal, J., Baulu, A. and J. Baulu.  
 1992 *Grenade Hall and the Signal Stations of Barbados*. The Barbados Primate Research Center and Wildlife Reserve, the Barbados National Trust, Caribbean Graphics and Letchworth, Ltd., Bridgetown, Barbados.
- Bentham, J.  
 1791 *Panopticon or The Inspection House, etc..* [Online] Available at: [http://www.scran.ac.uk/ada/documents/castle\\_style/bridewell/bridewell\\_jeremy\\_bentham\\_panoption\\_vol1.htm](http://www.scran.ac.uk/ada/documents/castle_style/bridewell/bridewell_jeremy_bentham_panoption_vol1.htm) [Accessed 7 August 2013].
- Campbell, P.  
 1993 *Some Early Barbadian History*. Caribbean Graphic and Letchworth Ltd, Bridgetown.
- Cherry, J., K. Ryzewski and T. Leppard.  
 2012 Multi-period landscape survey and site risk assessment on Montserrat, West Indies. *Journal of Island and Coastal Archaeology* 7/2: 282-302.
- Conolly, J.  
 2008 Geographic information systems and landscape archaeology. In: *Handbook of Landscape Archaeology*, edited by D. Bruno and J. Thomas, pp. 583-595. Left Coast Press, Walnut Creek.
- Davis, C.  
 2013 *Viewshed Analysis of Betty's Hope Sugar Plantation, Antigua, West Indies*. [Online] Available at: <http://www.csuchico.edu/geop/Student%20Map%20Gallery/Advanced%20GIS-%20Cate.pdf>. [Accessed 3 June 2013].
- Delle, J.  
 1998 *An Archaeology of Social Space: Analyzing Coffee Plantations in Jamaica's Blue Mountains*. Plenum, New York.  
 2002 Power and landscape: spatial dynamics in early-nineteenth century Jamaica. In *The Dynamics of Power*, edited by M. O'Donovan, pp. 341-161. Center for Archaeological Investigation, Carbondale.
- Dunn, R.  
 1972 *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624-1713*. University of North Carolina Press, Chapel Hill, North Carolina.



- Epperson, T.  
 1999 Constructing difference: the social and spatial order of the Chesapeake plantation, in *I, Too, Am America*, edited by T. Singleton, pp. 159-172. University of Virginia Press, Charlottesville.
- 2000 Panoptic plantations: The garden sights of Thomas Jefferson and George Mason, In *Lines That Divide: Historical Archaeologies of Race, Class, and Gender*, edited by J. Delle, S. Mrozowski and R. Paynter, pp. 58-77. University of Tennessee, Knoxville.
- Foucault, M.  
 1977 *Discipline and Punish: The Birth of the Prison* [Surveiller Et Punir]. Vintage Books, New York.
- Grenade Hall Signal Station.  
 2013 *Grenade Hall Forest and Signal Station* [brochure]. Barbados Wildlife Reserve. Barbados Wildlife Reserve, Grenade Hall Forest and Signal Station, Bridgetown.
- Handler, J. and R. Hughes.  
 2001 The 1816 slave revolt in Barbados and the petition of Samuel Hall Lord. *Journal of the Barbados Museum and Historical Society* 47: 267-286.
- Handler, J. and F. Lange.  
 1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. Harvard University Press, Cambridge.
- Harlow, V.  
 1926 *A History of Barbados: 1625-1685*. Negro Universities Press, New York.
- Higman, B.  
 1984 *Slave Population of the British Caribbean*. The Johns Hopkins University Press, Baltimore.
- Kerrigan, P.  
 1995 *Castles and Fortifications of Ireland 1485-1945*. Collins Press, Cork.
- Leone, M.  
 2005 *The Archaeology of Liberty in an American Capital*. University of California Press, Berkeley.
- Leone, M. and P. Potter.  
 1988 The Georgian order as the order of merchant capitalism in Annapolis, Maryland. In *The Recovery of Meaning: Historical Archaeology in the Eastern United States*, edited by M. Leone and P. Potter, pp. 219-229. Smithsonian Institution Press, Washington DC.
- NASA.  
 2005 *Shuttle Radar Topographic Mission*. [Online] Available at: <http://www2.jpl.nasa.gov/srtm/srtmBibliography.html> [Accessed 20 June 2013].
- O'Sullivan, M. and L. Downey.  
 2012 Know your monuments: Martello and signal towers. *Archaeology Ireland*, 26/2: 2.

- Randle, L.  
2011 Applying the panopticon model to historic plantation landscapes through viewshed analysis. *Historical Geography* 39: 105-127.
- Schomburgk, R.  
1848 *The History of Barbados comprising geographical and statistical description of the island; a sketch of the historical events since the settlement; and an account of its geological and natural productions*. Longman, London.
- Shackel, P.  
1994 Town plans and everyday material culture: an archaeology of social relations, in *Historical Archaeology of the Chesapeake*, edited by P. Shackel and B. Little, pp. 85-100. Smithsonian Institution Press, Washington DC.
- Singleton, T.  
2001 Slavery and spatial dialects on Cuban coffee plantations. *World Archaeology* 33/1: 98-114.
- Starke, J.  
1893 *Starke's History and Guide to Barbados and the Caribbee Islands*. Photo-Electrotype Co. Publishers and Bowen and Sons, Boston.
- Stoute, E.  
1986 *Glimpses of Old Barbados*. Barbados National Trust, Bridgetown.
- Upton, D.  
1988 White and black landscapes in eighteenth-century Virginia. In *Material Life in America, 1600-1800*, edited by E. George, pp. 357-369. Northeastern University Press, Boston.
- Wheatley, D.  
1995 Cumulative Viewshed Analysis: a GIS-based method for investigating intervisibility. In *Archaeology and Geographic Information Systems: A European Perspective*, edited by G. Lock and G. Stancic, pp. 171-186. Taylor and Francis, London.
- Whitley, J.  
2001 *The Archaeology of Ancient Greece*. Cambridge University Press, Cambridge.
- Williams, E.  
2005 [1944]. *Capitalism and Slavery*. University of North Carolina, Chapel Hill.
- Yearwood, S.  
1838 *Barbados Pocket Book or Lady's and Gentleman's Souvenir, an Almanac for Barbados for the year of our Lord God, 1838*. London: Samuel Yearwood [Special Collections, Library, Barbados Museum and Historical Society].

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# The 2009 and 2010 Synagogue Compound Excavations

An Exploration of the Material Culture of the first 100 years of the Nidhe Israel Community

*Derek R. Miller*

## **Abstract**

Jewish settlers arrived in Barbados in the 1630s and by the 1660s had established in Bridgetown a synagogue compound that included a synagogue, burial ground and *Mikveh*. This compound was a place where Jews could celebrate their religion and heritage within an emerging major port in the Atlantic system. However, it was also constructed within a social environment where Jews were merely tolerated and seen as a source of possible social disruption. This was done in the context of the developing plantation economy that would become reliant upon enslaved Africans and the structures and ideologies of race on which this economic system was justified. This chapter explores how Jews used material culture to navigate their social position to construct a Jewish community that was at once recognizable by any Jew but also uniquely Barbadian.

**Keywords:** *Jewish diaspora, Bridgetown, community, tombstones.*

## **Introduction**

In the summers of 2009 and 2010, at the request of the Nidhe Israel Museum and Dr. Karl Watson from the University of West Indies, Cave Hill, I led a team of students from the College of William and Mary in the United States on an archaeological excavation within the walls of the historic synagogue compound. As we carefully re-

vealed the stratigraphic layers containing the material stories of those who lived and worshipped in this space, we had a prime post for observing the reactions of those who entered into the compound. The faces of first-time visitors tended to contain a mixture of relief and awe. They felt relief from having successfully navigated the streets of Bridgetown to find what at the time was a hard-to-find entrance off of the small Synagogue Alley. The awe was from the restored synagogue, burial grounds, *Mikveh*, and museum that all spoke of a thriving Jewish community on Barbados during the early modern period. This relief and awe are not the product of happenstance but are the direct result of the challenges the early modern Jews on Barbados faced as they established a community.

The Jews on Barbados during their first hundred years were tolerated but not fully trusted. Although, the Jews were permitted a place for their organized religion within the Anglican space of the colony, they were originally considered ‘foreigners and strangers’ (*Minutes of Council*, August 12, 1656, p. 250, cited by Davis 1909:130). The Jews could not rely on the protection of the colonial government against anti-Semitic discrimination and consequently tended to minimize the visibility of their community within the social fabric of Bridgetown. Thus, while they constructed a place where they could celebrate their culture and religion – the awe reflected in modern visitors’ faces – they took numerous material steps to ensure this space was not disruptive nor highly visible to those living and working in Bridgetown – echoes of which are seen in the relief modern tourists feel having found the synagogue compound. They did this within the context of the developing sugar economy that relied upon the labor of enslaved Africans and the developing racial ideologies that underpinned this system. This paper explores the materials uncovered archaeologically from the 2009 and 2010 excavations to reveal how the Jews on Barbados used material culture to define their place on Barbados from the community’s founding in the 1640s to its population peak in the mid-eighteenth century.

## **A Brief History**

The first Jewish merchants visited Barbados in the 1630s. While most of these Jews were brief visitors, a few established long-term merchant relationships and businesses (Schreuder 2006). At least two individuals, Simon Enrique and Benjamin De Caceres, purchased plantations. These two would be recognized by the Governor of Barbados in 1653 as inhabitants of this island of Barbados (Schreuder 2004:277), although whether they publicly identified as Jewish is unclear. It was not unusual during this period for Jewish merchants operating within Europe and the Atlantic to use non-Jewish aliases for their business dealings, particularly with Gentiles, and only openly affirm their Jewish identity within the contexts of their home and community (Sarna 2001). While these first Jews helped set the stage for what was to come, it was during the 1640s and early 1650s that the Jewish population shifted from a network of individuals to an organized community.

The 1640s saw two key events that increased Jewish settlement on Barbados. The first was the English Civil War (1642-1651). The Civil War disrupted reliable trade routes with the metropole leading other country’s merchants to fill the void. Dutch traders were one such opportunistic group (Schreuder 2006). Many Jews living in

the United Provinces were trans-national merchants and seized the opportunity to establish business relationships on Barbados (Israel 2002). The other key event was the Portuguese conquest of the Dutch colony in Brazil. The Dutch had permitted Jewish settlement and this was the first openly practicing Jewish community in the Americas (Feitler 2009). Unfortunately for this short-lived community, the Portuguese brought the Inquisition to the Americas. While some Jews went underground, many fled, with a few refugees landing on the shores of Barbados.

These refugees brought with them valuable knowledge concerning sugar production. The economy of Dutch Brazil was based on slavery and sugar. While living in Dutch Brazil, Jews were both merchants and planters and gained significant insights into sugar agriculture and refinement, established important trade networks, and became familiarized with an economic system built off of slavery (Boyajian 2001; Israel and Schwartz 2007; Pjing 2001). This knowledge was invaluable to the struggling colony of Barbados during the 1640s as it transitioned from tobacco and cotton to large-scale sugar production. Sugar would soon define Barbados's economy. At least two of the wealthiest Jews to live on Barbados during the seventeenth century, David Raphael de Mercado and Lewis Dias, brought with them new knowledge in sugar processing technology (see Samuel 1936:19 and Hall 1764:472). This knowledge was key intellectual capital that helped smooth the way for Jewish settlement within the Anglican space of Barbados.

Barbados was legally open to non-Anglican inhabitants. The Barbados Charter, signed in January 1652, included within its first article:

*'that a libertie of conscience in matters of religion be allowed to all'* (Schomburgk 1848:280)

making it clear that non-Anglicans could at least live on the island. However, the Barbados Charter said nothing about the practicing of religions and directly after guaranteeing 'libertie of conscience' the charter suggests the immediate enactment of laws regulating certain religious practices. Liberty of conscience just meant that an individual could believe whatever religion they wanted but provided no protections, guarantees, nor rights to that person to even speak of their religion. While another 1652 law stated that all the laws concerning free enjoyment of Religion within the Commonwealth of England also applied to Barbados, there were no laws in the Commonwealth of England at the time that dealt with Jews. Thus, while Jews could legally settle on Barbados and believe in Judaism, they had no protections nor guaranteed rights to practice their religion.

In the early years, Jews tended to live within the Cheapside district of Bridgetown. An early reference to the Jews Brick House in this neighborhood suggests a common place of gathering, and may be in reference to an early place of worship (Bowden 2003:30). In the 1650s, the Jewish community gained control of the area where the synagogue is today. The oldest surviving tombstone within the Jewish burial grounds dates to 1658 and belongs to Abraham Eliyahu da Fonseca Valle (Shilstone 1988:98). The earliest documentary record indicating the synagogue is a 1664 deed for the neighboring Quaker Meeting House (Quaker Records 1948:82). This record includes an outline of the synagogue suggesting the synagogue was already constructed but does

not indicate exactly when construction had occurred. The Jews' decision to establish a place for practicing their religion was done without the benefit of legal protection nor with a clear idea about how they would be accepted within an English space.

Neither the English on the island nor the Jews had a model for how Jews and English Christians could live side by side. The English had banned Jews from their territory in 1290 AD (Endelman 2002:15) and only in the 1650s did Jews begin to unofficially settle in London. The Barbados Synagogue predated the synagogues of London. Both Christian colonizers and the small Jewish community had to devise their own way of making such a multi-faith society work. This was done in the context of the developing plantation economy that would become reliant upon enslaved Africans and the structures and ideologies of race on which this economic system was justified. For the Jews on Barbados, they were clearly not English, either from a cultural or a religious perspective, and white Jews would not be granted equal rights to Christians on Barbados until 1831 (John Carter Brown Library, Providence, RI, 1832 *West Indies-Toleration Laws*). At the same time that the Jews were learning to situate themselves within an English and plantation society, these Jews were also developing a sense of what a Jewish community would and could mean. For most of these Sephardic Jews, their experiences with an organized Jewish community was limited. Coming from Inquisitorial Spain and Portugal, these Jews were accustomed to hiding their religion. The United Provinces would be the first northern European country permitting a publicly recognized synagogue with the Jews entering into a contract with a Dutch builder in 1612 for the construction of an edifice specifically intended for Jewish worship (Bodian 1997:47). For most of the Jews arriving on Barbados, this was not just a chance to define a Jewish place on the island but also to define what it meant to be an openly practicing Jew with an organized and institutionalized religion.

The Jews in Barbados navigated their liminal place within the early colony to create a community. They did so through a number of means: legal, political, and social. One of the most significant ways was through material culture both monumental and mundane, sacred and profane. The artifacts discussed in this paper are not interpreted:

*'as a badge of ethnicity or emblem of style but as a constituent of social practice that fostered cultural production and reproduction'* (Silliman 2009:225).

The material culture of the synagogue compound and the materials within the synagogue compound were neither created nor used with the express goal of identifying their users as Jewish, although there were times when the materials were employed for such a purpose. Rather, these materials, when taken in total, helped frame and shape Jewish activities and practices. It was these practices, both sacred and mundane, that united those whom life had dispersed (Sarna 2001:522).

## **The Material Negotiations of Jewish Life**

The English governors felt a constant tension between their desire to tolerate Jews because of their economic contributions to the island and their fear that inviting a religious and cultural other within their colonial space could prove disruptive if not disastrous. The Jews were well aware of this tension as they sought to establish a com-

munity. This challenge was something Jews throughout the early modern Americas faced, as they typically practiced:

*'discretion on the outside by not drawing excessive attention to themselves, while glorying in their faith on the inside, where tradition reigned supreme'* (Sarna 2001:525).

Similarly, other non-Anglican groups, like the Catholics, also found that they were tolerated on Barbados only as long as they did not disrupt the status quo of the emerging sugar and slavery system (Handler and Reilly 2015). The Jews sought a balance between public discretion and a private celebration of their Jewish history and traditions. The Jews used material culture to strike this balance.

Jews were navigating this tension when they laid the foundations of their community. The synagogue compound was situated within the margins of early Bridgetown. It is unclear exactly when and how the Jewish community gained the land for the compound, but this was not desirable land. The compound was located on the swampy margins of Bridgetown, not off of any major roads, and near the powder magazine (Figure 10.1). This latter condition was particularly worrisome considering the frequency of fires within early colonial cities (Bowden 2003). It was not a coincidence that their closest neighbor would be the Quakers, another religious outsider group within Anglican Barbados. The echoes of this spatial marginality were clearly etched in

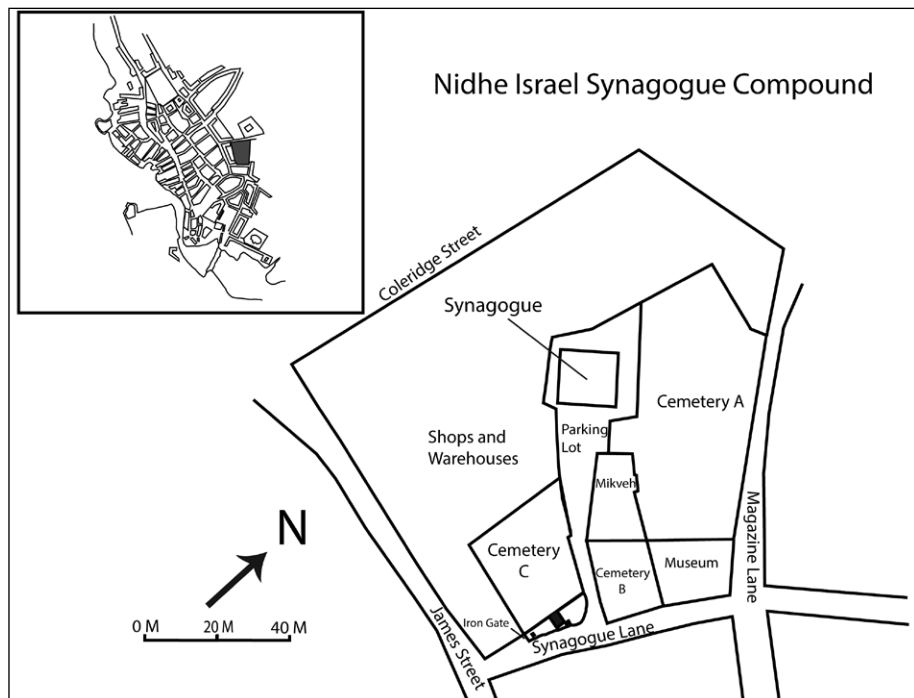


Figure 10.1. Layout of the Nidhe Israel Synagogue Compound with an inset of the location of the synagogue compound within Bridgetown. The area magnified is indicated in grey.

the relieved faces of the tourists who finally found the synagogue compound while the archaeological work was being completed in 2009 and 2010.

The juxtaposition of the synagogue and burial ground demonstrates the challenges of Jewish life on Barbados as it went against Jewish tradition. According to Jewish tradition, the burial ground should be constructed on the outskirts of town connected to the synagogue by a pathway or road (Terrell 2005:58). Religious tenants were further broken by the *Mikveh's* proximity to the burial ground (Figure 10.2). Such compromises to religious ideals were likely forced upon the Jewish community. While the Jews were granted unprecedented freedom as compared to any other place within the English Atlantic in even having a place of worship because of the important role their trade networks provided the English colony, such toleration had limits. Land was valuable and the Jewish community on Barbados was only permitted a small space for their religion within the undesirable marshy outskirts of the emerging urban center.

Once established, the Jews designed the compound to minimize the visibility of the community. Archaeological excavations uncovered the original coral stone pathway (Figure 10.3). The pathway itself was finely laid with small drainage ditches upon both sides (Miller 2010, 2011b). The pathway sat between a wall that demarcated the sacred ground of the Beth Haim and the wall that demarcated the boundaries of the compound itself. This pathway led to the main historic entrance to the compound, a small gate situated at an acute angle to the road known today as Synagogue Alley. This was not a grand entrance providing sweeping views of the compound. Rather, this was a humble entrance allowing for the subtle ingress and egress to the communal space.

Such subtlety helped minimize the presence of the Jewish community within Bridgetown. Throughout the Americas, Jews took steps to downplay their presence within their host societies. Englishmen who criticized Jewish settlement within English territories often spoke of their fears that the Jews would overtake local businesses and eventually dominate all forms of trade. A group of Barbados merchants claimed in 1655:

*'that the Jews are a people so subtle in manners of trade, and that they and their stocks are so settled in other nations that in short time they will not only ingross trade among themselves, but will be able to divert the benefit thereof to other places'* (Sainsbury 1964a:49).

Within such a social climate, it is not surprising that Jews took steps to hide their numbers, which it should be pointed out was always a tiny minority on Barbados, with the Jewish community at its max numbering no more than 800 individuals (Watson 2005:42). The acute angle of the entrance to the compound allowed Jews to enter and exit the compound seamlessly with the flow of foot traffic, analogous in purpose to an exit/entrance ramp on a highway. Such seamless movement of Jewish bodies was necessary as Jews moved through the city with a different rhythm traveling to and from the synagogue during the busy market day of Saturday.

Within the walls of the synagogue compound the Jewish community could worship freely, but outside these walls the Jews were outsiders and prejudice was not uncommon. The threat of such prejudice was violently actualized in 1739 when an angry mob burned the satellite synagogue in Speightstown to the ground. The dispute started at a





*Figure 10.2. Photograph of the synagogue compound as it looked in 2010. The restored synagogue is in the background and the restored burial ground in the foreground. The restored Mikveh is the coral stone building on the left-hand side of the photo (Derek Miller).*



*Figure 10.3. The original coral stone pathway with drain feature (Derek Miller).*

Jewish wedding when the father seized a wedding guest, Gilbert Burnet, and dragged him before the magistrate for stealing. Burnet claimed to be the son of a prominent English family. Christians in Speightstown were outraged at the 'Insolence' of a Jewish man doing this to a 'Gentlemen.' In a classic form of prejudice, these Christians believed it was justified to assault a community for the actions of an individual, thus burning down the material heart of the Jewish community. To make matters worse, Gilbert Burnet was actually Tom Bell, a notorious confidence man who pulled off numerous scams throughout the colonies and was described as the greatest villain that was ever born (Bullock 1998). Ultimately, the actions of the father were justified as it was Bell who would be found guilty for his crimes. Unfortunately, the verdict came well after the synagogue was destroyed and there is no record of the arsons being charged.

These tensions played out in the material culture that the Jews decided to purchase. In 1651, the English passed the first of the Navigation Acts. This series of laws created a map for economic activity with the metropole being reserved for the production of finished goods and the colonies being dedicated to the production of raw materials and consumption of metropole-produced finished goods. Colonies were only supposed to ship and trade with English ships (Magnusson 1995). These laws tied the purchasing of goods to loyalty to the crown. The materials recovered from the synagogue compound suggest the Jews followed these laws. The synagogue compound was littered with the goods readily available in the Bridgetown shops with almost no imported materials from France, Spain, or Portugal. The Jews, when it came to the material of the everyday, purchased mostly the same goods as their neighbors.

This was likely a strategic choice as the Jews had access to a wide range of trade networks throughout the Atlantic. Historian Jonathan Israel's detailed exploration of Jewish trade records has shown that:

*'the Navigation Acts were observed by Barbados Jews neither in the letter nor the spirit, since they continued to import large amounts of Dutch, Westphalian and Silesian linens, spices, and manufactures, from Amsterdam, and export sugar and tobacco and Holland'* (2002:403).

There is no evidence of these manufactures within the walls of the synagogue compound. Jews may have been circumnavigating the Navigation Acts in business, but anybody observing Jewish everyday public life would see compliance. For every positive word written about Jewish trade networks, there were others on Barbados who felt that the presence of Jews was inconsistent with the safety of Barbados (Sainsbury 1964b: 69). By purchasing the same goods as their neighbors, the Jews ensured that anybody viewing them saw someone in compliance with the laws and regulations of England.

## **The Material Practices of a Community**

While the Jews were minimizing their presence on Barbados, they were not totally hiding as they did during the Inquisition, and they sought to create and maintain a thriving community that celebrated their religion and heritage. The synagogue compound was a space defined by Jewish religion and traditions. The compound as it

developed would have been recognizable to any Jew, yet it was also a space that was uniquely Barbadian.

The orientations of the compound situated the Jewish community within a larger, historical geography that spoke to their heritage. The synagogue, like nearly all Jewish synagogues, was designed so that the ark, the cabinet that holds the Torah, would be on the eastern wall. As Jews prayed, they would face the ark, key for the people of the Book, as well as facing towards their historic homeland, the ancient Kingdom of Israel (Baron 1942:75). The name the Jewish community chose included this interlocking of geography and identity, *Nidhe Israel*, meaning 'the scattered from Israel'.

Moreover, the rhythms of activities within the compound were informed by a historical geography. During the early years, the synagogue compound hosted numerous key celebrations as indicated by the presence of artifacts related to feasting. The earliest stratigraphic layers dating to the seventeenth century included sizeable amount of faunal material, including evidence of a possible roasting of a cow, alongside numerous ceramic plates and serving dishes (Miller 2010, 2011a, 2011b, 2013). The celebrations of these key events corresponded with the Jewish religious calendar, a calendar that was established during the times of the Old Testament and within the geography of the Middle East. This calendar was created within the climate and agricultural practices of this region. For example, Passover occurs in the Spring and is associated with the first crops of barley. Religious practices maintained symbolic connections to both of these things despite the differences in seasonality and crops on Barbados. When these celebrations occurred throughout the year they reflected the historical geography of the Kingdom of Israel as opposed the lived geography of the Caribbean.

This temporality was something that the Jews believed was essential as evidenced by their tombstones, another archaeological assemblage that provides material correlates to Jewish identity on the island. Ninety-six percent of the surviving tombstones include a date of death in the Jewish calendar. Sixty-nine percent of the surviving tombstones have both the Hebrew and Christian calendar. These two calendars were placed side by side but were not interchangeable. This was true for the 27 tombstones with only English inscriptions, as 20 of these stones included the date of death in both the Hebrew and Christian calendar. Of the seven stones that only included the Christian calendar, five of them date after the 1850s when the Jewish community's numbers had greatly decreased. Before 1775, only three stones had the date of death in only the Christian calendar, and no stone before 1725 had just the Christian calendar. The Christian and Hebrew calendars were not simply two-sides of the same coin but spoke of two different cultural registries. The lunar Hebrew calendar contained within its very structure the geographies of Jewish identity and history. The two calendars were not, and are not, different words for the same thing, and thus for the Jews on Barbados they could exist side-by-side but never one for the other.

Jewishness was not just an identity based upon genealogy but one that was affirmed through ritual practice. The community on Barbados sought to follow many of the key practices of purity dictated by their religion. Archaeologist Michael Stoner in 2008 uncovered the foundations of the ritual bath, or *Mikveh*. This ritual bath was extravagantly made with imported slate and tiles leading down to the bath itself. The bath was constructed on top of a natural spring and the builders laid the stone so that the water from the spring could flow into the bath. Even today, the water level of the

bath fluctuates with the changing water table. The *Mikveh* played an essential role for the reproduction of the community within the purity laws of the Jewish religion as a woman could not return to the marital bed after menstruation until she had bathed in the *Mikveh* (Leibman 2009). This meant that the *Mikveh* was essential for the spiritual and physical reproduction of the Jewish community.

This purity and sacredness of the synagogue compound was strictly controlled by the *Mahamad*, the council of community leaders. It was these leaders who would have gathered and invested the funds for the *Mikveh*. In 1792, the sacredness of this space was challenged when Lunah Arrobas passed away. Lunah was part of a Jewish family, but her own Jewishness, in terms of religion, was questioned by the Jewish leaders. Her will stands in sharp contrast to other Jewish wills from Barbados as she only included Christians as benefactors and witnesses (Will, 4 September, 1792, Arrobas Family Wills, Barbados, West Indies, 1733-1792, 1910/SC-520, American Jewish Archives, Cincinnati, Ohio). Nearly every other surviving will of a Jewish individual during the seventeenth and eighteenth centuries is replete with other Jewish names indicating the tightly bound Jewish community. The noticeable absence of Jews from Lunah's will hints at a disconnection from the Jewish community. Yet while there is evidence of isolation, Lunah self-identified as Jewish within her last will and testament. Her will was a legal document notarized by the colonial government, and thus the colonial government considered Lunah Jewish. Therefore, the colonial government mandated that the Jewish community bury her within their burial ground. This was an order that the Jewish community originally refused to follow. Likely due to the actions that led to Lunah's social isolation, the leaders of the Jewish community believed that Lunah's burial within the sacred space of the burial ground would pollute this space. Ultimately, the colonial government overruled the Jewish leaders and forced them into a compromise where Lunah's burial would be within the technical confines of the compound but towards the edges and separated by a pathway from sacred ground (Shilstone 1988:xi-xii).

While the Jewish community took many material steps to construct a space that was distinctively Jewish, this was also a place of cultural innovation that was uniquely Barbadian. While the material forms of the synagogue and *Mikveh* may have been traditionally Jewish, the building materials were mostly local limestone. Moreover, the small stones placed on Jewish tombstones per Jewish tradition were indigenous to Barbados. The first pathway was constructed out of coral rubble (Figure 10.3). In the ensuing years as the pathway became overgrown with weeds and refuse, the Jews turned to a local technological innovation, marl, to re-pave this area creating the desired clean surface (Figure 10.4). While the forms were extracted from Jewish tradition, the technologies and materials needed for construction were local to the island creating a compound that was both Jewish and Barbadian.

The quotidian materials found within the compound also took on a local flavor. The ceramics, pipes, and glassware would have been seen within the homes of many of their non-Jewish neighbors (Figure 10.5). As consumers, the Jews bought and used many of the same items available in the shops in Bridgetown keeping up with the changing ceramic styles of the English switching from the tin-enamel wares and midlands slipwares of the seventeenth century to the popular white salt-glazed stoneware ceramics of the early eighteenth century. Additionally, there were the remains of local

Figure 10.4.  
The east profile  
of the excavated  
trench with  
Terminus Post  
Quems and  
Mean Ceramic  
Dates.

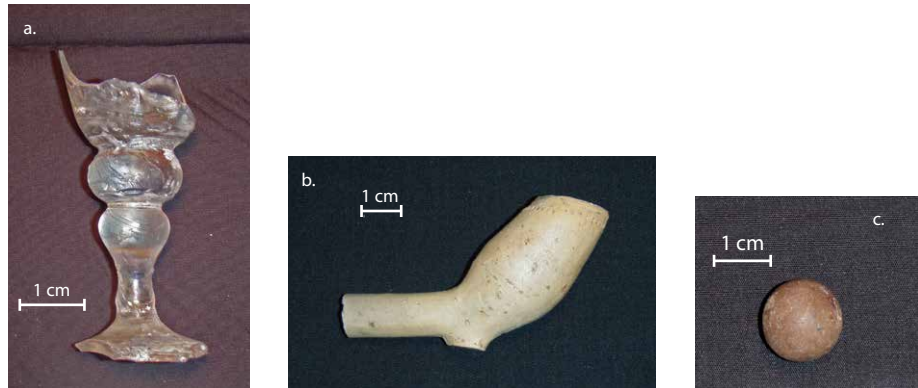
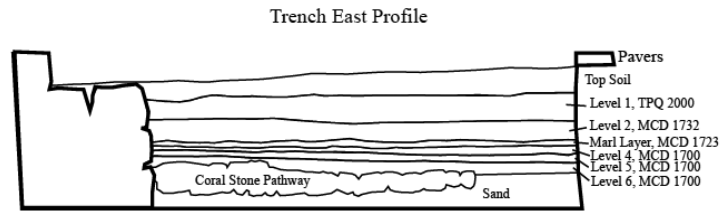


Figure 10.5. Artifacts found during the excavations including a wine glass (a); clay pipe (b), marble (c) (Derek Miller).

Barbadian redwares found in the compound indicating that the Jews were not just buying imported materials but also were participating in the emerging local markets. Several sherds from sugar molds provide material evidence of Jewish involvement within the sugar economy.

But it is perhaps the tombstones that most clearly indicate that the Jews on Barbados were creating a new hybrid culture. These tombstones were made exclusively for a Jewish audience as entrance into the compound was strictly controlled. Yet, the Jews did not limit the languages on their tombstones to just the languages of their forefathers, Portuguese and Spanish, or their religious language, Hebrew; many tombstones also included English (Table 10.1). During the seventeenth and eighteenth centuries, English was not used as a substitute for other languages but rather included side-by-side a heritage language and a religious language. This may have been inspired by some of the first leaders of the Jewish community. Joseph Jessurun Mendez, who went by Lewis Dias when engaging with the English, was one of the central figures of the early Jewish community. Included within the Portuguese portion of his epitaph was '*FUNDOU A EZNOGA DA NIDHE ISRAEL*' meaning 'to lay the foundation or ground-work of the Synagogue Nidhe Israel.' Mendez did not just include an epitaph in Portuguese, but also included epitaphs in Hebrew and English. That Mendez chose to embrace English may have helped set the standard for English to be incorporated within the sacred space of the burial grounds. Noticeably, this linguistic choice stands in contrast to the largest Jewish community in the Americas, the Jodensavanne in Suriname, where Jews did not begin to include languages besides Spanish, Portuguese, or Hebrew until the nineteenth century (Ben-Ur and Frankel 2009). The tombstones

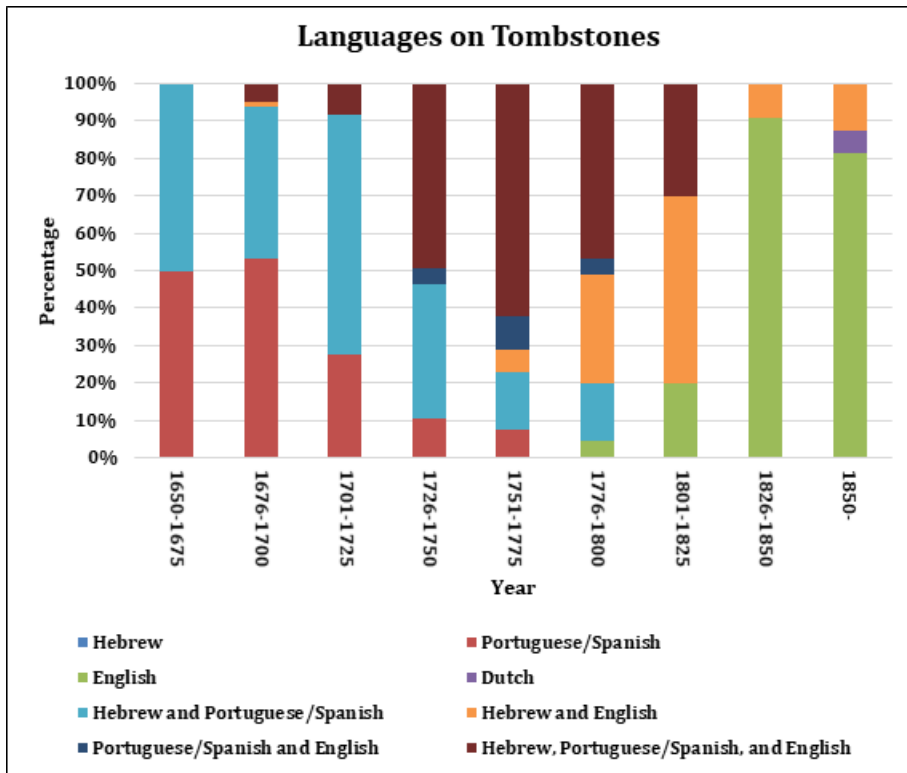


Table 10.1. Distribution of languages used on Jewish epitaphs.

suggest that as the Jewish community grew on Barbados they began to incorporate aspects of the developing Barbadian society into their lives. The inclusion of all three languages on Barbados encapsulates the hybrid nature of Jewish life on Barbados with its roots in Iberia, Judaism, and Barbados.

### Jews and Enslaved Individuals

A discussion of the early modern Jewish community on Barbados must also consider the Jewish relationship with enslaved individuals. Jews were owners of enslaved individuals. The 1680 census listed 54 Jewish households in Bridgetown. These households owned 163 enslaved individuals, or approximately three enslaved individuals per household (Dunn 1969). Nearly every household (91%) owned at least one enslaved individual. For those Jews who owned plantations, these numbers were likely higher. A survey of 88 wills showed that Jews typically bequeathed enslaved individuals to their children with manumission being relatively rare.<sup>1</sup> Only four of the wills included a request for manumission of an enslaved individual and one of those wills belonged to the ostracized Lunah Arrobas.

<sup>1</sup> The wills surveyed are copies of wills from Barbados that are housed at the American Jewish Archives in Cincinnati.

Jewish slave ownership was partially contested within the laws of Barbados. While Jews were always permitted to own enslaved individuals, how many enslaved individuals a Jew could own was debated. In 1688, the Barbados Colonial Government passed a lengthy *Act for the governing of Negroes* amending a similarly titled 1661 act in which the seventeenth clause focused on Jewish ownership of enslaved individuals. Using the justification of security, the law stated that 'no person of the Hebrew nation residing in any Sea-port Town' shall own more than a single enslaved individual, unless said member of the Nation 'are denized by His Majesty's Letter Patent' in which case they can own 'no more than for their own use' (Hall 1764:119). This final clause points to the underlying logic behind this law, as it sought to curb the urban Jewish population from increasing their wealth by renting enslaved individuals to others for a profit, a common practice of urban slavery throughout the Atlantic world. This law did not last long as the Jews through petitions had this clause repealed in 1706.

The colonial elites saw Jews as key allies when it came to monitoring, controlling, and disciplining the enslaved population. For while there were fears concerning Jewish economic activity and loyalties to the crown, these quelled in comparison to the fears of a slave rebellion. Seeking all allies that they could after a recent slave revolt, Governor Willoughby dropped the general restrictions from Jews providing testimony in courts outside of cases dealing with other Jews or trade stating:

*'that in the time of the late Usurpation, their Testimonies were then admitted in all Courts, and in all cases whatsoever'* (Davis 1909:131-132).

In general, Jewish testimony in court was considered not permissible since Jews would not swear on the Holy Bible, something that went against the Jewish faith. But in the case of a slave revolt, any information from any source that could prevent the upturning of the slave system was desired. Such transactional shifts in policies, illuminate the importance of Jews being allies against the enslaved population and helped affirm Jews as part of the slave owning part of colonial Barbadian society.

Within the materials found during the archaeological excavations, there is no single object that can be directly tied to an enslaved individual. Nevertheless, the synagogue compound must be interpreted within the framework of enslaved people. The funding of the synagogue compound largely came from Jewish involvement in the slave economy, either directly from such activities as renting out enslaved individuals or indirectly from the shipment of sugar. The *Mabamad* used enslaved individuals to conduct a number of tasks within the compound. It was likely that the walls of the synagogue, the *Mikveh*, the schoolhouse, the pathway, and the layers of marl were all the products of enslaved Africans and Afro-Barbadians knowledge, expertise, and labor. As remains the case today, we often know the designers and owners of buildings but rarely know the laborers who are responsible for that building's physical construction. The synagogue compound is no different. This was a place that was literally built by enslaved workers and to not acknowledge this is to erase these individuals from the history of this space.



## Conclusions – Wrapping up the Tensions

The original Jewish community in Barbados would reach its population peak around the 1750s and then begin a slow decline. It was during this population decline that Jews gained more legal rights. In 1786, Jews were granted the right to give testimonies in all courts of law (Lucas 1946/47:88-90). In 1831, white Jews were given the same rights as white Christians (John Carter Brown Library, Providence, RI, 1832 *West Indies-Toleration Laws*). Yet, despite the greater legal rights, the Jewish community from the mid-eighteenth century onwards began to slowly dwindle in population. In 1928, Isaac Baeza would close the synagogue doors, sell the compound into private hands, and send the Torah scroll to the Bevis Marks community in London (Shilstone 1988:xxii). It would not be until the 1970s that a small group of Jewish refugees from World War II, their descendants, and the Barbados National Trust would purchase the synagogue. Since then the synagogue compound has been largely restored and opened to the public as a museum and heritage site.

In this chapter, I focused just on the establishment of the first Jewish community on Barbados. I argued that this community sought to construct a place that celebrated their heritage and tradition – reflected in the awe on the tourists' faces. This celebration was conducted within a social environment where Jews were outsiders and a frequent source of a fear. The Jewish community, always conscious of their marginal social position, constructed a place that downplayed the community's presence. Jews used material culture to navigate their social world, ultimately creating a uniquely Barbadian Jewish community.

While this chapter only discusses the formation of this community, archaeological materials recovered date all the way into the twentieth century. In the spirit of further exploration, the report written from the field seasons alongside the doctoral dissertation on these materials have been placed for public access on the Digital Library of the Caribbean (Miller 2011b; 2013). All the artifacts recovered from these excavations have been catalogued and are stored in the Nidhe Israel Museum. Hopefully, future researchers can use this material to expand on what is written here as well as question the conclusions drawn. The study of the material culture of the Jewish community on Barbados not only provides new insights into the Jewish Diaspora, but also helps us better understand Bridgetown and Barbados. It helps illuminate how a group of people dispersed from their homeland, and largely outside the structures of power, albeit still free, were able to construct a community and a culture that could both honor its heritage beyond the island and also be Barbadian. Moreover, as a community on the margins, Jews frequently complicated cultural notions concerning race, class, and religion. It was often within these challenges, and the intersections of these various forces, that Barbadian society was defined.

## Acknowledgements

I want to thank Matthew Reilly for inviting me to contribute to this volume. A special thanks to Karl Watson who invited me to do the original research. Michael Stoner was kind enough to share all of his insights and evidence that he gained from previous excavations in the synagogue compound. Frederick Smith helped make many of the connections possible for this project. Funding for this project included the Benard



and Audre Reapaport Fellowship at the American Jewish Archives, the Touro National Heritage Trust Fellowship at the John Carter Brown Library, and the Explorers Club Washington, DC Group.

## References

- Baron, S.  
1942 *The Jewish Community: Its History and Structure to the American Revolution, Vol. I*. The Jewish Publication Society of America, Philadelphia.
- Ben-Ur, A. and R. Frankel.  
2009 *Remnant Stones: The Jewish Cemeteries of Suriname: Epitaphs*. Hebrew Union College Press, Cincinnati.
- Bodian, M.  
1997 *Hebrews of the Portuguese Nation: Conversos and Community in Early Modern Amsterdam*. Indiana University Press, Bloomington.
- Bowden, M.  
2003 The three centuries of Bridgetown: an historical geography. *Journal of the Barbados Museum and Historical Society* 49:1-137.
- Boyajian, J.  
2001 New Christians and Jews in the sugar trade, 1550-1750: two centuries of development of the Atlantic economy. In *The Jews and the Expansion of Europe to the West: 1450-1800*, edited by P. Bernardini and N. Fiering, pp. 471-484. Berghahn Books, New York.
- Bullock, S.  
1998 A Mumper among the gentle: Tom Bell, colonial confidence man. *The William and Mary Quarterly* 55/2:231-258.
- Davis, N.  
1909 Notes of the history of the Jews in Barbados. *American Jewish Historical Society* 18:129-149.
- Dunn, R.  
1969 The Barbados census of 1680: profile of the richest colony in English America. *The William and Mary Quarterly*, Third Series, 26/1:4-30.
- Endelman, T.  
2002 *The Jews of Britain: 1656 to 2000*. University of California Press, Berkeley.
- Feitler, B.  
2009 Jews and New Christians in Dutch Brazil, 1630-1654. In *Atlantic Diasporas: Jews, Conversos, and Crypto-Jews in the Age of Mercantilism, 1500-1800*, edited by R. Kagan and P. Morgan, pp. 123-151. John Hopkins University Press, Baltimore.
- Hall, R.  
1764 *Acts Passed in the Island of Barbados, from 1643, to 1762, inclusive*. Printed for Richard Hall, London.

- Handler, J. and M. Reilly.  
 2015 Father Antoine Biet's Account Revisited: Irish Catholics in Mid-Seventeenth-Century Barbados. In *Caribbean Irish Connections*, edited by A. Donnell, M. McGarrity and E. O'Callaghan, pp. 33-46. University of West Indies Press, Mona, Jamaica.
- Israel, J.  
 2002 *Diasporas within a Diaspora: Jews, Crypto-Jews, and the World Maritime Empires (1540-1740)*. Brill, Boston.
- Israel, J. and S. Schwartz.  
 2007 *The Expansion of Tolerance: Religion in Dutch Brazil (1624-1654)*. Amsterdam University Press, Amsterdam.
- Leibman, L.  
 2009 Early American Mikvaot: ritual baths as the hope of Israel. *Religion in the Age of Enlightenment* 1:109-145.
- Lucas Manuscript.  
 1946-7 Lucas Manuscript Volumes. *Journal of the Barbados Museum and Historical Society* 14/ 1-2:70-94.
- Magnusson, L. (editor).  
 1995 *Mercantalism: Volume 1*. Routledge, New York.
- Miller, D.  
 2010 The Bridgetown Synagogue pathway archaeological project: a preliminary report. *Journal of the Barbados Museum and Historical Society* 56:87-104.  
 2011a Scattered synagogues: an archaeological exploration of diasporic community creation. *Post-Medieval Archaeology* 45/2:357-362.  
 2011b The Jewish community of Bridgetown, Barbados: A historical archaeology study. Report presented to The Explorer's Club Washington, DC Group.  
 2013 'A Medley of Contradictions': The Jewish Diaspora in St. Eustatius and Barbados. Ph.D. dissertation, Department of Anthropology, College of William and Mary, Williamsburg, VA.
- Pijning, E.  
 2001 New Christians as sugar cultivators and traders in the Portuguese Atlantic, 1580-1650. In *The Jews and the Expansion of Europe to the West, 1450 to 1800*, edited by P. Bernardini and N. Fiering, pp. 485-500. Berghahn Books, New York.
- Quaker Records.  
 1948 Quaker records. *The Journal of the Barbados Museum and Historical Society* 15/2:81-83.
- Sainsbury, W. (editor).  
 1964a *Calendar of State Papers, Colonial Series, America and West Indies, 1661-1668*. Kraus Reprint Ltd, Vaduz.  
 1964b *Calendar of State Papers, Colonial Series, America and West Indies, 1681-1685*. Kraus Reprint Ltd, Vaduz.

- Samuel, W.  
 1936 *A Review of the Jewish Colonists in Barbados in the year 1680*. Purnell & Sons, LTD, London.
- Sarna, J.  
 2001 The Jews in British America. In *The Jews and the Expansion of Europe to the West: 1450-1800*, edited by P. Bernardini and N. Fiering, pp. 519-531. Berghan Books, New York.
- Schomburgk, R.  
 1848 *The History of Barbados*. Longman, London.
- Schreuder, Y.  
 2004 A true global community: Sephardic Jews, the sugar trade, and Barbados in the seventeenth century. *Journal of the Barbados Museum and Historical Society* 50:166-194.  
 2006 Evidence from the notarial protocols in the Amsterdam municipal archives about trade relationships between Amsterdam and Barbados in the seventeenth century. *Journal of the Barbados Museum and Historical Society* 52:54-82.
- Shilstone, E.  
 1988 *Monumental Inscriptions in the Burial Ground of the Jewish Synagogue at Bridgetown, Barbados*. Transcribed with Introduction by E.M. Shilstone. MacMillan Publishers, Barbados.
- Silliman, S.  
 2009 Change and continuity, practice and memory: native American persistence in colonial New England. *American Antiquity* 74/2:211-230.
- Swetschinkski, D.  
 2004 *Reluctant Cosmopolitans: The Portuguese Jews of Seventeenth-Century Amsterdam*. The Littman Library of Jewish Civilization, Oxford.
- Terrell, M.  
 2005 *The Jewish Community of Early Colonial Nevis*. University Press of Florida, Gainesville.
- Watson, K.  
 2005 The Sephardic Jews of Bridgetown. In *Beyond the Bridge*, edited by Woodville Marshall and Pedro Welch, pp. 37-58. The Barbados Museum and Historical Society and the University of West Indies, Cave Hill, Bridgetown.



Section Three

# **Material Culture and Human Lifeways**

*Under the editorial supervision of  
Matthew C. Reilly and Douglas V. Armstrong*



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## 'Are they local or foreign?'

An examination of some Barbadian potteries and market networks

*Kevin Farmer, Jeffrey R. Ferguson & Michael D. Glascock*

### **Abstract**

Historic ceramics on the island of Barbados have been manufactured since the mid-seventeenth century. This paper examines the manufacture and distribution of historic ceramics from a sampling of ceramics held in the collection of the Barbados Museum and Historical Society, to ascertain their point of manufacture and distribution on island. The research seeks to provide new insight into the pottery manufacturing industry of Barbados and provide a new methodology for identifying historic Barbadian Ceramics.

**Keywords:** *Historic ceramics, Provenance, Petrography, Trade networks, Compositional analysis.*

*'The clay, mixed more or less with siliceous material were formerly extensively used for the preparation of earthenware. The potteries were very numerous during the last century, when it was customary to manufacture forms for making clayed sugars. Goglets, pitcher, and some other coarse articles of pottery and ware, are still manufactured in the Scotland district'* Schomburgk (1848: 571).

### **Introduction**

Robert Schomburgk, in his mid-nineteenth-century history of the island, informs us of the use of the clay resources of Barbados, their extensive use in the sugar industry and changes that occurred a century later when the industry started to produce domestic wares, presumably for local consumption. His observations, though cursory, allow a

glimpse into the extent of use of the local clays on the island. Unfortunately, he does not describe for us the manner in which the ceramics were formed, though he provides us with the names of some of the forms created. This chapter examines manufactory locales and networks to market revealed through the use of neutron activation analysis (NAA) at the University of Missouri Research Reactor (MURR) Archaeometry Lab. The comparative analysis against other locally produced ceramics in the region allowed for categorization of the staples from Barbados. Its implication for ceramic research on island will also be discussed.

Contemporary research into pottery manufacture in the region has been taken up with the search for Africanisms and locating such low-fired ceramics within a tradition of cultural retention, resistance and economic marronage and cabotage (Bueze 1990; Ebanks 1995; Heath 1991,1999; Petersen *et al.* 1999). These low-fired ceramics were made primarily by women in small household craft shops. Such cottage industries could be both local and regional in relation to where the pottery was traded (Hauser 2009). In this cottage industry, notions of identity were assumed to rest with hand-built low-fired ceramics (Ebanks 1984; England 1994; Hauser 2008; Mathewson 1972). As such, little attention has been given to wheel-thrown, kiln-fired industrial, domestic and other forms, manufactured during the pre- and post-emancipation eras in the West Indies. Previous scholarship in this area has sought to examine evidence of creolization in Barbados (Loftfield 2001), trade networks and interaction areas in Martinique and Guadeloupe (Kelly *et al.* 2008), and trade areas in St. Eustatius (Gilmore 2005). Wheel-thrown industrial ceramics are a potentially extensive and an important subset of low-fired earthenware production in the region (Kelly *et al.* 2008). As such, these ceramics can no longer be ignored when discussing ceramics production in the region during the historic period.

These products were created by enslaved Africans, who utilized access to this technology to fashion forms for themselves, initially for subsistence and then later on for trade purposes. Such agency is worthy of recognition and study. One must move the discussion away from function into the avenues of trade and distribution networks to tease out and answer questions of interaction and social networks at play (Handler 1963a; Hauser 2008; Kelly *et al.* 2008; Loftfield 2001). Research into Barbadian ceramics has noted its limited temporality and knowledge of vessel forms and trade networks (Loftfield 2001), but has acknowledged an industry at work since the mid-seventeenth century, given the petrological analysis of ceramics excavated at the failed Barbadian-led settlement on the Cape Fear River (Thomas Loftfield pers. comm.). This tradition will be addressed in this chapter as we examine the manufacture and distribution networks by exploring the compositional nature of the manufactured ceramic.

## Sites sampled

Evidence of locally fired ceramics had been observed at plantation sites and ploughed fields across the island from the late nineteenth century until the present time period. Their ubiquity was in fact taken for granted. Ceramic sherds present at sites lacked datable diagnostic features, which rendered the ability to interpret their presence moot. As such, their use as indicators of agency was also minimized. Based on data presented here, however, such ceramics serve as indicators of a robust trade network, demonstrat-



ing human interaction in both the formal and informal market system where they were consumed by enslaved and free peoples. Accessing such trade networks relies upon compositional analysis.

The specimens analyzed, taken from the excavated material held at the Barbados Museum and Historical Society, include samples from one well-known and historically-documented manufacturing site, surface collections from historic sites, two production sites with standing remains, and two excavated urban habitation sites, one a synagogue, the other an urban dwelling. Both the sampling of sites and finds from those sites were chosen randomly from collections of the Museum. The decision to sample traditional early-twentieth-century sites of production was to allow for a comparison between manufactory techniques over four centuries, as well as to compare whether paste recipes might have changed over time and space.

Of these, Codrington College, a seventeenth-century plantation complex with a well-documented manufactory plant and sugar works, is located in the southeast of the island. Its kiln site revealed a sizeable waster heap; unfortunately, the waster pile was not excavated to reveal the kiln structure. The other manufactory sites include Pothouse, with its remains of three beehive up-draft kilns, and Mr. Green's kiln site, located within the traditional post-emancipation locus of Barbadian pottery – Chalky Mount. The samples predominantly comprised of industrial sherds, including architectural components like tile and brick, though some domestic wares were also included. Along with these wares, the specimens included five clay samples taken from traditional source areas in the Scotland District of Barbados. These samples were subjected to optical thin section petrography and NAA to identify mineral, physical and chemical compositions. Compositional study was undertaken to discern any homogeneity within the sample group, thereby identifying linkages between production sites and consumption areas and allowing for a discussion of trade and interaction spheres.

### **Ceramics in the post-emancipation period**

Documentary evidence indicates a developed ceramic industry in operation from the late seventeenth century to the mid-nineteenth century, producing primarily industrial wares for sugar production along with architectural elements and perhaps limited domestic wares (Handler 1963a; 1963b). Following the introduction of steam and the changeover to mechanized sugar production, the market for industrial wares diminished and was replaced by domestic production conducted at the household level. This domestic production allowed for creation of utilitarian household items along with decorative homewares such as flowerpots and ashtrays, especially as the nineteenth century drew to a close. The transition clearly indicates that market forces significantly influenced production development. Many of these wares were increasingly sold by middlemen – who were in fact mostly women. These itinerant traders, called hawkers in Barbados, acted as conduits through which the potters' creations flowed to a purchasing market.

Although scholarship in the region has engaged the history and existence of locally produced earthenwares (Ebanks 1995; England 1994; Gillmore 2005; Handler 1963a; Hauser 2008; Kelly 2008; Loftfield 2001) few have examined systematically the compositional nature of these ceramics. Regional compositional studies have been

primarily focused on handmade pottery (Crane 1993; Hauser 2008; Peterson and Watters 1999; Watters 2001), with some analysis done on wheel-thrown wares (Kelly 2008; Loftfield 1992; Scheid 2007; Stoner 2000) with Kelly being the only person undertaking research on interaction between two different islands. Gilmore's focus though on the Dutch island of St Eustatius included compositional analysis to verify the origin of ceramic vessels traded to St Eustatius, given its lack of clay resources. No systematic compositional work of Barbadian wheel-thrown ceramics has been undertaken to discern trade routes, production sites and clay sources until now.

Historic site excavation in Barbados since the 1970s noted this ubiquitous ware in the fields surrounding the plantation. In the 1990s Loftfield's work at Codrington noted their presence at the sugar factory site and subsequently at the Kiln site, which was later excavated by Scheid. Loftfield and Scheid also excavated the Pothouse site, located less than two miles north-west of the Codrington Estate. Earthenwares were surface collected by Watson from the Stewart Hill site and curated at the Barbados Museum, while Stoner and Smith noted earthenwares in urban Bridgetown at the Synagogue, Mason Hall and Jubilee Garden sites.

The wares sampled are predominantly industrial. These include sugar cones, drip jars, tiles and bricks as well as some utilitarian wares. The sample from the Codrington and Pothouse manufactories includes two types of sugar wares – sugar cones and drip jars (also referred to as 'drips and jars'). These thick-walled industrial sugar wares are wheel-thrown earthenware, normatively called 'Redwares' in Barbados owing to their general color. The paste is fine to medium with little inclusions and, where evident, consists of detrital inclusions and some grog. The surface is untreated, a practice that continued in the late historic period. Some utilitarian ware is perhaps existent in the sample but is diagnostically indistinguishable from the industrial wares. The cores of all five wares are indicative of a reducing environment that over time becomes fully oxidized. There is little variation in paste based on visual, petrographic and chemical analysis, perhaps indicating a sustained level of standardization. Some wasters were recovered from the manufactory sites. Collections from the other rural and urban sites mimic the characteristics of the ceramics excavated at the pottery manufactories. No handmade vessels were evident in the obtained sample.

Contemporary accounts and documentary data indicate the systematic training of and the production of ceramics by descendants of the enslaved. The records of the Codrington Estate conclusively document the apprenticeship system instituted by the plantation to instruct chosen enslaved men to create and replicate European forms for the express purpose of use in the production of sugar. Further documentary evidence highlights the change from industrial to domestic manufacture a century after the end of enslavement. Such evidence also notes the sale of manufactured vessels to neighbors and the sale of vessels in urban and rural markets. In such records it is clear that the manufacture of wares underwent devolution from an industrial type within a centralized production zone before mechanization of the sugar industry, to a localized manufacture within family size units for sale to a market. Both were local to the point of manufacture and distant from the point of manufacture for a regional market.

In focusing on pottery samples from the late-seventeenth century through to the nineteenth century, compositional analysis was employed to discern the extent of the trade and distribution of locally produced earthenwares on the island. Analysis identi-

fired paste recipes utilized in the manufacture of ceramics; comparative analysis of paste recipes allowed for identification of similar recipes that, dependent on their location, allowed for discussion of shared knowledge and trade of ceramics across the island. Conversely, differing paste recipes allowed for exploration of the possibility of multiple clay sources being utilized in the manufactory process, as well as indicating the presence of differing paste recipes and potters engaged in ceramic production on the island. Altogether, chemical analysis provided the foundation upon which diagnostic characteristics of pottery produced in Barbados are identified.

Both petrographic and NAA testing enabled the heterogeneity and homogeneity of paste recipes to be identified and characterized and this allows for a greater understanding of what, if any, similarities can be discerned between production and distribution sites. It simultaneously provides information of any changes over time that occurred at the pottery manufactory related to paste recipe and raw material locations. Finally, compositional analysis of five clay samples allows for comparative study between production sites and raw clay sources to pinpoint provenance. Petrographic analysis provides opportunities for comparisons between the results of the two techniques to allow for a discussion of shared paste recipes and raw materials, sources of clay and temper across the island. More importantly, such tests allow for the identification of distinctly Barbadian ceramics amongst the assemblages excavated, and in so doing establish a benchmark against which future ceramics on the island can be distinguished comparatively from other coarse wares manufactured in the region.

Barbadian Redwares are characterized by a dark core present in the center of the wall, surrounded by exterior and interior surfaces, which are lightly colored (reddish brown to fawn). Such observations are in keeping with organic matter present in the clay which did not undergo full oxidation during firing; as such it was possibly fired at a temperature around 800°C (Rice 1987: 335). At present this is mere supposition, as no experimental archaeology has been undertaken to verify this temperature, though it is in keeping with known firing temperatures that would produce such a reduced core.

In some instances, vessels are fully oxidised with no reduced core, indicating that at some point in time the technique of firing, type of kiln, or paste recipe changed so as to ensure a more consistent firing temperature. Such color variation in the fired clay highlights the ability to sustain and maintain a firing environment up to 900-950°C, the temperature at which full color development of iron in an oxidising environment takes place (Rice 1987: 335). With full color development reached, one is able to speculate on the percentage of iron compounds present in the clay. Given the hues of light brown through red observed in the sample, one may estimate ferrous compounds of between 1.5-3 per cent and above present in the clays used to fire the ceramics sampled from the pottery manufactories in Barbados (Rice 1987: 335; also see 1996a; 1996b.).

In discussing the distribution of ceramics utilizing compositional analysis, there is oftentimes the misuse of the terms 'provenance' and 'provenience' as interchangeable nouns in the discussion of the spatial location of ceramics. We suggest, similar to Hauser, that there is a need to differentiate between the two terms: provenance as the ability to identify the geological source from which the ceramic recipe is derived; whilst provenience is concerned with the identification of the place in which the ceramic is manufactured (Hauser 2008).

The technique of provenance studies seeks to identify minerals, elements and constituents identified from the ceramic, and correlate them with known geological formations so as to locate the source origins of the clays used in the manufacturing process. The knowledge gained from both provenance and provenience allows for an in-depth and informed discussion of the commodification, consumption and distribution networks utilized to provide access to markets of both the producer and consumer. In so doing, it provides an alternative narrative for ceramics vessels, not as mere conveyers of cultural traits (Handler 1963; Loftfield 2001; Nicholson 1990; Watters 2001) but as active symbols of enslaved agency. As a manufactured and consumed item, the ceramics vessel is an object of trade, a utilitarian implement created by market forces and enslaved hands (Hauser 2008).

### **Petrography**

A sample of 56 sherds from the collection of excavated archaeological material and field surface collections of early twentieth-century ethnographic kiln sites was examined, along with five clay samples from traditional historic source areas. The sampling strategy included untreated wares, both of an industrial and domestic type, with emphasis on pottery manufactory sites Pothouse (n=19), and Codrington (n=11); concentration, along with ethnographic sites of production: Mr Green's Kiln (n=4) and the Chalky Mount Kiln (n=6). A control sample of prehistoric sherds from Silver Sands, Barbados was included (n=5), as well as contemporary traditional coarse earthenware from the neighboring island of Saint Lucia (n=11). After thin sectioning and examination under plain and polarizing light, the sizes of inclusions and minerals were measured according to accepted standards. Further, the sizes of the isolated mineral grains and rock fragments were measured using a graduated reticule built into one of the microscope's optics and compared with standardized charts. The percentages of inclusions observed in the paste of the two sherds were estimated using comparative charts.

The petrographic analysis of the sherds has resulted in some similarity being observed amongst the various samples, namely the presence of coral, quartz and sandstone found in those historic earthenwares. The higher incidence of sand found in the prehistoric Silver Sands (SS) samples as opposed to those of the historic earthenwares can best be explained by one action. During historic pottery manufacture, the greater preparation of the clay results in impurities being extracted, as better processing is required for wares that are to be wheel thrown. Such a production process is unwarranted in prehistoric pottery, which is hand built and where sand acts as a temper during the firing process. Such an observation remains to be tested in relation to hand-built ceramics in the region to confirm if indeed such pottery contains a greater proportion of sand in the recipe.

Sandstone evidenced in the historic pottery is perhaps as a result of the Tertiary period sandstone which underlays the coralline cap of the island and is found in the clay deposits located in the island's central parishes. Further, residue of the coralline cap would be expected within the clays of the island, both as a naturally occurring element as well as added as temper by some potters during the recipe preparation. The selection of clays during the historic period was judicious as potters opted to use clay with fewer sand grains in its matrix. The sandstone noted in the ceramics analysed seems to be as

a result of its procurement. Those five clay samples that underwent petrography were fired so as to not chemically alter the mineral structure. Samples could also be examined to ascertain if salt was a natural element, as well as provide evidence of the textural and compositional nature of the clays on the island.

Clay samples BDS 116, 117, 118 have bi-refracting pastes, which contain fragments of poorly wedged clay and rounded soil pizolites. Pizolites are rounded opaque inclusions that form in soils that are repeatedly wetted. Inclusions of poorly wedged clay were commonly observed in the ceramic thin sections (Hill 2010). The samples BDS-118 and BDS-119 contain 10% and 15% grains of sand respectively. Sand was almost completely absent from the other three samples of clay. The sand was likely weathered from the Tertiary sandstone. The presence or absence of sand grains appears to vary based on the locations from where the clay was derived (Hill 2010). The presence of sand in some of the thin-sectioned ceramics indicates that ceramics were manufactured from various clay sources on the island, and that such sources are not homogenous. It is therefore possible to locate clay sources if one was to sample all the clay deposits on the island. Such a study was not undertaken for this work but perhaps can be explored in the future, especially if completing research to comparatively examine and determine the distribution patterns of locally-made earthenware vessels in the region.

In the case of the Chalky Mount pot sherd samples, none of the sherds contain greater than 5% inclusions of sand. The sand concentrations in the samples derived from the Pot house 1BJ15 were much more variable, ranging as high as 15%. The variability in the amount of sands observed in the Pot house 1BJ15 sample indicate that more than a single location may have been used to procure clay for potting. The presence or absence of fragments of coal sands in the ceramics from this provenance is also likely to be an indication that multiple sources of clay were used by the potter or potters at this location (Hill 2010).

Variable amounts of sand were present in all of the pottery that was believed to have originated on Barbados, including ceramics from known potters' craft shops. Clay resources vary in the percentage of sands that they contain. The sand in the paste of the sherds was likely a natural inclusion in the source of the ceramic clay rather than an added tempering agent. The variation in the percentage of sand observed in the ceramics reflects the variation in the source of the pottery clay.

Given the simple geology of Barbados, potters had multiple sources of acceptable clay from which to choose. Some of the choices in resources may have been governed by the forming technology used by the potters. The identification of constituent minerals and temper included quartz, feldspar (potassium and plagioclase), mica, and opaque, with tempers of grog, shell and carbonate rocks. The Barbadian ceramics, once the control samples from Silver Sands and Castries are discarded, are primarily composed of quartz, plagioclase feldspar, potassium feldspar, mica, opaque minerals, fossil fragments (coralline nature), grog, and sandstone. Mica was identified as either muscovite or biotite, with quartz fragments showing either a monocrystalline or polycrystalline texture.

## Neutron Activation Analysis (NAA)

Some 120 sherd samples and five clay samples were analysed using both petrographic analysis and NAA. Petrographic analysis revealed ceramic recipes, clay sources, and any compositional similarities so as to discuss possible distribution routes. The NAA, conducted by the University of Missouri, identified chemical compositions not evidenced by petrographic analysis. Taken together, both techniques provide evidence which speaks to the homogeneity and heterogeneity of both the ceramic assemblage and clay samples, thereby allowing for an informed discussion of the location of clay sources versus paste recipes, and the possible networks of distribution from production sites to markets and places of use and refuse. Analysis of the samples was undertaken to compare them to historic pottery samples from around the region previously analysed at MURR. The comparative analysis resulted in a reclassification of some of the groups into tighter more controlled groups, as well as identification of previously unknown outliers (Table 11.1; Figure 11.1).

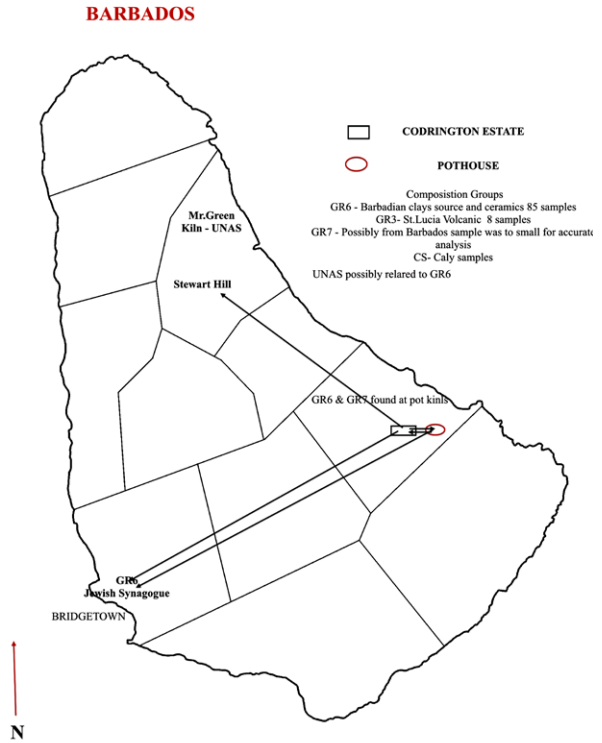
## Comparative Analysis

Overall, the reclassification illustrated the unique characteristics of Barbadian clay ceramics. This is a direct result of the divergent geologic foundation. Most of the islands near Barbados are volcanic in origin; however, Barbados is located on the other side of the boundary between the Caribbean and Atlantic plates and is primarily composed of seafloor sediments. While this unique geology is expected, the compositional uniformity of the samples from Barbados is remarkable for the Caribbean. The reinterpretation of the data by MURR illustrates the divergent nature of the composition of the Barbadian ceramics, pointing to a need for further research to better understand the nature of the Barbadian manufactory output, its clay sources and its trade in relation to other islands in the region. The clay and pottery samples in this study are limited to four of the eight groups so far established in the small dataset from the eastern Caribbean. Each group is described below.

The first group is comprised of ceramics from the islands of Saint Lucia, Martinique and Guadeloupe, referred to as Group 3. This group includes the eight Saint Lucian samples in this study, along with 41 other samples, mostly from the other islands that are geologically volcanic. They correspond to Gillmore's findings of the comparative analysis undertaken of the ceramics from St Eustatius and its neighboring volcanic islands. Compared to the main Barbados group (Group 6), Group 3 is very diverse. This group is considered preliminary as it is based on a reinterpretation of the entire Caribbean dataset that includes new samples from Dominica. Many of the samples in Group 3 are very recent samples submitted by Dr Hauser and are thus not yet publicly available. The eight samples submitted for this project that have been assigned to Group 3 are statistically very good members of the larger group, but they do seem to form a tight cluster, as is apparent in both bivariate plots and in a hierarchical cluster analysis. Though the compositional consistency implies a related origin for the samples of Group 3, unfortunately the numerous samples in the group do not allow for a specific production location to be known at this time.

Group 6 comprises the majority of the Barbados ceramic sample (79%) and is clearly the tightest cluster in all the Caribbean data. The majority of the unassigned

Figure 11.1. Map indicating source clays, pot house groups and distribution Points.



Site	Compositional Group						Total
	3	6	7	8	Unas.	Outlier	
Barbados Synagogue		2	1		3		6
Codrington Pottery Kiln		38			7		45
Mason Hall			2			1	3
Mr. Green Kiln					3		3
Pot House		10					10
Stewart Hill		8		1	1		10
IBJ6		27			2	1	30
St. Lucia (Castries Market)	8						8
<b>Total</b>	<b>8</b>	<b>85</b>	<b>3</b>	<b>1</b>	<b>16</b>	<b>2</b>	<b>115</b>

Table 11.1. Distribution of compositional group by site following regional analysis.

Date	Compositional Group						Total
	3	6	7	8	Unas.	Outlier	
1666		1	1		1		3
1700-1800		61	2		5	2	70
1800-1900		9			2		11
1800-early 20		14		1	5		20
1940-1970					3		3
<b>Total</b>	<b>0</b>	<b>85</b>	<b>3</b>	<b>1</b>	<b>16</b>	<b>2</b>	<b>107</b>

Table 11.2. Distribution of compositional groups by site.

samples also show a close relationship with Group 6. Such a relationship is possible owing to the island's unique geology or limited use of raw materials. The tight clustering and lack of internal patterning for Group 6 suggests either biased ceramic sampling strategy throughout the region or secondly, little or no movement of ceramics produced on Barbados using local materials. The first comment might be probable, considering the limited nature of compositional analysis conducted on historic earthenware ceramics in the region. The second assertion concerning the limited movement and production of ceramics in Barbados utilising local materials is speculative at best, given the limited sample size. In addition, it does not take into account the results of the chemical composition of the clay samples from the island, which were taken from traditional clay producing beds utilized during the post-emancipation period and into the mid- to late-twentieth century and contemporary period.

Group 7 is comprised of three sherds and one clay sample, all from Barbados. Even so, such an assertion does not necessarily confirm the manufacture of these sherds using the clay source of the island, given the difficulty in statistically evaluating such samples. Confirmation would entail analysis of a much larger sample to validate its authenticity as Barbadian. A hierarchical cluster analysis of this group shows the clay sample to be the most distant member of the group. It must be noted that the sherds in this group were taken from the Synagogue site in Bridgetown and dated to approximately 1666, given the dateable European ceramics found in the context from which they were excavated (Stoner personal communication 2011). As such, it is the earliest date for a compositional analysis of pottery from Barbados. Whether the pottery is in fact Barbadian is debatable; however, this group includes one of the clay samples analysed from the Mount Al site located in the northern Barbadian parish of St Andrew. This clay deposit lies within the Scotland District of Barbados. Based on the limited evidence, the possibility of it being Barbadian cannot be overlooked.

Group 8 is also highly suspect, largely due to the small number of members. Only one sample from this project is included in this group. The group includes four industrial tile samples from Dominica. However, not much is known about this sample, and inference at this time would be speculative. Membership of the one sample from Barbados is questionable, as the hierarchical cluster reveals it is the most distant member of the group. At this point a definitive answer is not possible. It is possible that the samples from Dominica might have originated from Barbados, notwithstanding the evidence of Group 6 and its limited sample of the entirety of Barbadian pottery manufacture.

### **Unassigned Samples**

Small number of samples remain unassigned, however, notwithstanding the strict criteria for being identified within a group, the samples indicated strong similarity with Group 6, enough so that their compositional relationship to that group cannot be ignored. There are many samples that form a very tight cluster for Group 6, and this can statistically force out samples that only vary slightly from the group. As such, given the total compositional spread of all members of Group 6 and the unassigned samples, their relationship to each other is still tighter than all of the other large groups so far identified for the Caribbean. There were only two samples that did not meet these



limited criteria, and they have been assigned as outliers within the sample. Altogether, it is highly likely that the unassigned samples were manufactured on Barbados.

### **NAA Clay Samples**

The five clay samples are from only two locations on the island. One clay sample is assigned to Group 7 and the remaining four are among the unassigned samples that are clearly related to Group 6 (Ferguson 2011). The clay sample areas correspond to known and active contemporary and historic source areas, including areas ethnographically identified by Handler in the Chalky Mount region of the Scotland District. Whereas one may question the diversified nature of the sample, its limitations for study were attributed to access to known clay sources owing to lack of informants. Ceramic samples were taken from known manufactory points and included wasters as well as sherds. The lack of compositional diversity might highlight a growing standardization of the paste recipes at the known pottery manufactories and sites of refuse.

Such standardization presumably occurs early in this industry, given the nature of its products: manufactured ceramics for industrial and architectural purposes. Compositional Group 6 dominates the ceramics grouping. Such dominance calls into question the bias of the sample but also illustrates a consistency of production over time. The collection sites of the admittedly small sample are varied both spatially and temporally. Historic pottery manufactory sites, rural and urban discard sites, an early twentieth-century kiln site and a non-assigned historic site all shared a strong correlation in the compositional nature of ceramics examined.

This is nowhere more apparent than when one notes that the sherds from Codrington and Pothouse and those from the early twentieth-century kiln of Mr Green form part of the same compositional Group 6. Such consistency of production and uniformity of raw materials ranging over three centuries reflects the changes of an industry created to supply ceramic forms for industrial use and adapted to changes in taste when such forms were no longer needed. The industry devolved into a cottage industry informed by a market wanting domestic pottery, throughout which its consistent production of vessels and clay preparation remained constant (Table 11.2). Notwithstanding the small sample size, it is quite remarkable that compositional Group 6 dominates in frequency across the period. Though one must account for some bias in the sample, the inference that can be made is of the procurement of raw materials with a similar chemical composition over time as well as a consistent paste recipe over time. The ceramic production in Barbados over time and space accessed its raw materials from the deposits of the Scotland District, while continuing to utilize a paste recipe that was more than likely passed down from one generation to the next.

The NAA of the Barbadian sample has revealed a unique signature for the production of Barbadian ceramics. This unique signature should in theory allow for easy identification of Barbadian ceramics amongst ceramic assemblages in the region. At this time, there is no evidence of Barbadian ceramics in assemblages of other islands. This dearth of evidence is perhaps due to the limited and biased sample of ceramic assemblages in the region (Table 11.2). Some ceramics may have their origins or trade networks outside of their source island, but that is mere speculation at this time. Further research is needed into ceramic assemblages, clay sources and tempers to assert

a definitive statement of the manufactory sites and inter-island networks. At this time the evidence indicates a unique ceramic product signature identifiable to one island, Barbados.

## **Conclusion**

The petrographic and NAA of the Barbadian samples highlights their unique nature. Both petrographically and chemically, the ceramics and clay samples indicate similarities between groups across a wide spatial and temporal range, indicative of a selective technological choice by potters who procured clay from a source with wide petrographical range but limited chemical range. Production and product are Barbadian, inclusions of sand are naturally occurring and not added as temper, and any variance is dependent exclusively on procurement area. Barbadian Redware contains a unique characteristic that allows it to be identified amongst historic ceramics produced in the region. The scope of this research did not allow for a wide-ranging comparative analysis to be undertaken, but such work is clearly warranted in the future to better understand if indeed this product was traded and where. Its intra-island trade was made apparent by the sample results; the consistency of its production and paste recipe highlights standardization that was heretofore not apparent. Historians and archaeologists have anecdotally answered the question in relation to the movement and distribution of ceramics in Barbados during the historic period. They point to the many broken shards visible in field walks of the ploughed sugar cane fields as evidence of the ubiquity of production and refuse of pottery vessels on the island. However, they have not answered why or even how such movement took place.

We posit that persons moved and carried with them possessions, goods for sale, and gifts for friends, family, and loved ones to pay respect or debt. These vessels were both units of production, as well as currency for barter and exchange. Their presence on the ground is a culmination of legal and surreptitious work, beginning with legitimate plantation production during the pre-emancipation period, and continued by artisanal work for a domestic market in the post-emancipation years. However, the presence of such vessels was a result of local production contiguous with external importation that served a market for industrial, architectural and domestic wares. One has located sites of manufacture and places of use and gained a better understanding of the chemical composition so as to highlight place of origin. More work is needed to recover further networks both internal and external to Barbados.

## **Acknowledgements**

The NAA for this project was partially supported by a grant from the U.S. National Science Foundation to the Archaeometry Lab at MURR (#1621158).

## References

Agorsah, E.

1999 Ethnoarchaeological consideration of social relationship and settlement patterning among Africans in the Caribbean Diaspora. In *African Sites Archaeology in the Caribbean*, edited by J. Haviser, pp. 38-64. Markus Wiener Publications, Princeton.

Armstrong, D. and M. Hauser.

1999 Embedded identities: piecing together relationships through compositional analysis of low-fired earthenwares. In *African Sites Archaeology in the Caribbean*, edited by J. Haviser, pp. 65-93. Markus Wiener Publications, Princeton.

Barker, L and E. Poole.

1981 *The Geology and Mineral Assessment of the Island of Barbados*. Barbados Government Report, Bridgetown.

Courtney, P.

2004 Pathways of change: towards a long term analysis of the ceramic industry. In *The Archaeology of Industrialization, Association for Industrial Archaeology, Archaeology of Industrialization Conference Bristol, 1999*, edited by D. Barker and D. Cranstone, pp. 181-201. Maney Publishing, Leeds.

Crane, M.

1993 Colonoware and Criollo Ware Pottery from Charlestown, South Carolina and San Juan, Puerto Rico in Comparative Perspective. Unpublished Ph.D dissertation, University of Pennsylvania.

Ebanks, R.

1984 Ma-Lou and the Afro-Jamiacan Pottery tradition. *Jamaica Journal* 17/3: 31-37.

1995 A history of Jamaican ceramics, 1655-1840: Indigenization or creolization? Unpublished paper presented at the 28th AGM of the Society for Historical Archaeology, Washington DC.

England, S.

1994 Acculturation in the Creole Context: A case study of La Poterie, Martinique. Unpublished Ph.D. dissertation, University of Cambridge.

Ferguson, J. and M. Glascock.

2011 Neutron Activation Analysis of Ceramic and Clay samples from Barbados and St. Lucia, unpublished report Archaeometry Laboratory Research Reactor Center University of Missouri.

Fitzpatrick, S.

1996 Analysis on the elemental composition of ceramics in Barbados during the Saladoid and Suazoid period, unpublished graduate thesis, University of Montana.

Gilmore, R. III.

2005 The Archaeology of New World Slave Societies: A Comparative Analysis with particular reference to St. Eustatius, Netherlands Antilles. Unpublished PhD dissertation, University College London.

- Handler, J.
- 1963a A historical sketch of pottery manufacture in Barbados. *The Journal of the Barbados Museum and Historical Society* 30/ 3: 129-153.
- 1963b Pottery making in rural Barbados. *Southwestern Journal of Anthropology* 19: 314-334.
- Hauser, M.
- 2008 *An Archaeology of Black Markets: Local Ceramics and Economics in Eighteenth Century Jamaica*. University Press of Florida, Gainesville.
- 2009 Scale, locality and the Caribbean historical archaeology. *International Journal of Historical Archaeology* 13: 3-11.
- Heath, J.
- 1991a Pots of earth: forms and functions of Afro-Caribbean ceramics. *Florida Journal of Anthropology* 7/16: 33-49.
- 1991b Afro-Caribbean Ware on St. Eustatius: A Preliminary Typology. In *Proceedings of the 13th International Congress for Caribbean Archaeology*, edited by E. Ayubi and J. Haviser, pp. 338-43. Reports of the Archaeological/Anthropological Institute of the Netherlands Antilles, Curaçao.
- 1999 Yabbas, monkeys, jugs and jars: an historical context for African-Caribbean pottery on St. Eustatius. In *African Sites Archaeology in the Caribbean*, edited by Jay B Haviser, pp. 196-220. Markus Wiener Publications, Princeton.
- Hill, D.
- 2010 Petrographic analysis of Ceramics and Clays from Barbados. Unpublished report, Barbados Museum.
- Kelly, K., M. Hauser, C. Descantes and M. Glascock.
- 2008 Cabotage or contraband? compositional analysis of French colonial ceramics. *Journal of Caribbean Archaeology* 8: 1-23.
- Loftfield, T.
- 1992 Unglazed red earthenware from Barbados: a preliminary analysis. *The Journal of the Barbados Museum & Historical Society* 40: 19-36.
- 2001 Creolization in seventeenth-Century Barbados. In *Island Lives: Historical Archaeologies of the Caribbean*, edited by P. Farnsworth, pp. 207-233. The University of Alabama Press, Tuscaloosa.
- Mathewson, R.
- 1972 Jamaican ceramics: An introduction to eighteenth-century folk pottery in West African tradition. *Jamaica Journal* 6/2: 54-56.
- 1973 Archaeological analysis of material culture as a reflection of sub-cultural differentiation in eighteenth century Jamaica. *Jamaica Journal* 7/1: 25-29.

Nicholson, D.

1990 Afro-Antiguan folk pottery and emancipation. In *Proceedings of the Eleventh Congress of the International Association for Caribbean Archaeology*, edited by A. Tekakis, I. Arenas and M. Obiente, pp 433-437. La Fundacion Arqueologica, Antropologica e Historia de Puerto Rico/ La Universidad de Puerto Rico, San Juan.

Petersen, J., D. Watters and D. Nicholson.

1999 Continuity and syncretism in Afro-Caribbean ceramics from the northern lesser Antilles. In *African Sites Archaeology in the Caribbean*, edited by J. Haviser, pp. 157-195, Markus Wiener Publications, Princeton.

Rice, M.

1987 Pottery Analysis, A Sourcebook. University of Chicago Press, Chicago.

1996a Recent ceramic analysis; 1. function, style and origins. *Journal of Archaeological Research* 4/2: 133- 157.

1996b Recent ceramic analysis: 2. composition, production and theory. *Journal of Archaeological Research* 4/3: 167-202.

Scheid, D.

2007 The Barbados Ceramic Industry: Examining its scale and organization. In *Proceedings of the Twenty First Congress of the International Association for Caribbean Archaeology*, edited by B. Reid, H. Roger and A. Curet, pp. 573-578. University of the West Indies School of Continuing Studies, St Augustine.

2015 The Political Economy of Ceramic Production in Barbados: From plantation industry to craft production. Unpublished PhD Thesis, Syracuse University.

Stoner, M.

2000 Codrington Plantation: A History of Barbadian Ceramic Industry. Unpublished MA thesis Armstrong Atlantic State University, Savannah, Georgia.

Watters, D.

2001 Historical Archaeology in the British Caribbean. In *Island Lives: Historical Archaeologies of the Caribbean*, edited by Paul Farnsworth, pp. 82-99. University of Alabama Press, Tuscaloosa.



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# Health and life histories of enslaved sugar producers

Bioarchaeology of the Newton Plantation,  
Barbados

*Kristrina A. Shuler, Hannes Schroeder & William D. Stevens*

## Abstract

The Newton Plantation, Barbados (ca. AD 1660-1820) has been central to the development of African Diaspora bioarchaeology and provides rare insight into undocumented aspects of the lives of Africans who were enslaved on a British sugar-producing plantation. Excavations at an unmarked cemetery that accidentally discovered in the 1970s led to two decades of craniodental studies (n=101) by Robert Corruccini, Jerome Handler and colleagues who reported evidence of extremely poor nutrition and health but discrepancies between skeletal and historical life expectancy, which may have been due to limitations of the sample. Subsequently, 49 individuals and an MNI of 24 commingled individuals were excavated in the 1990s, building upon the earlier work and offering new insight into issues of systemic health, migration and identity. Life expectancy in the more complete sample falls closer to historic predictions and strengthens previous dental studies of rampant poor nutrition. Evidence of generalized infection is predictably high as is the relatively low mean stature in both males and females, but with a surprising lack of severe infection, including historically-documented diseases (*e.g.* syphilis, TB, leprosy), and traumatic injuries. Work-related stressors are severe, as expected, but with complex patterns in comparison to other labor systems. Finally, geochemical analyses of isotopes ( $\delta^{13}\text{C}$ ,  $\delta^{15}\text{N}$ ,  $\delta^{18}\text{O}$  and  $^{87/86}\text{Sr}$ ) have provided the first clear evidence of Barbadian (n=18) versus African birth (n=7) while elemental lead in teeth of children, like the adult skeletons studied earlier, demonstrate high skeletal lead burden that was, arguably, tied to contaminated rum. At least one individual

from the site displays skeletal defects consistent with early childhood exposure to alcohol, presumably from maternal consumption of rum. Here, we synthesize more than 50 years of bioarchaeological data from Newton to discuss quality of life and identities for enslaved sugar producers within a burgeoning global industry.

**Keywords:** *slavery, health, identity, African Diaspora, bioarchaeology.*

## Introduction

Much has been written about the African Diaspora and institutionalized slavery in the New World (Eltis 2000), but far less is known about the direct biological consequences of those who were forcibly enslaved and relocated throughout the New World between the sixteenth and nineteenth centuries (Shuler 2011). For the colonial sugar industry in the Caribbean, which has been documented as the harshest form of enslavement (Dunn 1973; Higman 1984), archival data attest to high mortality, suppressed fertility, and low stature relative to laborers engaged in other modes of production (Eltis 1982; Higman 1984; Kiple 1984; Postell 1951; Sheridan 1985; Steckel 1994). Nevertheless, even for this highest impacted region, medical biohistories remain quite rare (*e.g.* Handler 2006a; 2006b; Higman 1979; 1984; Kiple 1984; Kiple and Higgins 1992; Postell 1951; Savitt 1978; Sheridan 1985). The available biohistories (Eltis 1982; Higman 1979; Steckel 1994) and demographic profiles (Higman 1984; Steckel 1986, 1988, 1994) of enslaved individuals rely almost exclusively on sources such as letters written by those in positions of power (*e.g.* owners, overseers, physicians, etc.), slave ship manifests and accounting records from the transport and sale of humans treated as chattel, and census data: sources that promise a potential for bias when reconstructing quality of life (Ubelaker 1995). Moreover, health histories from pre-twentieth century medical texts can be challenging in their own right, as morbidity and mortality are often attributed to supernatural and/or humoral etiologies (Handler 2006a; 2006b; Shuler and Schroeder 2013) or merely described through vague symptomatic descriptions (*e.g.*: teething, fits, or fever) (Ubelaker 1995).

By combining the investigative insight of forensic anthropology with population-wide epidemiological approaches, bioarchaeology offers another avenue to understanding health and life experiences in the past (Buikstra 1977; Buikstra and Beck 2006; Larsen 1999; Martin *et al.* 2012). Demography (*e.g.* age, sex, and ancestry), growth and nutritional stress, as well as diseases, traumatic injuries, and a lifetime of activities all leave their indelible signatures on the skeleton. For individuals and groups who may remain historically invisible, textual biohistories can be supplemented, and in some cases contested, through biological data from archaeological sites (Tiesler *et al.* 2010: 70). In this chapter, we briefly summarize the results of nearly 50 years of published bioarchaeological research and graduate theses that have aimed at better understanding health, identities, and life histories of the enslaved laborers of the Newton Plantation in Barbados.

Newton Plantation (ca.1660-1820) in Christ Church Parish, Barbados is one of the earliest and largest archaeological sites that has been associated with colonial-period Africans and Afro-Barbadians in the new world (Handler *et al.* 1989) (see Figure 12.1). At its height, the plantation averaged about 420 acres of land



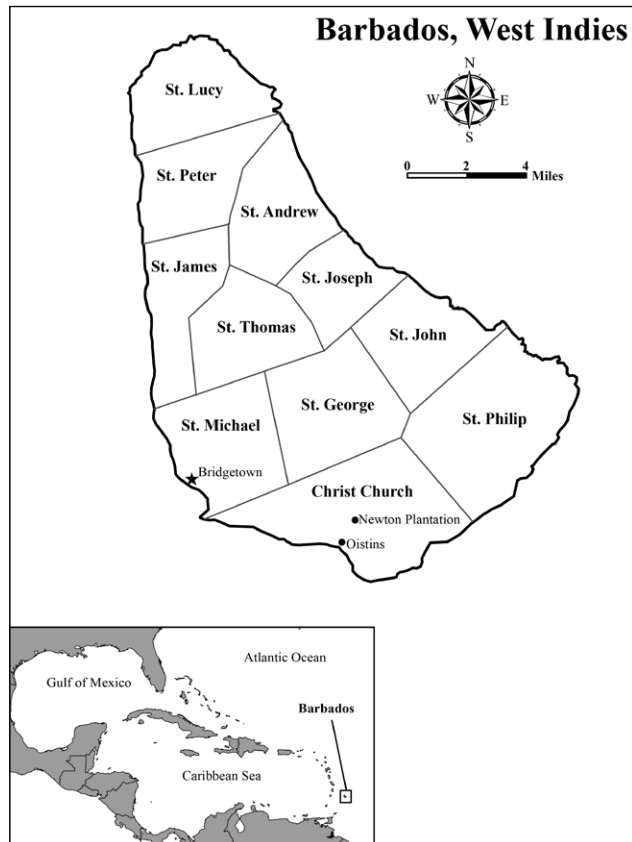


Figure 12.1. Map showing the location of Newton Plantation cemetery, Barbados.

and nearly 200 enslaved men, women, and children, although numbers fluctuated over time (Handler and Lange 1978). Archaeological research at Newton Plantation began in 1971 when J. Handler and coworkers sought to study living quarters at 14 Barbadian plantations (Handler and Lange 1978; Handler *et al.* 1989), and Newton was selected for investigations based on the inadvertent discovery of an unmarked potential 'slave cemetery' and an abundance of archival documents. Site excavations were conducted during two weeks in 1971 and six weeks in 1973, exposing 104 skeletons from a relatively small area (Figure 12.1; cf. Handler and Lange 1978). With the permission of the Barbados Museum, dentition and some relatively complete remains were studied at Southern Illinois University at Carbondale (SIUC) in the United States, where they were extensively analyzed and reported by R. Corruccini and his students throughout the 1980s. These early studies contributed to the emergence of plantation archaeology and African bioarchaeology, though the 1970s excavations did not provide sufficient data for exploring many questions pertaining to systemic health. With the support of the Barbados Museum, subsequent excavations in 1997-1998 has ushered in a new generation of collaborative scholarship on the history of health and identities on Barbados. Previous and ongoing bioarchaeological research at Newton Plantation spans several key areas of inquiry that are summarized in the following sections: (1) paleodemography, (2) nutrition (3) infectious disease, (4) labor, and (6) identities, migration, and cultural practice.

## Paleodemography

Archival data show that Barbados experienced significant demographic shifts as nearly 45,000 African individuals were forcibly brought to the colony by the 1670s (Kiple and Higgins 1992). Imports tapered off during the late seventeenth century and into the eighteenth century primarily due to increased sugar production on other British islands but did not halt until the end of the legalized slave trade in 1807. High mortality and low birth rates did not begin to improve until the late-eighteenth century, with legislative efforts to 'ameliorate' conditions of British slavery (Newman 2013; Sheridan 1985). Higman (1984) demonstrated historically very low fertility for the Caribbean (including Barbados) and low fertility at Newton has been documented ethnohistorically and skeletally (Corruccini *et al.* 1982; Corruccini *et al.* 1989; Handler and Corruccini 1983; Shuler 2005a, 2011). At Newton Plantation, average life expectancy at birth has been documented archivally to have been approximately 20 years of age, and high infant mortality and a crude birth rate at .0370 is too low to have sustained natural population growth (Corruccini *et al.* 1989; Shuler 2011: 74). Comparisons of age at death and life expectancy between the Newton cemetery and sites with colonial and historic Africans and descendant groups in the U.S. generally concur with archival data to show that individuals on the Newton Plantation died at relatively younger ages (cf. Shuler 2005a; 2011). Moreover, the osteological remains from Newton indicate a bias toward adult males, with infants and young children considerably under-represented (Corruccini *et al.* 1989; Shuler 2005a; 2011). Though underrepresentation of ages 5-15 emphasizes problematic use of cemeteries for life tables and estimation of fertility, it is expected that few infants and youths would have been sought as labor and/or transported or survived the Middle Passage (Shuler 2011: 74) unlike other age categories, regardless of death rate. Thus, the pattern at Newton suggests a highly unstable demographic profile (Shuler 2011: 74). Differential burial practices may be partially responsible (Handler and Lange 1978) but, more likely, was the result of extremely high in-migration, with low fertility culminating from poor/inadequate nutrition, high pathogen load, environmental toxins (e.g.: lead), and devastating physical and psychosocial stresses (Handler 2006a; 2006b; Shuler 2005a; 2011).

## Nutrition

Increased sugar production during the colonial period, along with in-migration and rapid population growth, resulted in decreased available lands for plantation laborers to produce food and other essential resources. This was especially true during the early days of sugar production when food provisions were scarce, as planters utilized all available lands for the production of cane. Poorly fed, hungry, and undernourished enslaved laborers are well documented historically on sugar producing islands such as Barbados. In addition to general malnutrition, enslaved populations suffered a variety of vitamin/mineral deficiency diseases (Kiple 1984; Sheridan 1985). Archaeological evidence of dental health at Newton generally concurs with these expectations. Evidence of excessive deposits of dental cementum (89.4%) on most tooth roots is associated with high rates of periodontal disease and suggests episodic starvation (Corruccini *et al.* 1987a), which appears to have been age progressive and with less severity in women than in men based on a subsample studied in the 1990s (Shuler 2005b). Historically,

men were subjected to great nutritional stress working in the 'Great Gang' and were disadvantaged calorically, expending greater energy for work effort than received from the sparse diet of sorghum and salt fish (Kiple 1984). Handler and Corruccini (1986) state that lactating women may have been given incentives but, in general, women (like children) were not given preferential access to foods over primary field workers; adult males generally received the most food. Moderate rates of clearly palpable growth arrest lines in the dentition were highly consistent across studies of various groups from the Newton Plantation site (20% Corruccini *et al.* 1985; 19% Ritter 1991; and 17% Shuler 2005b). Metabolic skeletal diseases were rarely observed from Newton Plantation. Only one case of rickets (vitamin D deficiency) was observed and, unlike many colonial skeletal populations, typical evidence of anemias is absent (vault lesions) or low (orbital lesions 13%).

However, for individuals showing these lesions, the rate is similar in adult males (17%) and females (18%). Such lesions have been commonly linked in the literature to inadequate dietary iron (Stuart-Macadam 1987) but more recently attributed to insufficient B12 and inadequate sanitation (Walker *et al.* 2009). Handler and Corruccini (1983; also, Handler 2006b: 85) suggest that the practice of 'pica' (intentional soil consumption) may have provided sufficient iron and minerals, yet soils contaminated with hookworm and other parasites could have caused, rather than prevented, anemia (Layrisse and Roche 1964). A common source of dietary iron and calcium would have been black strap molasses made from a third boiling of cane (Shuler 2005b). Lentils, pigeon peas, and cookware provided other sources of iron (Kiple 1984), while fish, seafood, and salted meats contributed protein and B12. Together, this could account for the lower than expected rates of vault and orbital lesions. Nutritional data at Newton are supplemented by measures of adult height where preservation allowed. Mean (corrected) stature estimates are reported for nine individuals with an average height in females of 159.3 cm (s.d.1.06) and males of 169.73 cm (s.d. 4.61), which falls within the Barbadian historically documented range for the colonial creole population (cf. Shuler 2005b). Skeletal heights of international comparative samples conform to the well-documented pattern of highest stress among Caribbean populations, due to poor treatment and lack of access to resources (Shuler 2005a; 2005b; 2011).

### **Infectious Disease**

Skeletal and dental lesions due to infection typically involve complex physiological processes that result from chronic stress. Multiple health stressors can co-occur simultaneously, with patterns of lesions (form, distribution and severity) throughout the body offering clues for differential diagnoses of various disease processes. Dental caries (cavities) are a commonly-occurring infectious disease that is initiated by microbial activity and acid secretion on the surface of the tooth, which progressively destroys the tooth structure (Ortner 2003). Diets containing large amounts of sugars, specifically sticky carbohydrates (Hillson 1979; 1986; 1996), tend to result in high rates of caries, particularly on the chewing surface of the teeth where foods become trapped in fissures. Dental decay (cavities, abscesses, and tooth loss) was ubiquitous at Newton Plantation. Corruccini *et al.* (1982), Handler (2006b), and Handler and Corruccini (1983), report that 20% (n=19/94) of individuals affected

by caries (cavities) of the chewing surface, while 57.4% (n=54/94) of individuals displayed caries between the teeth.

A study of another subsample by Shuler (2005b) showed that 75% of individuals were affected with adults displaying more episodes of dental decay and an expected age-progressive pattern. Most cavities were typically mild, however, and the rate per mouth was fairly low (mean=1.09 per mouth). Both males and females expressed fairly even rates (1.7 and 1.8, respectively), but men display severe caries and more often than women. Furthermore, antemortem tooth loss is high (7.35; s.d. 6.79) for both females (7.17; s.d. 9.24) and males (8.8; s.d. 6.2), supporting high rates (51%) of dental loss reported from the initial sample from the site (Corruccini *et al.* 1982: 451; Shuler 2005a; 2005b). According to Handler (2006b: 190; Handler and Corruccini 1983), this evidence of high and nonrandom tooth loss at Newton (often seen in molars and bilaterally) suggests that dentistry relieved some of the dental maladies, though to our knowledge this has not been revealed in the ethnohistoric accounts from the site.

Infectious diseases including small pox, cholera, yellow fever, yaws, tetanus, leprosy, syphilis, and tuberculosis have been reported for the slave period in the West Indies, including Barbados (Alden and Miller 1988; Handler 2006a; Handler and Corruccini 1983; Higman 1984; Kiple 1984; 1985; Kiple and Higgins 1992; Savitt 1978; Sheridan 1985). Though we did not find direct evidence in the skeleton for most of these types of infection, Jacobi *et al.* (1992) identified three individuals from the Newton site with dental stigmata indicating congenital syphilis. While venereal disease is not well documented archivally in Barbados or the Caribbean (Handler 2006a: 12-13), the projected rate of 10% from the skeletons at the site is comparable to that reported for the Freedman Cemetery in Dallas (Condon *et al.* 1996). Enslaved Africans at the cotton plantation of Waterloo in Suriname displayed high rates of treponemal infection, with 26% affected. Of individuals with treponemas, 56% of cases are congenital. Blakey and Rankin-Hill (2004) report rates at the ABG of approximately 16%, observed in individuals over age 15, with more males than females affected. They argue that the occurrence of saber shins without stellate scars in this sample suggest yaws, but that congenital syphilis was also observed. Congenital syphilis in enslaved populations was related to venereal infection in mothers, and Blakey and Rankin-Hill (2004: 86) argue that sexual abuse and concubinage of domestic servants by white owners as well as sexual practices among the enslaved may have served to spread venereal syphilis quickly, especially in the Caribbean.

Periosteal reaction, which is indicative of generalized infection and bone inflammation, occurred in many individuals at the Newton Plantation site (41%; n=49 individuals), primarily affecting the lower limbs (tibiae and femora) and with males displaying more frequent lesions with greater severity than observed in females or adolescents (Shuler 2011). Through direct comparisons of generalized inflammatory responses is not possible due to methodological variability, the overall rates from Newton are lower than from the African Burial Ground in New York, where 55.9% of individuals were affected, including many adults and subadults (Null *et al.* 2004), and comparable rates of infection were reported for sharecroppers who lived at Cedar Grove in Arkansas (Rose 1985). Rural African laborers at one rice plantation in South Carolina (Remley) showed an even higher prevalence of 69% (Rathbun and Steckel 2002). Females from

the African Burial Ground and Cedar Gove cemetery display high rates of infection at 71% in comparison to the Newton sample.

Nevertheless, Shuler (2011) argues that enslaved laborers from the Newton Plantation would have been particularly vulnerable to stress as indicated both by historic reporting of infectious illness and low relative mean age at death for all. While it may seem surprising that many documented chronic diseases, such as tuberculosis and leprosy, were not clearly evident skeletally at Newton, bony involvement is generally fewer than 5% of cases in clinical literature (Shuler 2005a; 2005b; 2011). Thus, under extremely adverse living conditions, it is reasonable to assume that individuals would have succumbed to acute stressors before such diseases would have manifest in the skeleton (Shuler 2011). The pattern of high mortality (especially for females), low relative stature, and frequent bouts of generalized infection and growth arrest early in life attests to overall challenges faced by the enslaved community who were living on this sugar plantation (Shuler 2011: 78).

## **Labor**

Sugar plantations like Newton were particularly labor intensive year-round since laborers were planting, harvesting and processing cane and byproducts (Handler and Lange 1978; Mintz 1985). Laborers in fields and factories were subject to many dangers and accidental injuries; deaths probably occurred even more frequently when individuals were overworked, undernourished, or working in high heat and humidity, all of which may have diminished the ability to focus (cf. Handler 2006b). At Newton, the skeletal infections noted previous were often minor but ubiquitous, particularly occurring as localized lower limbs inflammation on the anterior tibiae or shin. Such lesions would be quite consistent with frequent field injuries experienced during planting and harvesting. Gross evidence of traumatic injury, however, is surprisingly rare at Newton compared to urban enslaved laborers at American sites such as the African Burial Ground and Catoctin Iron Works (Wilczak *et al.* 2004). At Newton, a fracture is evident in the left ulna of one adult male (NP-47) and in two adult females, one of whom showed malalignment of the healed bone. Ongoing investigations by a Ph.D. candidate seek to better understand underlying questions of trauma at Newton (e.g.: healing may be evident through X-rays).

Evidence of pulling and tearing of muscle attachments were very common at Newton, occurring in 76% of adults. Among adults, upper limbs exhibited more cresting and tearing of bone than did the lower limbs, but most bodies showed signs of heavy stress. Herniations of vertebral bodies were less common than muscle damage among individuals from Newton, but they still occur with fairly high frequency in 25% of adults (Shuler 2005a: 248-302). One adult male (NP-22) displayed an enlarged lesion of the anterior tibia with associated periosteal inflammation of the surrounding bones that probably resulted from traumatic injury to the periosteum of the bone, though surprisingly he had no evidence of an associated fracture (Shuler 2011). It is difficult to discern if such trauma resulted from intensive physical labor, or perhaps from interpersonal violence and/or physical abuse. Men and women living on plantations were affected by labor and the life stresses of enslavement in varying ways,

but women at Newton appear to have experienced slightly more stress in terms of decreased longevity and activity-related effects to the body (Shuler 2005a: 320; 2011).

Stevens (2016) recently investigated historical conceptions about the nature of enslaved labor by quantifying and comparing the physical demands of labor between Newton sugar plantation and Hagley Plantation, a South Carolina rice plantation, using biomechanical properties derived from CT images of long bones from both samples. The study employed established cross-sectional geometric (CSG) measures of relative bone strength which have been used by other researchers to compare the lifestyle and habitual behavior of past populations based on the response of the human skeleton to stress and load-bearing (Carlson *et al.* 2007; Larsen 2002; Ogilvie and Hilton 2011; Ruff 1992; Shackelford 2007; Sladek *et al.* 2006). Historical accounts suggest that sugar production gang labor was among the most severe regimes of slavery, placing extreme demands upon the enslaved, under some of the most deprived environmental, biological, and social conditions: an economy in which slaves were ‘worked to death’ (Dunn 1973; Fogel 1989; Higman 1979; Mintz 1985). Historians have viewed rice production by ‘task’ labor within the South Carolina lowcountry as a more benign system that afforded considerably more autonomy and better lifestyle to the enslaved (Fogel 1989; Joyner 1984; Morgan 1982). The herculean toil of rice plantation labor and its biological consequences have only more recently been appreciated (Carney 1996; Dusi 2000; Young 1993).

Comparison of bone strength between these two populations faced challenges due to preservation and completeness of the skeletal remains, but CSG measures such as cortical area (CA) of the bone, bending rigidity ( $I$ ), and torsional strength ( $J$ ) were informative, especially between the male portions of each sample. Relative bone strength measures for the upper limbs for the sugar laborers of Newton Plantation exceeded those of the rice workers on average, supporting historical evidence for the role of planter selection of enslaved laborers by body type and the intense physical demands of sugar production. For the femur, greater relative strength measures among the rice workers compared to Newton’s sample, suggested possible increased bone strength brought on by the demands of aquaculture (rice labor in flooded fields and work on embankments) compared to the lower limb strength requirements for terrestrial labor. CSG measures for the tibia, often used to assess degree of mobility, however, demonstrated greater strength measures and elongation in the anterior-posterior plane among Newton Plantation’s workers compared to those of Hagley Plantation, suggesting possible bone response to the effects of more varied terrain, increased mobility, or load-carrying.

## **Identities, migration, and cultural practice**

The Newton Plantation cemetery was both unmarked and undocumented archivally. Thus, the earliest information on the identities of the deceased was based on documented practices related to positioning of the body and associations with material culture (Handler and Lange 1978). Handler *et al.* (1982) examined the remains for evidence of intentional dental modification (filing and chipping) as evidence of the retention of African cultural practices. Five of the Newton deceased individuals had dental modification – more than all previously studied Caribbean sites combined.

Handler and coworkers did not suggest that this was practiced in Barbados, but rather that such dental changes were likely performed in Africa (cf. Schroeder *et al.* 2014). In addition to the intentional dental filing at Newton (n=5/55; 9% reported by Handler *et al.* 1982), pipe wear on occlusal tooth surfaces was commonly observed at Newton (Corruccini *et al.* 1982; Handler *et al.* 1982; Handler and Lange 1978; Shuler 2005a). Both males and females frequently smoked pipes, which were given as rewards (Handler and Corruccini 1983). Corruccini *et al.* (1987b) identified a unique suite of traits including co-occurrence of dental modification, low skeletal lead content, slight hypercementosis (relative to age), east and north-headed burial orientation, and absence of coffins, which they argued were indicative of African rather than creole origins (Corruccini *et al.* 1987b; also see Schroeder *et al.* 2009).

Recent approaches to identity in archaeology have shifted away from a focus on the retention of African cultural traits to explore complex biocultural patterns that include evidence of genetic signatures, isotopes, and other biomarkers. Such data offer new perspectives on identities and birthplace for the individuals who lived at Newton. Genetic distance has been assessed in the 1990s-excavated collection through studies focused on dental non-metric traits, odontometrics, and osteometrics. Munson (2012) examined degree of genetic population admixture based on maximum mesiodistal and buccolingual tooth measurements and compared Newton individuals to 19 other skeletal groups of African, European, African American, and European American descent that date from the time of British colonization to the twentieth century. Comparative samples included African populations from North America, North American Colonial Europeans, and seventeenth-nineteenth-century English populations as well as more modern urban North American African American and European American populations in order to compare the Newton odontometrics to ancestral populations through time. European admixture estimations in studies by Corruccini *et al.* (1982) and Ritter (1991) were 5-10%. Munson reports similar rates (5.38-10.25%), suggesting that low genetic admixture.

The most comprehensive and sophisticated analyses of geographical origins, identities, and health at Newton have employed isotopic approaches. Schroeder and colleagues (2009) assessed carbon and nitrogen ratios from collagen in bone and dentin and oxygen and strontium ratios from enamel, which provided clear signatures for Afro-Barbadian (n=18) and African (n=7) born individuals to suggest that the majority of individuals from the site were born on the island, perhaps on the Newton Plantation. Archival evidence supports reduced life expectancy and lower reproductive rates with an enslaved population maintained through new imports from Africa (Corruccini *et al.* 1982; Shuler 2011). Based on the isotopic data, nearly 30% (7/24) of the individuals sampled from Newton were African-born. Although we might expect to find more first-generation/African-born individuals in the cemetery, it is important to note that cemeteries, particularly in archaeological contexts, are not a representative cross-section of a living population. The oxygen and strontium ratios in seven individuals are more consistent with expectations for first generation captive individuals who were brought from West Africa, which is further supported by marked variation between their teeth and bones for carbon and nitrogen stable isotope values that probably reflect changes in diet associated with enslavement and the forced migration from Africa to Barbados. While the isotope data do not allow specific origins to be determined, they do suggest

that the African-born individuals originated from at least three different areas in Africa, possibly including the Gold Coast and Senegambia regions.

Bone chemistry in conjunction with historical research on the Newton Plantation also revealed an epidemic of lead poisoning that impacted large parts of the island's population (Corruccini *et al.* 1987b; Handler *et al.* 1986). Average skeletal lead content ( $n=48$ ; 117.6 +/- 94.9 ppm or  $\mu\text{g}$  lead/g bone ash) was nearly four times greater in Newton skeletal remains than reported for colonial African-American skeletons (Aufderheide *et al.* 1985; Corruccini *et al.* 1987a; Handler 2006b; Handler *et al.* 1986). Rum was arguably the most available source of lead to the island's enslaved (Handler 2006b; Handler *et al.* 1986). Corruccini *et al.* (1987b) further reported lower rates (44.7 ppm) for individuals displaying dental modifications than those without intentional modification (126.2 ppm) (Corruccini *et al.* 1987b; Handler *et al.* 1982; 1986). Schroeder and colleagues (2013) argue that chronic lead accumulation at Newton began at, and even before, birth as evidenced through elevated dental enamel lead values in only Barbadian-born individuals. Skeletons excavated in 1997-1998 ( $n=45$ ) were recently examined by Shuler and Schroeder (2013) for any congenital anomalies, with clinical/experimental descriptions used to diagnose possible Alcohol Related Birth Defects (ARBD). Enamel lead data served as a proxy for developmental exposure to tainted-rum in a subsample ( $n=26$ ). Elevated enamel lead (3.8  $\mu\text{g/g}$ ), vertebral synostosis, and micrognathism in one subadult fit the expectations for exposure. An adult male with low enamel lead (0.3  $\mu\text{g/g}$ ) had congenital anomalies, but not those described with ethanol or lead exposures. Although ARBD were not common skeletally, such patterns as timing of exposures and colonial medical practices (e.g.: hot/cold humoral medicine and documented post-partum consumption of tainted-rum, which would have exposed infants to ethanol and lead through lactation) may have affected skeletal patterns. Such studies at Newton have not only shed light on undocumented and under-documented aspects of the lives of enslaved sugar producers but allow us to begin exploring the ways in which ancient health can reveal insight into the long-standing effects of alcohol use.

## Current and Future Directions

As this brief overview of the published bioarchaeological studies and theses on Newton Plantation demonstrates, multidisciplinary approaches are essential to unraveling the complexities of identity and health over time. Skeletal data from Newton support archival accounts of high lifetime stress for colonial sugar producers and provide additional information that was previously unknown, including evidence of biological relationships, birthplace, childhood and maternal health, and lifetime activities (e.g.: pipe use, filing, dentistry, and work-related stress). By continuing to combine these data with broader archaeological, archival and contemporary public health data, we can gain a better understanding of complex social identities, population health, and labor throughout the Caribbean and Americas.

Ongoing projects at Auburn University are currently trying to reconstruct the relationships between unassociated skeletal elements that were recovered from the site using traditional approaches and new techniques. Recent studies have demonstrated the utility of such technology as portable X-ray fluorescence analysis as a method



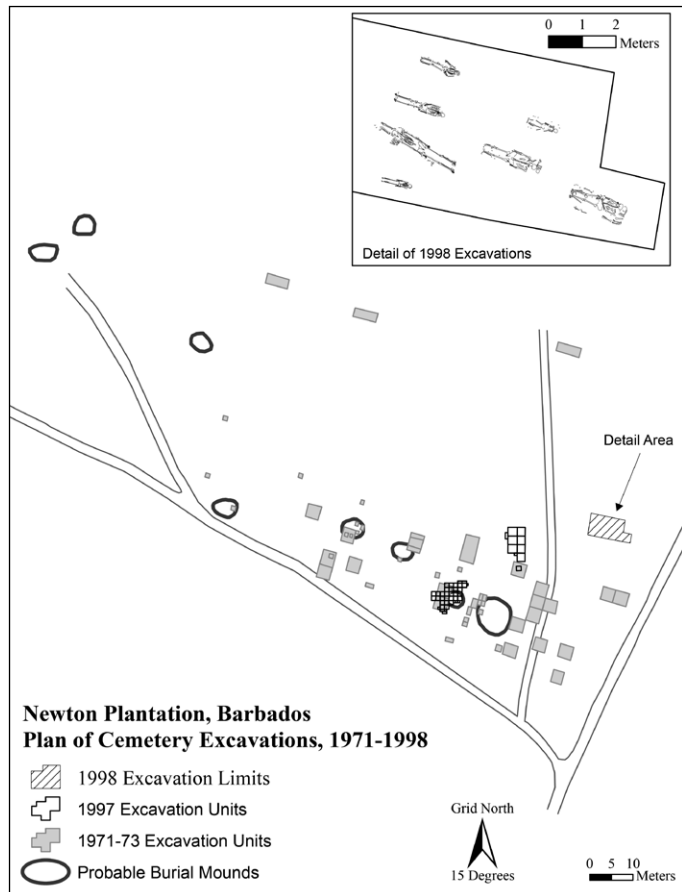


Figure 12.2. Map showing the location of excavation areas at Newton Plantation.

for sorting commingled osteological assemblages (Gonzales-Rodriguez and Fowler 2013; Perrone *et al.* 2014). This equipment provides a non-destructive means of determining chemical composition of materials and, when applied to human bone, can potentially aid reassociation of isolated and commingled remains based on the detection of individual differences in elemental content of the bone. A multiple method approach to sorting mixed human remains including elemental analysis by pXRF, developed by Stevens (2016), was used on Hagley Plantation remains from South Carolina in order to permit comparative study with Newton's remains. Our goal is to apply these methods to the unassociated portion of Newton's skeletal remains with the hope of increasing their interpretive potential via increased sample size and more complete individuals.

A comprehensive visual database that combines biological and archaeological information from Newton is combined through ESRI's ArcGIS software to gain better insight into overall patterns from the cemetery (Figure 12.2). To date, this has facilitated probable realignment of seven individuals originally excavated in 1971-1973, and some preliminary health patterns across the site. For example, congenital traits identified by Shuler and Schroeder (2013) occur only in the 1998-excavated interments from the northeastern region of the site (Figure 12.2). Comparing isotopic data on origins from Schroeder *et al.* (2009), we observed no significant differences by lo-

cation within the cemetery, isotopic signatures of birthplace, hypercementosis relative to age, infection, or coffin hardware as argued by Corruccini *et al.* (1987a: 183). Yet, Barbadian-born individuals from the 1997 non-mound excavations displayed higher infection and, unlike African-born individuals, a higher prevalence of bone lesions that were active (indicating healing) at the time of death. The fact that many health indicators occur in individuals throughout the cemetery attests to the severely oppressive and stressful lives experienced by this population in general. Labor roles and markers of identity are currently being explored through assessment 3D technologies (Next Engine 3D scanner and a Makerbot 3D printer) and compared within the site (e.g.: by birthplace, location within the cemetery, and other markers of social status and identities) and with other colonial populations in the Caribbean (e.g.: the 16<sup>th</sup>-century Maya from the site of Tipu in west-central Belize). Other studies have the potential to provide information on identities and site use over time (e.g.: fluorine dating, lead isotope studies, and ancient DNA analyses).

### Acknowledgements

We extend our most sincere gratitude to the editors for the invitation to participate in this volume. The Barbados Museum and staff has been tremendous in their support and assistance over the years and for that we are thankful. We wish to extend our particular appreciation to Kevin Farmer and Alissandra Cummins of the Barbados Museum. We would also like to thank Robert Corruccini for his support over the years, and Karl Watson and his students from the Cave Hill Campus of The University of the West Indies for their assistance during excavations. Funding for the 1997 excavation was provided to Kristrina Shuler (Herndon) and Robert Corruccini via National Science Foundation Dissertation Improvement Grant SBR-96-22706. Robert Riordon graciously provided field notes and maps from the 1970s excavations. We gratefully extend thanks to Simon Chenery and Jane Evans at the British Geological Survey, Keyworth, UK for their work on elemental analyses.

### References

- Alden D. and J. Miller.  
1988 Unwanted cargoes: The origins and dissemination of smallpox via the slave trade from Africa to Brazil. In *The African Exchange: toward a biological history of black people*, edited by K. Kiple. pp. 35-109. Duke University Press, Durham.
- Aufderheide, A., J. Angel, J. Kelley, A. Outlaw, M. Outlaw, G Rapp, and L. Wittmers.  
1985 Lead in bone III: Prediction to social correlates from skeletal lead content in four colonial American populations. *American Journal of Physical Anthropology* 66: 353-361.
- Aufderheide, A. and C. Rodriguez-Martin.  
1998 *The Cambridge Encyclopedia of Human Paleopathology*. Cambridge University Press, Cambridge.

- Blakey, M. and L. Rankin-Hill.  
2004 *Skeletal Biology Final Report to GSA. Volume I*. Howard University, Washington DC.
- Buikstra, J.  
1977 Biocultural dimensions of archaeological study: a regional perspective. In *Biocultural Adaptation in Prehistoric America*, edited by R. Blakey, pp. 67-84. University of Georgia Press, Athens.
- Buikstra, J. and L. Beck.  
2006 *Bioarchaeology: The Contextual Study of Human Remains*. Academic Press, London.
- Carlson, K., F. Grine and O. Pearson.  
2007 Robusticity and sexual dimorphism in the postcranium of modern hunter-gatherers from Australia. *American Journal of Physical Anthropology* 134: 9-23.
- Carney, J.  
1996 Landscapes of technology transfer: Rice cultivation and African continuities. *Technology and Culture* 37: 5-35.
- Condon, K., C. Condon, M. Gutmann, J. Rose, and M. Haines.  
1996 Diet and health on the U.S. Western frontier. Unpublished Paper presented at the Second conference on a history of health and nutrition in the Western Hemisphere, Columbus, Ohio.
- Corruccini, R., A. Aufderheide, J. Handler, and L. Wittmers.  
1987b Patterning of skeletal lead content in Barbados slaves. *Archaeometry* 29: 233-239.
- Corruccini, R., E. Brandon, and J. Handler.  
1989 Inferring fertility from relative mortality in historically controlled cemetery remains from Barbados. *American Antiquity* 54: 609-614.
- Corruccini, R., J. Handler, and K. Jacobi.  
1985 Chronological distribution of enamel hypoplasias and weaning in a Caribbean slave population. *Human Biology* 57: 699-711.
- Corruccini, R., J. Handler, R. Mutaw, and F. Lange.  
1982 Osteology of a slave burial population from Barbados, West Indies. *American Journal of Physical Anthropology* 59: 443-459.
- Corruccini, R., K. Jacobi, J. Handler, and A. Aufderheide.  
1987a Implications of tooth root hypercementosis in a Barbados slave skeletal collection. *American Journal of Physical Anthropology* 74: 179-184.
- Dunn, R.  
1973 *Sugar and Slaves: The rise of the planter class in the English West Indies, 1624-1713*. W.W. Norton, New York.
- Dusinberre, W.  
2000 *Them Dark Days: Slavery in the American Rice Swamps*. Oxford University Press, Oxford.

- Eltis, D.  
 1982 Nutritional trends in Africa and the Americas: Heights of Africans, 1819-1839. *Journal of Interdisciplinary History* 12: 453-475.  
 2000 *The Rise of African Slavery in the Americas*. Cambridge: Cambridge University Press.
- Fogel, R.  
 1989 *Without Consent or Contract*. W.W. Norton, New York.
- Gonzales-Rodriguez, J. and G. Fowler.  
 2013 A study on the discrimination of human skeletons using X-ray fluorescence and chemometric tools in chemical anthropology. *Forensic Science International* 231/407: e1-e6.
- Handler, J.  
 2006a Diseases and medical disabilities of enslaved Barbadians from the seventeenth century to around 1838: Part 1. *Journal of Caribbean History* 40/1: 1-38.  
 2006b Diseases and medical disabilities of enslaved Barbadians from the seventeenth century to around 1838: Part 2. *Journal of Caribbean History* 40/2: 177-214.
- Handler, J., A. Aufderheide, R. Corruccini, E. Brandon, and L. Wittmers.  
 1986 Lead contact and poisoning in Barbados slaves: Historical, chemical, and biological evidence. *Social Science and History* 10: 399-426.
- Handler, J., M. Conner and K. Jacobi.  
 1989 *Searching for a slave cemetery in Barbados, West Indies: A bioarchaeological and ethnohistorical investigation*. Southern Illinois University Center for Archaeological Investigation, Carbondale.
- Handler, J. and R. Corruccini.  
 1983 Plantation slave life in Barbados: A physical anthropological analysis. *Journal of Interdisciplinary History* 14: 65-90.  
 1986 Weaning among West Indian slaves: historical and bioanthropological evidence from Barbados. *William and Mary Quarterly* 43: 111-117.
- Handler, J., R. Corruccini, and R. Mutaw.  
 1982 Tooth mutilation in the Caribbean: Evidence from a slave burial population in Barbados. *Journal of Human Evolution* 11: 297-313.
- Handler, J. and F. Lange.  
 1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*, Harvard University Press, Cambridge.
- Higman, B.  
 1979 Growth in Afro-Caribbean slave populations. *American Journal of Physical Anthropology* 50: 373-386.  
 1984 *Slave populations of the British Caribbean, 1807-1834*. Johns Hopkins University Press, Baltimore.

- Hillson, S.  
 1979 Diet and dental disease. *World Archaeology* 11: 147-162.  
 1986 *Teeth*. Cambridge University Press, Cambridge.  
 1996 *Dental Anthropology*. Cambridge University Press, Cambridge.
- Jacobi, K., D. Cook, R. Corruccini and J. Handler.  
 1992 Congenital syphilis in the past: Slaves at Newton Plantation, Barbados, West Indies. *American Journal of Physical Anthropology* 89: 145-158.
- Joyner, C.  
 1984 *Down by the Riverside: A South Carolina Slave Community*. University of Illinois Press, Chicago.
- Kiple, K.  
 1984 *The Caribbean slave: A biological history*. Cambridge University Press, Cambridge.  
 1985 Cholera and race in the Caribbean. *Journal of Latin American Studies* 17: 157-177.
- Kiple, K. and B. Higgins.  
 1992 Yellow Fever and the Africanization of the Caribbean. In *Demography and Disease in the Americas*, edited by J. Verano and D. Ubelaker, pp. 237-248. Smithsonian Institution Press, Washington.
- Larsen, C.  
 2002 Bioarchaeology: The lives and lifestyles of past people. *Journal of Archaeological Research* 10: 119-166.
- Layrisse, M. and M. Roche.  
 1964 The relationship between anemia and hookworm infection. *American Journal of Hygiene* 79: 279-301.
- Martin, D., R. Harrod and V. Pérez.  
 2012 *The Bioarchaeology of Violence*. University Press of Florida, Gainesville.
- Mintz, S.  
 1985 *Sweetness and Power: The Place of Sugar in Modern History*. Viking Press, New York.
- Morgan, P.  
 1982 Work and culture: The task system and the world of Lowcountry blacks, 1700 to 1880. *William and Mary Quarterly* 39: 563-599.
- Munson, S.  
 2012 Genetic Admixture and Tooth Size in an Enslaved Population from Newton Plantation, Barbados. Unpublished Master's Thesis, Southern Illinois University Carbondale.
- Newman, S.  
 2013 *A New World of Labor: The Development of Plantation Slavery in the British Atlantic*, University of Pennsylvania Press, Philadelphia.

- Null, C., M. Blakey, K. Shujaa, L. Rankin-Hill and S. Carrington.  
 2004 Osteological indicators of infectious disease and nutritional inadequacy. In *Skeletal Biology Final Report to GSA*, Vol. I, edited by M.L. Blakey and L.M. Rankin-Hill, pp. 351-402. Howard University, Washington DC.
- Ogilvie, M. and C. Hilton.  
 2011 Cross-sectional geometry in the humeri of foragers and farmers from the pre-Hispanic American southwest: Exploring patterns in the sexual division of labor. *American Journal of Physical Anthropology* 144: 11-21.
- Ortner, D.  
 2003 *Identification of Pathological Conditions in Human Skeletal Remains*. 2nd edition. Smithsonian Institution Press, Washington, DC.
- Perrone, A., J. Finlayson, E. Bartelink, and K. Dalton.  
 2014 Application of portable X-ray fluorescence (XRF) for sorting commingled human remains. In *Commingled Human Remains: Methods in Recovery, Analysis, and Identification*, edited by B.J. Adams and J.E. Byrd, pp. 145-165. Academic Press, New York.
- Postell, W.  
 1951 *The Health of Slaves on Southern Plantations*. Louisiana State University Press, Baton Rouge.
- Rathbun, T. and R. Steckel.  
 2002 The health of slaves and free blacks in the east. In *The Backbone of History: Health and Nutrition in the Western Hemisphere*, edited by R. Steckel and J. Rose, pp. 208-225. Cambridge University Press, Cambridge.
- Ritter, E.  
 1991 Dental developmental disruption and aspects of Afro-American biohistory. Unpublished Ph.D. Dissertation, Department of Anthropology, Southern Illinois University, Carbondale.
- Rose, J.  
 1985 *Gone to a Better Land: A biohistory of a rural black cemetery in the post-reconstruction south*. Arkansas Archaeological Survey Research Series No. 25, Fayetteville.
- Ruff, C.  
 1992 *Biomechanical Analyses of Archaeological Human Skeletal Samples*. Wiley-Liss, New York.
- Savitt, T.  
 1978 *Medicine and slavery: the diseases and health care of blacks in antebellum Virginia*. University of Illinois Press, Urbana.
- Schroeder, H., J. Evans, T. O'Connell, K. Shuler, and R. Hedges.  
 2009 Trans-Atlantic slavery: Isotopic evidence for forced migration to Barbados. *American Journal of Physical Anthropology* 139: 547-557.

- Schroeder, H., J. Haviser, and T. Price.  
 2014 The Zoutsteeg Three: Three new cases of African types of dental modification from Saint Martin, Dutch Caribbean. *International Journal of Osteoarchaeology* 24: 688-696.
- Schroeder, H., K. Shuler, and S. Chenery.  
 2013 Childhood lead exposure in an enslaved African community in Barbados: Implications for birthplace and health status. *American Journal of Physical Anthropology* 150: 203-209.
- Shackelford, L.  
 2007 Regional variation in the postcranial robusticity of Late Upper Paleolithic humans. *American Journal of Physical Anthropology* 133: 655-668.
- Sheridan, R.  
 1985 *Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680-1834*. Cambridge University Press, Cambridge.
- Shuler, K.  
 2005a Health, History, and Sugar: A Bioarchaeological Study of Enslaved Africans from Newton Plantation, Barbados, West Indies. Unpublished Ph.D. Dissertation, Department of Anthropology, Southern Illinois University Carbondale.  
 2005b Nutritional health of enslaved Africans from Newton Plantation, Barbados: New data. *Journal of the Barbados Museum and Historical Society* 51: 166-186.  
 2011 Life and death on a Barbadian sugar plantation: Historic and bioarchaeological views of infection and mortality at Newton Plantation. *International Journal of Osteoarchaeology* 21: 66-81
- Shuler, K. and H. Schroeder.  
 2013 Evaluating alcohol related birth defects in the past: skeletal and biochemical evidence from a colonial rum producing community in Barbados, West Indies. *International Journal of Paleopathology* 3: 235-242.
- Sladek, V., M. Berner, and R. Sailer.  
 2006 Mobility in central European Late Eneolithic and Early Bronze Age: Tibial cross-sectional geometry. *Journal of Archaeological Science* 33: 470-482.
- Steckel, R.  
 1986 A peculiar population: the nutrition, health and mortality of American slaves from childhood to maturity. *The Journal of Economic History* 46: 721-741.  
 1988 The health and mortality of women and children, 1850-1860. *The Journal of Economic History* 48/2: 333-345.  
 1994 Heights and health in the United States, 1710-1950. In *Stature, Living Standards, and Economic Development: Essays in Anthropometric History*, edited by J. Komlos, pp. 153-170. University of Chicago Press, Chicago.
- Steckel, R. and R. Jensen.  
 1986 New evidence on the causes of slave and crew mortality in the Atlantic slave trade. *The Journal of Economic History* 46/1: 57-77.

Stevens, W.

2016 Enslaved Labor in the Gang and Task Systems: A case study in comparative bioarchaeology of commingled remains. Unpublished Ph.D. Dissertation, University of South Carolina, Columbia.

Stuart-Macadam, P.

1987 Porotic hyperostosis: new evidence to support the anemia theory. *American Journal of Physical Anthropology* 74: 521-526.

Tiesler, V., P. Zabala, and A. Cucina.

2010 *Natives, Europeans, and Africans in Colonial Campeche: History and Archaeology*. University Press of Florida, Gainesville.

Ubelaker, D.

1995 Historic cemetery analysis: practical considerations. In *Bodies of Evidence: Reconstructing History through Skeletal Analysis*, edited by A.L. Grauer, pp. 37-48. Wiley-Liss, New York.

Walker, P., R. Bathurst, R. Richman, T. Gjerdrum, and V. Andrushko.

2009 The causes of porotic hyperostosis and cribra orbitalia: A reappraisal of the iron-deficiency-anemia hypothesis. *American Journal of Physical Anthropology* 139: 109-125.

Wilczak, C., R. Watkins, C. Null, and M. Blakey.

2004 Skeletal indicators of work: musculoskeletal, arthritic and traumatic. In *Skeletal Biology Final Report to GSA*. Volume I, edited by M.L. Blakey and L.M. Rankin-Hill, pp. 403-460. Howard University, Washington DC.

Wood, J., G. Milner, H. Harpending, and K. Weiss.

1992 The osteological paradox. *Current Anthropology* 33: 343-370.

Young, A.

1993 Slave Subsistence at the Upper South Mabry Site, East Tennessee: Regional Variability in Plantation Diet of the Southeastern United States. Unpublished Master's Thesis, University of Tennessee.



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## Are they Barbadian?

### Inferring Identity and Ethnic Affiliation for the Pierhead and Fontabelle Burial Grounds: the Bioarchaeological and Biohistorical Evidence

*Christopher Crain & Kevin Farmer*

#### **Abstract**

The determination of the social identity or ethnic identity of an archaeological population is a difficult one. While it is possible to identify a population's ancestral affiliation from discrete traits that one can observe among its member's skeletal remains, ethnicity, because of its socio-cultural and historical nature, is much more difficult. It requires the combination of biological, archaeological, and historical evidence to accomplish such a task. In the case of historically marginalized populations, such a process becomes even more important. The human skeletal remains recovered from the Pierhead and Fontabelle sections of Bridgetown during the late 1990s were just such a case. While originally there was some confusion regarding the identity of the remains, nine years of both macro and micro osteological analyses along with artifact and historical research, the conclusion is the individuals represent the enslaved and freedman populations of historical Bridgetown.

**Keywords:** *Bioarchaeology, DNA, ethnic identity.*

#### **Introduction**

The proper identification of an archaeological population is a multi-faceted task. While the determination of physical attributes occurs through bioarchaeological analysis, social identity, or perhaps more importantly ethnic affiliation, requires multiple sources of information. While the attribute of ancestry or population affiliation

is phenotypically and genetically based, ethnicity is much more fluid and is related to specific social and historical contexts. It is through these multiple sources of information that previously unknown archaeological populations get returned to the larger historical narrative.

When developers working on the expansion of the Dacosta Manning's store in the Pierhead district during 1996 and the construction of the Small Business Development Center in Fontabelle in 1999 uncovered skeletal remains during their work, they acted responsibly and notified the Barbados Museum and Historical Society about their discoveries. In both cases, managers and contractors from both projects graciously altered their work schedules to give archaeologists an opportunity to investigate the sites and conduct emergency excavations to recover the skeletal and archaeological materials found (Crain *et al.* 2004; Farmer 2004).

The emergency excavations of the sites recovered the skeletal material of at least thirty-two (MNI=32) individuals as well as many grave goods. While there were artifacts present from the historical period, there was continuing speculation as to the identities of the individuals interred within these sites. During the summers of 2004, 2005, and 2008 the macro-osteological analyses of the skeletal material were conducted with the intent to answer these questions. Furthermore, a preliminary mitochondrial analysis was conducted from 2009-2013 to determine if ancient DNA was obtainable from the skeletal material. From the demographic information, mitochondrial DNA evidence, archaeological context of the interments, and historical evidence from the period, it was determined that the individuals were of African ancestry and represented part of the enslaved and freedman populations of historical Bridgetown (Crain *et al.* 2004; Farmer 2004).

## Methodological Framework

The archaeological investigation of human skeletal remains and the conditions of their interment have been significant in the studies of past populations. Graveyards and the human remains they contain are invaluable sources of information about both individuals and communities that may not be in accepted historical accounts. A major component of such investigations is osteological analysis. Such an analysis can provide information that is relevant to the understanding of the general health, occupational stress, mortality rates, and identities of the past populations such archaeological samples represent (Jurmain 1999; Kelly 1989, 1991; Kelly and Micozzi 1984; Kennedy 1984, 1989; Larsen 1995, 1997; Lovell 2000). Though such information may be somewhat subjective and unrepresentative of the overall population (Wood *et al.* 1992), it provides hard evidence of the interaction between the individuals and their environments. Understandably, when used in conjunction, both macroscopic and microscopic methods can provide a reservoir of biological information about archaeologically based populations and their surrounding worlds.

But such evidence is only half of the picture. Due to the lack of historical anamnesis associated with marginalized populations from the past, bioarchaeological information needs a larger historical and social context. In this case, research of St. Michael's vestry records, period maps, as well as other historical sources located at the Barbados National Archives and the library of the Barbados Museum and Historical Society

allowed for a clearer picture of colonial Bridgetown and its larger world. Information from such sources shed light on labor activities, dietary practices, and the social hierarchy of the time. It is because of this information that the social identity/ethnic affiliation of these people was identified (Martin *et al.* 2013).

This multi-faceted approach shed new light on the biological and social lives of these people and clarified their socially bound status as members of the early enslaved and freedman populations of Bridgetown, Barbados.

### **Pierhead: The Bioarchaeological Evidence**

During the emergency excavation of the Pierhead graveyard, one rather complete skeleton, in addition to numerous skeletal fragments, was recovered. Based upon a count of the skeletal elements, the minimum number of individuals present in this sample is six (MNI= 6), with the high probability of there being more since there are some sub-adult elements, including a portion of a juvenile pubis, among the remains. In addition to the one articulated individual, the other elements consist of various fragments of long bones, crania, meta-carpals, and metatarsals. Only one skeleton was complete enough to proceed with the analysis necessary for the development of a biological profile (Crain 2005; Crain *et al.* 2004).

The morphology of the cranium and mandible indicated that the individual was female. Such a determination is due to the overall gracility of the skull, as well as the morphological indicators which included: the lack of a developed nuchal area, small mastoid processes, the undeveloped supra-orbital margins and glabella, undefined temporal lines, and the individual's non-projecting mental eminence. The innominate bones were complete except for the pubic regions. Determination of sex utilized the innominate bones and their wider greater sciatic notches as well as the presence of a defined preauricular sulcus upon the ilia, both characteristics indicate that this individual was female (Bass 1995; Buikstra and Ubelaker 1994; Crain 2005; Crain *et al.* 2004).

The determination of age was from the observations of several skeletal elements. First, following Ubelaker's data for dental development, the eruption and full occlusion of the third molars suggest someone between the ages of 21 to 35 years (Buikstra and Ubelaker 1994). Also, except for the observed destructive dental carries located upon the right second mandibular molar and the left maxillary first and second molar, the dentition was in very good condition with little attrition. Second, there was a visual inspection of the cranial sutures. While there was notable damage to individual sutures, most likely from taphonomic changes, it was still possible to make a general observation about their stages of fusion. All the sutures that appeared to be undamaged were scored a minimal closure value, again indicating this was a younger adult (Crain 2005; Crain *et al.* 2004).

Postcranial elements that were available for the assessment of age include some sternal rib ends, portions of the auricular surfaces of the ilia, and the various epiphyses. Of the sternal rib ends found, their morphological appearance fell between Iscan *et al.*'s (1985) phase two and phase three, indicating an individual somewhere between 15 to 25 years old. As for the innominate bones because of the noted absence of the pubis regions the auricular surfaces of the ilia were used (Lovejoy *et al.* 1985). The right auricular surface appeared to be in transition between phase two and three of the age-

chart, and the left was evaluated to be between phase three and four, thus representing someone between the ages of 24 to 39 years old, though most likely between 25 to 34 years of age. The last item of note relating to age is that all epiphyses were fused including the medial end of the clavicle, a characteristic of someone most likely older than 24 years of age. From these observations, the determination was this individual was between 24 to 39 years old when she died (Crain 2005; Crain *et al.* 2004).

The next step in developing a biological profile for any skeleton is determining the ancestral affiliation of the individual (Bass 1995; Byers 2002). Some of the traits used to assess ancestry include rectangular eye orbits, receding zygomatic bones, a rectangular dental arcade, spatula-like incisors, simple cranial sutures, s-shaped zygomaxillary sutures, a post-bregmatic depression, a wide nasal opening, nasal guttering, notable facial prognathism, and a rounded auditory meatus. Also, measurements for both the cranial and nasal indexes of this individual, place the cranial index (72.19) into the Dolichocranic category and the nasal aperture shape (56.25) within the Platyrrhini category (Giles and Elliot 1962). These values along with the observed morphological characteristics noted above indicate this female was of African ancestry (Crain 2005; Crain *et al.* 2004). Stature can be estimated when there are elements available for its calculation. The measurement of the femur was 45.5 centimeters (or 455 mm). Using Trotter's data, as presented by Byers (2002) for the reconstruction of the stature for women of African ancestry, it was calculated this woman stood between 5'3" to 5'6" tall (Crain 2005; Crain *et al.* 2004).

### **Pierhead: Observations of Pathological Lesions**

The Pierhead skeletal material exhibits several observable pathological lesions involving both the cranial and post-cranial skeleton. The right frontal bone of the individual skeleton has a small portion of bone missing, approximately one to two centimeters long and a millimeter wide, running perpendicular to her eye orbit with little or no remodeling. There are also pathological conditions involving her dentition. While there is some noticeable loss of alveolar bone around some of her dentition, one of the most destructive lesions is upon the mandible's right first molar that is missing its crown and body. This molar's roots are also exposed due to the missing adjacent alveolar bone most likely a result of abscesses. The first and second molars of the left maxilla are also missing their crowns and bodies, with their roots exposed as well. Also, the corresponding second premolar has been chipped along the adjacent edge and has an apparent discoloration at that point (Crain 2005; Crain *et al.* 2004).

While some of the loss of alveolar bone is most likely due to periodontal disease (Larsen 1997), the destruction of the molars and the abscessing of the surrounding alveolar bone is due to dental carries. Another point of interest is the apparent lack of the mandibular third molar on the right side. There is no evidence of eruption or alveolar remodeling, suggesting that its absence may be congenital. Among the other remains collected from Pierhead, two other recovered mandibular fragments also exhibit antemortem tooth loss, alveolar resorption, and many observable enamel hypoplasias (Crain 2005; Crain *et al.* 2004). The female from Pierhead also exhibits other notable stress markers both pathological and non-pathological on her postcranial skeleton. Various levels of osteophytic lipping are present on all three types of vertebrae.

Following Stewart's (1979) guidelines, the lumbar vertebrae exhibited anywhere from phase zero (none) to phase two (moderate) lipping, and all her cervical and thoracic vertebrae exhibited phase one to phase two.

Further effects of osteoarthritis are apparent upon the superior edge of the lesser tubercle of her right humerus, where a bone spur had formed. Analysis of her long bones also revealed the obvious symmetrical development of the muscle attachment points on her humeri, ulnae, and radii. All indicators that this woman suffered hard physical labor involving her upper body. No evidence of extreme trauma or pathological infection was among her remains. A situation that is not uncommon in the case of disease because it takes a chronic condition to leave skeletal evidence and most of these conditions kill their victims long before they leave such traces (Crain 2005; Crain *et al.* 2004; Larsen 1997; Munro 2005).

### **Pierhead: Profile Summary**

From the skeletal information, we can conclude that the nearly complete skeleton excavated at Pierhead is that of a female, 22 to 39-years-old, of African ancestry who was approximately 5'3" to 5'6" tall. Further analysis of the skeleton revealed obvious symmetrical muscle development of the upper and lower arm bones denoting someone engaging in hard physical labor involving the upper body. Also, there was some developing osteoarthritis associated with the right humeral head, as well as some slight to moderate osteophytic lipping of the cervical and thoracic vertebrae.

### **Fontabelle: The Bioarchaeological Evidence**

As with the Pierhead remains, the skeletal material from the Fontabelle graveyard was discovered in 1999 by construction workers and excavated rapidly to secure and preserve as much of the material as possible. These excavations recovered three articulated individuals along with the disarticulated remains of many others (Farmer 2004). The preservation of this material ranges from a few elements that are complete to those that are highly fragmented. Again, a count of skeletal elements places the minimum number of individuals within this sample at twenty-six (MNI=26), though, like the Pierhead sample, this number should be considered conservative since there were many sub-adult elements observed among the remains (Crain 2005; Farmer 2004).

From the locus 30 bu 85 a skull was practically intact as well as most of the innominate bones. All traits fell easily into the female spectrum, which reinforced the overall gracile impression of the skeleton. The partial skull recovered from locus 30 bu 72, on the other hand, had traits that fell well within the male spectrum of scoring. The skull especially had highly developed mastoid processes, supra-orbital margins, and supra-orbital ridges. Remains gathered from both loci 30 bu 154 and 30 bu 54 are representatives of the fact that much of this material is highly fragmented and commingled. The remains associated with 30 bu 154 contain fragmented cranial pieces that contain traits that represent a female, and in turn, also has a right innominate portion that most likely belongs to an immature male. The skull recovered from 30 bu 54 while expressing traits that are indeterminate, distinctly has a mandible with a very

pronounced perpendicular ascending ramus (a male attribute). From this evidence, the conclusion is that Fontabelle contains individuals of both sexes (Crain 2005).

### **Fontabelle: Observations of the Variations in Age**

Again, due to the fragmentary nature of this sample, many traits for individuals that were related became part of the estimations. The complete skeleton found at locus 30 bu 85 had the most morphological traits for such an assessment. The dentition was the first area to be observed, which with all third molars erupted and expressed indicates someone between the ages of 21 to 35. Second, the sternal rib ends that survived represented ages of development for a person between the ages of 15 to 31 years of age. The auricular surfaces of the pelvis were representative of a person between 25-34 years of age. The medial end of an existing clavicle was fused thus indicating someone at least 24 years or older, and all the cranial sutures were not fused. These different age-related changes then suggest someone that was between the ages of 24 to 39 years at their time of death.

Other attempts to age some of the other material was not as easy due to the mixed and fragmentary nature of the remains. The partial skull from the 30 bu 72 was missing its dentition, and only a portion of cranial sutures are present. Of those observable, they were either completely fused or nearly completely fused. These characteristics indicate that this skull is from an individual who was most likely 45 years or older. The fragmented cranial remains from 30 bu 54 revealed open sutures with no closing, indicating someone of a younger age category (22-48 years). Also, there are sub-adult cranial fragments and sub-adult vertebrae present in the sample (Crain 2005).

### **Observed Traits of Ancestry**

The only reliable portion of the skeleton in the assessment of ancestry is the skull (Bass 1995). While there is variation within all populations, there are certain phenotypical traits, when observed in conjunction, can allow one to estimate the ancestry of skeletal specimens accurately. For example, the nearly complete skull found at the locus 30 bu 85 has many traits that indicate its ancestry. These traits include rectangular eye orbits, a rectangular dental arcade, simple cranial sutures, nasal guttering, and rounded auditory meatus. These traits in conjunction with measurements taken for the cranial index and nasal index indicate that this person was of African ancestry. Some other examples of fragmented skulls located in the loci, 30 bu 72 and 30 bu 94, also have phenotypical traits that reflect African ancestries such as post-bregmatic depression, round auditory meatus, simple sutures, nasal guttering, and a mandible with a rounded chin. A portion of the left maxilla and nasal aperture found within the locus 30 bu 44 exhibited the nasal guttering often associated with those of African ancestry. Because of the traits observed with the cranial skeletal material noted here, the determination is that the individuals excavated from this site are of African ancestry (Crain 2005).

## Observed Indicators of Stress

Specific pathological conditions noted among the cranial elements include evidence of possible trauma, anemia, and a case involving lytic lesions. The cranial element from 30 bu 54 has an edged depression on the left side of the frontal bone 1-2 centimeters long and a quarter of a centimeter wide running almost parallel to the coronal suture. While the cause of this trauma avoids identification, there have been many such traits associated with interpersonal violence upon the cranial elements from Newton Plantation (Corruccini *et al.* 1982; Crain 2005). A second pathological condition observed upon various cranial material was the manifestation of cribra orbitalia and porotic hyperostosis. A large portion of the cranial material present (78.6%) exhibited either condition (Crain 2005). These lesions are the direct result of the increased production of red blood cells in response to some form of anemia (Kelly 1989; Ortner and Putschar 1981). Anemia can have a genetic origin, or it can be induced by environmental conditions involving nutritional inadequacies, bacterial infections, or parasitic diseases, though often it is most likely a combination of all three (Martin *et al.* 1985; Ortner and Putschar 1981; Stuart-Macadam 1989; White 2000). While a genetic explanation may be accurate, there are environmental considerations. First, while enslaved Africans had some access to protein-based foods, such access was limited in both quantity and quality throughout this period (Handler and Lange 1978; Sheridan 1976). Second, during this historical period, Bridgetown was identified by many as being the least healthy place in Barbados (Dunn 1969).

The last specific pathological condition observed on the cranial material is on an occipital bone among the materials from locus 30 bu 147. This bone exhibited several lytic lesions on its endocranial side near the nuchal area. These lesions, two of which are at least a centimeter in size, may be the result of secondary osteomyelitis due to such infections as meningitis (Crain 2005; Ortner and Putschar 1981) or caused by the development of certain cancers (Jonsdottir *et al.* 2003; Ortner and Putschar 1981; White 2000).

Of the pathological lesions found upon the dentition, antemortem tooth loss, enamel hypoplasias, and alveolar resorption are the most prevalent in all samples (Crain 2005). Of the mandibles identified 88% exhibit ATML, with 51% involving the loss of multiple teeth. This condition is often the result of the development of dental caries. Such caries may well be the result of the monocrop agriculture practiced upon the island that required the importation of large amounts of cereals and grains from other British colonies (Handler and Lange 1978; Sheridan 1976). Evidence of non-specific pathological conditions is observable on several long bones in this population (Crain 2005). Evidence of periostitis is observable upon various humeri, femora, and tibiae. While the individual cases range in activity levels, the prevalence indicates that these populations suffered from exposure to biological assault (White 2000).

Various postcranial elements from the samples also exhibit various lesions associated with primary osteoarthritis or Degenerative Joint Disease (DJD). Two separate humeri, from two individuals, exhibited osteological growths, or spurs around points of articulation. Forty-five percent of all the adult vertebrae, including 36% of all the thoracic, exhibited minor to moderate osteophytic lipping, though there was no fusion of any osteophytes. While DJD can occur with the vertebral column due to bipedal locomotion (Jurmain 1999), such conditions are often the result of numerous factors

including the age, sex, mechanical stress, and genetic predisposition of the individuals involved (Kent *et al.* 1979; White 2000). Consequently, when one compares the assessed ages of these individuals with the amount of DJD occurring upon the observed vertebrae, mechanical stress due to heavy labor would appear to be a major contributing factor to this pathological condition (Crain 2005). Such manifestations of osteoarthritis were also among other samples of slave populations from this period (Kelly and Angel 1987; Owsley *et al.* 1987; Rathburn 1987).

Another indicator that the members of this population were involved with heavy labor is the observation of specific muscle attachment points. Wolff's Law of Biomechanics explains that bone deposition increases to areas of the skeleton that require additional structural support (Hawkey and Merbs 1995; Kennedy 1989). All the long adult bones associated with the upper body in this population exhibit such hypertrophic symmetrical development. The attachment points observed include those of the: deltoid process, greater tubercle, and lesser tubercle of the humerus, the olecranon process of the ulna, and the radial tuberosity (Crain 2005; Mckinley and O'Loughlin 2006; Muno 2005). These anchor points relate to muscles used during long-term and intense heavy lifting. Such enhanced muscle attachment points, again, have been observed in various skeletal samples of enslaved African populations based in both urban and rural areas of colonial North America (Blakey and Rankin-Hill 2009; Kelly and Angel 1987; Owsley *et al.* 1987; Rathburn 1987).

In summation, the osteological evidence indicates that these two samples represent a group of individuals of various ages, both sexes, and of African ancestry. It also gives us ample evidence that these people were involved in a long-term intense physical activity involving the upper body. In addition to these workloads, they suffered from the hardships of urban life common in early historical Bridgetown including poor diet and infectious disease (Crain 2005; Dunn 1969; Sheridan 1976).

### **Mitochondrial DNA Analysis**

The analysis of ancient DNA is an important tool in archaeological research for establishing the molecular origins of human populations. Because of its maternal inheritance, mtDNA is used to establish lineages across generations. Certain mutations in the mtDNA are more likely to be found in certain ancestral/ethnic groups (haplogroups), to the extent that identification of certain lineages is possible (Allison *et al.* 2014; Van Oven and Kayser 2009). Eight samples of human skeletal material from the Fontabelle burial grounds (loci 30bu-45, 30bu-54, 30bu-61, 30bu-62, 30bu-72, 30bu-141, 30bu-147, and 30bu-157) were chosen for the genetic analysis. While most extractions did not yield DNA, mtDNA sequences from three loci (30bu61, 30bu62, 30bu141) occurred, with only one reproducible in separate extractions (30bu141). This sample (30bu141, molar) belonged to haplogroup C1, a Native American haplogroup of North and South America, which points to the intriguing possibility that this individual may be a descendant of Amerindian heritage. The other two sample's mutations (30bu61, long bone; 30bu62, molar), showed the highest match probabilities with Kenyan and other African populations, suggesting the samples belong to the remains of individuals of African ancestry (Allison *et al.* 2014; Hoptay 2013).



## Archaeological Evidence

The female recovered from Pierhead had both a small coin or medallion and a long-stemmed white kaolin clay English tobacco pipe buried with her person. The coin/medallion was perforated and found in the chest area. It was of copper or some copper alloy, and the edge was roulette (Crain *et al.* 2004). There were some distinguishing marks on the surface of the coin/medallion, but corrosion has made the marks unreadable. The excavations in Fontabelle recovered many similar coin/medallions (Farmer 2004). However, no such coin/medallions were in the more than one hundred burials at Newton (Handler and Corruccini 1983). If these are in fact coins, then perhaps they represent the greater economic opportunities open to Bridgetown's enslaved population and, thus, their greater access to coinage.

The bowl of the tobacco pipe in Pierhead was in the right hand, and the stem lay between the arm and torso (Crain 2005; Crain *et al.* 2004). The highly burnished tobacco pipe's shape and bowl configuration are consistent with clay tobacco pipes produced in the early to a mid-eighteenth century (Noel Hume 1991). The bowl of the tobacco pipe had a makers' mark consisting of two Roman-numeral ones side by side within a horseshoe-shape. Again, an identical clay pipe was among the Fontabelle grave goods (Crain 2005; Crain *et al.* 2004; Farmer 2004).

Tobacco pipes were prevalent in the Newton Plantation slave cemetery. Handler and Lange (1978) recovered twenty-one whole tobacco pipes with seventeen individual burials. The use of tobacco pipes as grave goods reflects West African beliefs about the afterlife. Handler and Lange (1978) argue that clay tobacco pipes were placed in graves as gifts to the ancestors and to aid the deceased's journey to the spirit world. They also emphasize that planters gave items such as tobacco pipes to the enslaved as part of a reward and incentive system aimed at eliciting a favorable disposition from their labor force. The presence of clay tobacco pipes in burials for the enslaved may be, therefore, a reflection of that system. The presence of various clay tobacco pipes in the urban cemeteries like Pierhead and Fontabelle suggests that such a reward and incentive system was not just operative on the rural sugar estates.

## The Historical Geography of Bridgetown

The location of the cemeteries in the Pierhead and Fontabelle sections of Bridgetown placed them near the historic coastline (Crain 2005; Crain *et al.* 2004). In the seventeenth century, both areas were undeveloped beachhead and swampland. Fort Willoughby, constructed in 1656, on the western tip of the Pierhead shoreline was the only major architectural feature in this area of Bridgetown. Samuel Copen's 1695 sketch 'A Prospect of Bridgetown' shows that the Pierhead area south of the Constitution River was relatively unsettled and used mainly for careening ships. In Copen's sketch, the location of the cemetery is open pasture, though a small two-story structure stands nearby. In 1700, the West Bridge, near the site of the present-day Swing Bridge, was destroyed in heavy floods and was not rebuilt, thus hindering the future development of the Pierhead area. William Mayo's map of Bridgetown, for example, shows that there were still only a handful of structures, probably storehouses, in the Pierhead area by the year 1722 (Alleyne 1978).

In the mid-eighteenth century, the Pierhead area began to see some urban expansion (Crain 2005; Crain *et al.* 2004). In 1760, the rebuilt West Bridge, although a small wooden structure, made the Pierhead accessible to pedestrian traffic, and thus, urban development. Consequently, the Great Fire of 1766 devastated Bridgetown, which led to changes in the urban landscape that brought the Pierhead under Bridgetown's jurisdiction. The planners reshaped Pierhead and encouraged suburban and residential development to help meet the housing needs of Bridgetown's growing population. It may have been during this time that the Pierhead burial ground ceased to function as a cemetery. The Hurricane of 1780 severely damaged the Pierhead area, which lay in ruin until the early nineteenth century (Alleyne 1978). Maps of the Pierhead reconstructed by historical geographer Martyn Bowden (2003) show that, although residential development was expanding in the Pierhead area, the cemetery location remained an open space until the early nineteenth century and was most likely forgotten.

Documentary reports, however, mention the presence of African burial grounds in the environs of Bridgetown (Crain 2005; Crain *et al.* 2004). In 1748, for example, English physician Robert Poole visited Barbados and recorded the events surrounding a slave funeral in the Fontabelle section. Poole wrote of the burial ground being near the sea (Watson 2000).

This description of the Fontabelle burial parallels observations at the Pierhead burial ground, which was also located close to the sea and just beyond the beach (Farmer 2004). Thus, there may be a pattern to the placement of slave burial grounds in Bridgetown. Both the Pierhead and Fontabelle burial grounds locations on the marginal coastal lands of historical Bridgetown is important. It is perhaps possible officials in Bridgetown allowed the enslaved to use these areas as burial grounds because the use of these spaces did not impede urban growth or affect sugarcane agriculture.

## **The Socio-Historical context of Colonial Bridgetown**

By the end of the seventeenth century, Barbados was the leading producer of sugar in the Caribbean. Because of this, and the economic benefits it provided, its capital, Bridgetown, became the busiest port in the Western hemisphere. For the short period in which it reigned as such, its growing population of enslaved people (13,000 by 1715) provided a workforce that provided all the services a large port town required (Welch 2002). Due to the emigration of some of the white indentured workforce, various service industries were open to exploitation (Beckles 1990). Many of these positions included various skilled trades such as blacksmith, carpenters, fishers, stock keepers, guards, and nurses (Welch 2002; 2003).

Because of such labor needs, many skilled and unskilled enslaved individuals were 'hired out' by their enslavers for work in the city. For these duties, they received wages in which they portioned to their enslavers, personal housing, and food. In addition to these enslaved individuals, there were also many freemen and women who lived and worked in the city, creating an economic base that allowed them to prosper in the expanding maritime environment of the time. Many mulatto women such as Rachel Pringles, owned many businesses including some of the more fashionable hotels and 'tipping and crimping' houses in the city (Beckles 2002; Welch 2003). These conditions allowed enslaved individuals to have a greater potential for economic gain, and because

of this, freedom, either by purchasing it themselves or through a beneficial alliance with someone else.

Such an environment created a situation where the dominant ideology and the society it defined were constantly being altered by the very activities that supported both. Because there was a lack of necessary European skilled tradesmen, someone had to fill the void. The enslaved and freemen individuals that did fill this economic need gained a certain amount of autonomy that allowed them to affect their environment in several ways. They became an economic force that could not be denied or ignored, and which created new forms of meaning and operation under which new strategies of identification formed (Bhabha 1994). But such social conditions did not go unchallenged by those who dominated the social hierarchy. For example, the legislation against huckstering passed during 1774 was passed to control:

*'huckster Negroes... [from visiting] vessels arriving here and purchase from thence livestock to revend [sell]' (Welch 2002:188)*

inhibiting a system of exchange that created competition for white merchants in the city; a competition they saw, as being contrary to the natural order of things.

The tipling and crimpling houses owned by predominantly mulatto women were also a problem for the mercantile class. In 1801, a group of merchants approached the assembly to report that many such establishments were causing white seamen to leave the docks before their work was complete – a situation that caused the merchants to have to discharge cargos by ‘hiring out negroes’ at an additional expense (Welch 2002, 2003). Such an issue must have felt twofold since it not only affected the importers but those who were also investors in other operations in the hospitality industry.

While such expansive economic activities made it very difficult, if not impossible, for the legal and systematic segregation between the classes of the enslaver and enslaved, it still existed. In fact, due to the competition, it created for European tradesman in the labor market and their negative opinion of self-initiated manumission, various methods were used to reinforce the racialized social ideology (Beckles 2002). As described by Giddens (1979), a spatial component was present even in the confining urban environment of Bridgetown. The class-based character of the society had an internal mechanism to maintain the spatial differentiation of the center and periphery. For example, various wealthy merchants had domestic servants around the clock within their households, but such a situation did not mean any level of integration. Many tax records often noted a place on the grounds, often near the stables identified as the ‘negro house’, an area of habitation one can correlate with the ‘negro yards’ of the plantation (Menard 2006). Another example of this need to separate or exclude themselves from the enslaved and freeman of Bridgetown, merchants who had their homes on Cheapside petitioned for the removal of a cage that held captured runaways. They complained that strangers were astonished to seeing so great an evil exist in so populous and respectable a place as Bridgetown (Welch 2003). Their primary argument was not towards the disposition of the prisoners, but the fact that its location was near their homes. These are but two examples where the social elite reinforced a spatial dimension between the center, a representation of themselves, and the marginalized, or enslaved. Even the dead, like their counterparts on the plantation, did not escape this ideology.

Even though members of the enslaved and free communities in Bridgetown may have had economic opportunities beyond those laboring on plantations, they suffered the same control mechanisms when interring their dead.

## Conclusion

While biological evidence from the skeletal remains tells us that the individuals from Pierhead and Fontabelle were of African ancestry and exposed to severe forms of occupational and pathological stress, it provides only half of the story. It is the archaeological and historical documentation from this period that allows us to have a greater understanding of the world in which they lived. These sources allow for us to place the biological information into the actual social, economic, and political contexts which they navigated daily. It is because of this multi-faceted approach and the information it revealed that we could determine with a high degree of certainty that the individuals interred at these sites are of African ancestry and represent part of the enslaved and freedman populations of historical Bridgetown.

## References

- Alleyne, W.  
1978 *Historic Bridgetown, Barbados*. Barbados National Trust, Bridgetown.
- Allison, L., C. Crain, and L. Epp.  
2014 *Mitochondrial DNA Analysis of Human Remains Recovered from the Fontabelle Section of Bridgetown, Barbados*. Lab Report, College of William & Mary, Williamsburg.
- Bass, W.  
1995 *Human Osteology: A Laboratory and Field Manual*. Special Publication No.2. Missouri Archaeological Society, Columbia.
- Beckles, H.  
1990 A 'riotous and unruly lot': Irish indentured servants and freemen in the English West Indies, 1644-1713. *William and Mary Quarterly* 47/4:501-522.  
2002 Freedom without liberty: free Blacks in the Barbados slave system. In *Slavery without Sugar: Diversity in Caribbean Economy and Society Since the seventeenth Century*, edited by V. Shepherd. pp. 199-223. University Press of Florida, Gainesville.
- Bhabha, H.  
1994 *The Location of Culture*. Routledge, London.
- Blakey, M. and L. Rankin-Hill.  
2009 *The Skeletal Biology of the African Burial Ground*. Howard University Press, Washington.
- Bowden, M.  
2003 The Three Centuries of Bridgetown: an historical geography. *Journal of the Barbados Museum and Historical Society* 49:3-137.

- Buikstra, J. and D. Ubelaker.  
 1994 *Standards for Data Collection from Human Skeletal Remains. Proceedings of a Seminar at the Field Museum of Natural History. Arkansas Archaeological Survey Research Series 44.* Arkansas Archaeological Survey, Fayetteville.
- Byers, S.  
 2002 *Introduction to Forensic Anthropology.* Allyn and Bacon, Boston.
- Corruccini, R., J. Handler, R. Mutaw and F. Lange.  
 1982 Osteology of a slave burial population from Barbados, West Indies. *American Journal of Physical Anthropology* 59:443-459.
- Crain, C.  
 2005 Bioarchaeological Investigation of Two Unmarked Graveyards in Bridgetown Barbados. MA Thesis, Western Michigan University, Kalamazoo, Michigan.
- Crain, C., K. Farmer, F. Smith, and K. Watson.  
 2004 Human skeletal remains from an unmarked African burial ground in the Pierhead section of Bridgetown, Barbados. *The Journal of the Barbados Museum and Historical Society* 50: 66-83.
- Dunn, R.  
 1969 The Barbados Census of 1680: profile of the richest colony in English America. *William And Mary Quarterly* 26/1:3-30.
- Farmer, K.  
 2004 Human skeletal remains from an unmarked Barbadian burial ground in the Fontabelle section of Bridgetown, Barbados. *The Journal of the Barbados Museum and Historical Society* 50 : 84-90.
- Giddens, A.  
 1979 *Central Problems in Social Theory: Action, Structure, and Contradictions in Social Analysis.* University of California Press, Los Angeles.
- Giles, E. and O. Elliot.  
 1962 Race identification from cranial measurements. *Journal of Forensic Sciences* 7:147-57.
- Handler, J. and R. Corruccini.  
 1983 Plantation slave life in Barbados: A physical anthropological analysis. *Journal of Interdisciplinary history* 14/1:65-90.
- Handler, J. and F. Lange.  
 1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation.* Harvard University Press, Cambridge, Mass.
- Hawkey, D. and C. Merbs.  
 1995 Activity-induced Musculoskeletal Stress Markers (MSM) and subsistence changes among Ancient Hudson Bay Eskimos. *International Journal of Osteoarchaeology* 5:324-338.

- Hoptay, K.  
2013 *Analyzing ancient mitochondrial DNA from Fontabelle emergency excavation site remains*. Honors Thesis, College of William and Mary, Williamsburg.
- Iscan, M., S. Loth, and R. Wright.  
1985 Age estimation from the rib by phase analysis: white females. *Journal of Forensic Sciences* 30:853-63.
- Jonsdottir, B., D. Ortner, and B. Frohlich.  
2003 Probable destructive Meningioma in an archaeological adult male Skull from Alaska. *American Journal of Physical Anthropology* 122:232-239.
- Jurmain, R.  
1999 *Stories from the Skeleton: Behavioral Reconstruction in Human Osteology*. Gordon and Breach Science Publishers, Amsterdam.
- Kelley, J., and L. Angel.  
1987 Life stresses of slavery. *American Journal of Physical Anthropology* 74:199-211.
- Kelly, M.  
1989 Infectious disease. In *Reconstruction of Life From the Skeleton*, edited by M. Yasar Iscan, and K. Kennedy. pp. 191-199. Alan R. Liss, New York.  
1991 Ethnohistorical accounts as a method of assessing health, disease, and population decline among Native Americans. In *Human Paleopathology: Current Syntheses and Future Options*, edited by D. Ortner, and A. Aufdeheide. pp. 111-118. Smithsonian Press Washington DC.
- Kelly, M., and M. Micozzi.  
1984 Rib lesions in chronic pulmonary tuberculosis. *American Journal of Physical Anthropology* 65:381-386.
- Kennedy, K.  
1984 Growth, nutrition and pathology in changing paleodemographic settings in South Asia. In *Paleopathology At The Origins of Agriculture*, edited by M. Cohen and G. Armelagos. pp. 169-192. Academic Press, Orlando.  
1989 Skeletal markers of occupational stress. In *Reconstruction of Life From the Skeleton*, edited by M. Yasar Iscan, and K. Kennedy. pp. 129-160. Alan R. Liss, New York.
- Kent, T., M. Hart, and T. Shires.  
1979 *Introduction to Human Disease*. Apple-Century-Crofts, New York, US.
- Larsen, C.  
1995 Biological changes in the human population with agriculture. *Annual Review of Anthropology* 24:185-213.  
1997 *Bioarchaeology: Interpreting Behavior from the human skeleton*. Cambridge University Press, Cambridge.
- Lovejoy, O., R. Meindl, T. Pryzbeck, and R. Mensforth.  
1985 Chronological metamorphosis of the auricular surface of the Ilium: a new method for the determination of age at death. *American Journal of Physical Anthropology* 68:15-28.

- Lovell, N.  
2000 Paleopathological description and diagnosis. In *Biological Anthropology of the Human Skeleton*, edited by M. Katzenberg and S. Saunders. pp 217-248. Wiley-Liss, New York.
- Martin, D., A. Goodman, and G. Armelagos.  
1985 Skeletal pathologies as indicators of diet. In *The Analysis of Prehistoric Diet*, edited by R. Gilbert and J. Mielke. pp. 227-279. Academic Press, Orlando.
- Martin, D., R. Harrod, and V. Perez.  
2013 *Bioarchaeology: An Integrated Approach to Working with Human Remains*. Springer Science and Social Media, New York.
- McKinley, M. and V. O'Loughlin.  
2006 *Human Anatomy*. McGraw Hill Higher Education, New York, US.
- Menard, R.  
2006 *Sweet Negotiations: Sugar, Slavery, and Plantation Agriculture in Early Barbados*. University of Virginia Press, Charlottesville, US.
- Muno, S.  
2005 Occupational Stress and Slavery: Evidence from Bridgetown, Barbados. MA Thesis, Western Michigan University, Kalamazoo, Michigan, US.
- Noel Hume, I.  
1991 *A Guide to Artifacts of Colonial America*. Vintage Books, New York, US (reprint edition).
- Ortner, D., and W. Putschar.  
1981 *Identification of Pathological Conditions in Human Skeletal Remains*. Smithsonian Contributions to Anthropology 28. Smithsonian Institution Press, Washington C.
- Owsley, D., C. Orser Jr., R. Mann, P. Moore-Jansen, and R. Montgomery.  
1987 Demography and pathology of an urban slave population from New Orleans. *American Journal of Physical Anthropology* 74:185-197.
- Rathburn, T.  
1987 Health and disease at a South Carolina plantation: 1840-1870. *American Journal of Physical Anthropology* 74:239-253.
- Sheridan, R.  
1976 The crisis of slave subsistence in the British West Indies during and after the American Revolution. *William and Mary Quarterly* 33/4:615-41.
- Stewart, T.  
1979 *Essentials of forensic anthropology: Especially as developed in the United States*. Charles C. Thomas, Springfield.
- Stuart-Macadam, P.  
1989 Nutritional deficiency disease: a survey of scurvy, rickets, and iron-deficiency anemia, In *Reconstruction of Life From the Skeleton*, edited by M. Yasar Iscan, and K. Kennedy. pp. 201-222. Alan R. Liss, New York.

Van Oven, M., and M. Kayser.

2009 Updated comprehensive phylogenetic tree of global human mitochondrial DNA variation, *Human Mutation* 30/2:EE386-E394. DOI: 10.1002/humu.20921.

Watson, K.

2000 Robert Poole's 'The Beneficent Bee or Traveler's Companion,' (1748, London), reprinted and edited. *Journal of the Barbados Museum and Historical Society* 46:209-210.

Welch, P.

2002 The urban context of the life of the enslaved: views from Bridgetown, Barbados, in the eighteenth and nineteenth Centuries, In *Slavery without Sugar: Diversity in Caribbean Economy and Society Since the 17th Century*, edited by V. Shepherd. pp. 183-198. University Press of Florida, Gainesville.

2003 *Slave Society in the City: Bridgetown, Barbados 1680-1834*. Ian Randle Publishers, Miami, US.

White, T.

2000 *Human Osteology*. 2nd Edition, Academic Press, San Diego.

Wood, J., G. Milner, H. Harpending, and K. Weiss.

1992 The osteological paradox: problems of inferring prehistoric health from skeletal samples. *Current Anthropology* 33/4:343-370.



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# Sourcing Domestic and Industrial Ceramics from Trents Plantation, Barbados using LA-ICP-MS (Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry)

*Lindsay Bloch*

## **Abstract**

A wide variety of ceramics are recovered in plantation contexts in Barbados, from hand-built coarse earthenwares to refined tablewares, as well as industrial forms for sugar production. However, the origins for these ceramics are often uncertain. While many ceramics were imported from production centers in Great Britain and elsewhere in the Americas, planters in Barbados also brought in European potters to establish domestic pottery workshops. Made in the same tradition and in the same forms in Barbados as in Europe, it is difficult to visually identify the source of these earthenware products. To better understand the origins of coarse earthenwares found at Trents Plantation on the west coast of Barbados, 117 samples were analyzed via LA-ICP-MS, and their elemental values compared with those from known British and American earthenware sources. The results show significant evidence for Barbadian production of domestic and industrial wares. In particular, the shift from imported coarse earthenwares to locally produced wares may be linked to the intensification of sugar production around the mid-seventeenth century. This evidence for local ceramic production in Barbados illuminates the economic strategies of colonial Barbados in the British Atlantic world.

**Keywords:** *Pottery, sourcing, compositional analysis.*

## Introduction

This paper presents an elemental analysis of earthenware recovered from Trents Plantation using LA-ICP-MS (Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry). The objective was to determine the makeup and source of domestic and industrial earthenware recovered from three foci on the plantation. Broadly, there were three potential sources for earthenware in Barbados during the historic period: 1) local production; 2) European imports, mainly English; and 3) imports from other English or European colonies in the Americas. Which of these potential sources for coarse earthenwares contributed to the ceramic assemblages on Barbados plantations? Were domestic wares and industrial wares from the same source(s), and did the sources used change over time? To address these questions, I carried out LA-ICP-MS analysis on 117 earthenware ceramics, including 114 samples from Trents plantation. This assemblage was selected by Douglas Armstrong and Sara McNamara from a collection of 6881 earthenwares excavated from Trents Plantation (Armstrong this volume; Armstrong and Reilly 2014; McNamara 2016).

Given the dramatic expansion of the plantation system in the 1640s on Barbados, access to all forms of material goods and supplies, including pottery, was critical. In 1670, Samuel Newton, stated a need for potters (quoted in Spavold and Brown 2005:82):

*'send over artificers and tradesmen such as may be fit for our plantation by the first especially Taylers and Smiths and when you are at leasure in Derbyshire goe to Tickner and procure a potter and allow him wages. Pray send over one that is a workman.'*

Newton himself was from Derbyshire in the East Midlands of England. With a long history of pottery production in the region, he knew that his agent could find an experienced potter there who was capable of making the types of vessels he desired in Barbados. Documentary and archaeological evidence show that colonial planters in Barbados were endeavoring to establish domestic production of necessities such as pottery on their plantations. More so than in many other English (and later British) colonies, Barbados plantations required large quantities of ceramics. In addition to everyday household needs for food storage, preparation, and serving, the early adoption of sugar production necessitated large quantities of industrial earthenwares including sugar molds and drip jars.

Although seeking self-sufficiency, at the same time Barbados planters maintained strong economic relationships with merchants in England and Scotland. They also had firm social and economic ties with Dutch and English traders and mariners (Armstrong 2019). These connections to the broader Atlantic world provided the colony with access to goods from the Far East, Africa, South America, North America, and Europe. Though initially limited by finance, once the sugar plantation system was set in motion, planters were able to obtain a wide variety of imported everyday and luxury goods to supplement food and materials grown and made in Barbados. It also led to the replacement of what had been small numbers of primarily European laborers working under short-term contracts, to large numbers of African laborers transported to Barbados from Africa as chattel slaves (Armstrong and Reilly 2014; Beckles 2006).

Trents Plantation is located in Saint James Parish on the west coast of Barbados. This plantation was occupied from the initial colonial settlement of Barbados in 1627 through emancipation (Armstrong and Reilly 2014). The site has yielded information on early pre-sugar era and sugar plantation contexts. From 1627 until the late 1640s the property was operated as a relatively small-scale farm with planters and laborers living in close proximity in and around the planter's house (Locus 1). The shift to sugar involved a dramatic shift in scale and social relations, with formerly small numbers of indentured laborers replaced by large numbers of enslaved African laborers.

The earthenware samples derive from three areas on the site. Data for the pre-sugar era derives from the combined planter and laborer context at Locus 1. This area continued on as the planter's residence. However, with the shift to sugar in the late 1640s, a new enslaved laborer village was constructed and occupied until the end of slavery (Locus 2). With emancipation in 1838, the planter household (Locus 1) continued to be used, but the enslaved laborer quarters were removed to a free laborer tenantry at the edge of the plantation (Armstrong this volume; Armstrong 2015a). The third locus from which samples derive is Trents Cave and rock shelter (Locus 3). The cave and shelter were hidden in a gully situated between the village and the planter's mansion. The cave and associated rock shelter were clandestinely used recurrently over a period of more than 100 years from the 1750s until the 1850s (Armstrong 2015b). The cave contained quantities of iron and steel, including weapons, but the deposits had no pottery or glass. However, the shelter area had a wide array of domestic wares related to recurrent use tied to practices and rituals performed in the cave. Together, the three loci at Trents provide a comprehensive sample of material associated with pre-sugar era (1620s – 1640s) as well as sugar plantation era planter and enslaved laborer contexts that spanned the shift to sugar (late-1640s) to emancipation (1838).

The earthenware from excavations at Trents offered the opportunity to investigate temporal changes in earthenware procurement, in particular the effects of plantation intensification. The sample of 117 sherds that was tested using LA-ICP-MS included domestic wares and industrial sugar production wares. Some sherds clearly exhibited characteristics of hand-built Caribbean pottery. Other samples were consistent with known British production regions; yet, the majority of sherds were visually ambiguous as to production origin. Barbadian earthenwares have been described as soft and poorly fired (Loftfield 2001:225), but this description could apply equally to many earthenwares made across the Atlantic world at this time. Lead glazed coarse earthenwares were produced throughout the post-medieval European world in similar forms and using common methods such as wheel throwing (Gibble 2001:258). Coupled with the limited range of variation in surface treatment, it can be challenging to ascertain the origin of an earthenware vessel, especially at the sherd level. For this reason, elemental analysis was conducted to recover information about the origin of these artifacts, in concert with macroscopic analysis.

The samples were analyzed via laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) in order to obtain their elemental concentrations. These values were then compared with each other and with reference materials from identified earthenware production sources outside of the Caribbean. The results demonstrate the importance of local production of earthenware for industrial and domestic purposes during the sugar era in Barbados.

## History

The production of earthenware in Barbados differed in many respects from that of other colonial Caribbean contexts. This is in part because the island was abandoned when first visited by English mariners in 1625 (Handler 1977; Harlow 1925). Archaeological investigations have found pre-Columbian pottery dating from the Saladoid through Suazan Troumassoid phases in Barbados (500 BC-1400 AD) (Drewett 2000). Elemental and descriptive analyses indicate that indigenous ceramics found at sites across the island, including a site near the shore at Holetown, and an extensively excavated site at Heywoods, a few kilometers to the north, were likely produced on the island (Drewett 2000; 2002; 2007; Fitzpatrick 1996; Lawrence *et al.* 2016). This indicates that local clay sources were readily accessible. Given the lack of indigenous inhabitants present in Barbados at the time of English colonization, there was no active, local on-island tradition affected by the arrival of Europeans and enslaved Africans (Armstrong and Reilly 2014; Handler 1977; Harlow 1925). However, upon arrival the pioneering colonists travelled to Guiana and brought back 30-40 Indigenous 'Arawaks' who played a significant role in the early life of the colony, particularly in relation to food production and consumption (Armstrong this volume; Armstrong 2019; Handler 1977; Harlow 1925).

In other British colonies, notably Jamaica, there was a strong cottage industry of earthenware production by enslaved households, utilizing creolized methods of manufacture such as coil building and open firing (Hauser 2008). In Barbados, there is little evidence of such a tradition. Instead, the vast majority of historic earthenwares found in Barbados, many of which were likely locally produced in plantation pothouses, were wheel-thrown and kiln-fired forms using European-style methods (Handler 1963a; Loftfield 2001).

A number of researchers have investigated this historic pottery tradition in Barbados, including its transformation into a cottage industry in the present day (Farmer 2011; Handler 1963b, 1963a; Loftfield 2001; Scheid 2015; Stoner 2000). By bringing over English potters, such as the one requested by Samuel Newton, English planters in Barbados established pottery workshops to produce industrial sugarwares and domestic goods. Working as indentured servants or wage laborers, English potters trained enslaved workers on the plantations, who then took over production (Finch 2013; Handler 1963b). Whereas it is known that around 20 kilns were operating in the eighteenth century (Finch 2013:122; Handler 1963b:135), only two historical potteries in Barbados have been archaeologically tested: Codrington and Colleton (Loftfield 2001; Scheid 2015; Stoner 2000). The archaeological evidence suggests that production of domestic wares at these plantation pothouses was far outweighed by architectural and industrial wares. At Codrington during the eighteenth century, domestic goods made up only eight percent of the waster assemblage (Scheid 2015:342). Furthermore, within the extensive documentary evidence for Codrington, there is no reference to the sale of domestic earthenwares to other plantations on the island (Scheid 2015:212).

Both Codrington and Colleton are located within the Scotland District of Barbados. Geologically, Barbados consists of two primary zones: the limestone coral reef cap, and the exposed basement material in the Scotland District (Figure 14.1). Unlike most of the Lesser Antilles, Barbados is non-volcanic in origin. The majority of the island is covered by the coral cap; a sedimentary limestone deposit extending to

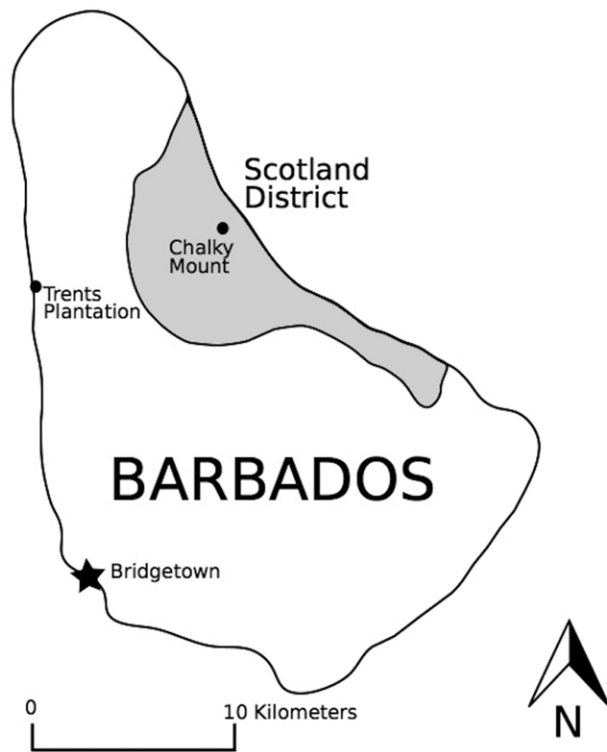


Figure 14.1.  
 Topographic map of  
 Barbados showing  
 the Scotland District  
 and location of Trents  
 Plantation and Chalky  
 Mount Pottery.

a depth of several hundred feet in places. Small clay outcrops have been noted within this cap, including at Trents plantation (McNamara 2016:37), but large deposits of clay suitable for ceramic production are not known. The analysis of pre-Columbian pottery suggests that these isolated deposits, many occurring in marshes, were utilized for pottery production by past people (Drewett 2000; Fitzpatrick 1996). To date, the evidence for historic use has been lacking.

On the eastern side of the island is the Scotland District, making up approximately 15 percent of the exposed landmass of Barbados. A rugged, rocky landscape of sandstone and other mixed deposits of terrestrial and marine origin characterizes this zone. Extensive clay deposits are common in this region, and the vast majority of historic potteries were recorded in or directly adjacent to the Scotland District (Scheid 2015). It was anticipated that Scotland District potteries would have been among the most likely sources for locally made earthenware for Trents plantation in the seventeenth to nineteenth centuries.

### Samples

The site now known as Trents Plantation was established in 1627, with occupation continuing through emancipation in 1838. Excavation by Douglas Armstrong began at Trents in 2012 and to date has focused on three main loci (Armstrong, this volume). The earthenware samples from Trents were selected by Doug Armstrong and were recovered from six distinct contexts within these loci, as described below (Table 14.1; Armstrong this volume).

Type	Country	Location	Context	Count
Unknowns (n= 117) <sup>1</sup>				
	Barbados	Trents (St. James)	Locus 1 Early Mansion	52
	Barbados	Trents (St. James)	Locus 2 House 1	13
	Barbados	Trents (St. James)	Locus 2 House 2	8
	Barbados	Trents (St. James)	Locus 2 House 3	24
	Barbados	Trents (St. James)	Locus 2 House 4	13
	Barbados	Trents (St. James)	Locus 3	4
	Barbados	Chalky Mount (St. Andrews)		3
Knowns (n=214) <sup>2</sup>				
	Great Britain	Buckley (Coal Measures)		22
	Great Britain	Liverpool (Coal Measures)		49
	Great Britain	Staffordshire (Coal Measures)		18
	Great Britain	Surrey-Hampshire		18
	Great Britain	London		45
	United States	Philadelphia-Baltimore-Alexandria		62

<sup>1</sup> For further information on Barbados samples, see McNamara 2016.

<sup>2</sup> For further information on reference samples, see Bloch 2015.

Table 14.1. *Earthenwares sampled.*

The earliest occupation investigated at Trents Plantation, which included the early mansion house and plantation core, was identified as Locus 1. This initial occupation, beginning in the 1620s, preceded intensification of sugar production on the plantation. At this time, a small group of indentured servants lived and labored in the plantation core, alongside the planter's family. Excavation at Locus 1 included a well stratified midden deposit adjacent to the extant main house. In the 1640s, sugar took hold in Barbados, which led to an expansion of the sugarworks near the Mansion and the move of enslaved laborers to a separate village to the east. Locus 1, within the plantation core, is closest to the sugarworks, which likely explains why there were so many industrial earthenwares present at this location.

The enslaved laborer village, Locus 2, was occupied from the mid-seventeenth century until emancipation. Within Locus 2, five distinct house assemblages have been excavated. Each house area consisted of one or more buildings and associated yard space. Additionally, there are several earthenware samples from the rock shelter that is linked to Trents Cave (Locus 3).

The samples from Trents represent the range of coarse earthenwares recovered within these domestic loci. The majority were domestic earthenwares such as cooking pots, bowls, and storage jars. Sugarwares found in these domestic spaces, including drip jars and sugar cones or molds, were also sampled. These industrial wares were far more common at the planter's midden, which was located in close proximity to the sugar works and factory. While less frequent in the village (Locus 2) they are present, and some are in forms that appear to have been used in water storage.

## Methods

Following the provenience postulate (Weigand *et al.* 1977), ceramic sourcing studies rely upon the principle that clays from different sources have distinct compositional signatures, and that these signatures remain within the fired ceramic bodies. These markers reflect the geological origins of the clay, which in most cases will map geographically onto the locations where the ceramics were produced. Due to the worldwide prevalence of clay suitable for earthenware manufacture, before the twentieth century most earthenware potters dug clay in the immediate vicinity of their potworks (Arnold 1985). In Barbados, evidence shows that this was true both prehistorically (Fitzpatrick 1996) and in the twentieth century (Handler 1963a:315).

Given the trade history of colonial Barbados, there were three potential primary sources for earthenwares: 1. local production in Barbados; 2. European, especially English, sources; and 3. production in other Caribbean and American colonies. Sourcing studies may identify the origins of artifacts in several ways: by comparing the unknowns to known raw materials or known products, or developing compositional groups within unknowns that can be used with additional lines of evidence to infer origin. For example, in prehistoric studies, the ‘criterion of abundance’ may be used to conclude that the most abundant ware type in a particular assemblage is a local product (Bishop *et al.* 1982:301). However, in the historic period, when ceramics were routinely traveling in large quantities through the Atlantic world, this criterion must be considered more critically. Instead, this study emphasized the use of known reference material from British and American production zones, alongside a few samples of unfired earthenware from Barbados. With this dataset, it was possible to begin to establish the universe of potential origins of these earthenwares. While not encompassing all possible production regions, the reference material established some of the primary compositional differences among earthenwares produced in Great Britain, the mainland American colonies, and Barbados.

To map chemical variation onto discrete sources, this study incorporated reference materials from a number of known historic kiln sites from Great Britain and mainland America (Table 14.1). The goal was not to tie vessels recovered in Barbados to individual pottery workshops, but to identify broader geographic and cultural regions known as production zones (Monette *et al.* 2007). Wasters, sherds of vessels that broke before leaving the production site, were analyzed to develop chemical ‘fingerprints’ for distinct production zones. For this project, the defined zones included four in Great Britain and one in North America. For a more detailed description of the production zones and samples, see Bloch (2015).

The Coal Measures macrogroup comprises products from three major earthenware industries in England and Wales, including Buckley, Liverpool, and Staffordshire. Coarse earthenwares from the Coal Measures geological region share a number of visual characteristics due to the shared geology and pottery technology. These wares are typically high-fired, may have marbled pastes mixing red and buff clays, and contain abundant quartz and ferruginous inclusions.

Two sites from Buckley in Northern Wales were sampled: Brookhill pottery, and Pinfold Lane. From the town of Burslem in Staffordshire, one of the six towns of Stoke-on-Trent, Swan Bank pottery was sampled. In the greater Liverpool area, domestic samples were taken from Prescott and Rainford. Over the course of the eighteenth century, Liverpool took on prominence as a port for the British colonies to trade their

goods, including sugar products. Potters there began producing sugar-refining wares for this industry. To capture potential variation in the earthenware recipe for industrial vessels in contrast to domestic vessels, 23 sherds of sugar cones and drip jars identified as Liverpool products were obtained from various assemblages at the Museum of Liverpool and were analyzed alongside the Barbados samples. Visually, these sherds fell into two categories. The first (n=14) were similar in appearance to ‘Buckley-type’ domestic wares from the Coal Measures, being highly fired, with marbled paste and abundant inclusions (Maryland Archaeological Conservation Laboratory 2011). Elementally, these industrial wares fit within the broad Coal Measures group. The second type of Liverpool sugarwares (n=9) had a softer body and fewer inclusions than typically seen in coarse earthenware from the Coal Measures, but the inclusions in at least one sample incorporated grog produced from a ‘Buckley-type’ vessel. These samples were elementally very different from the bulk of Coal Measures material, and seem to represent a distinct clay source or clay recipe used to produce sugar-refining wares in the Liverpool area. This subset of Coal Measures pottery was separated in this analysis into the ‘Liverpool’ production zone.

The London area also contributed to the colonial trade of coarse earthenwares. Earthenwares produced within the geological zone of the London Basin have a fine sandy texture, and have been called ‘Red Sandy Ware’ or ‘London-Area Post-Medieval Redware,’ among other names (Bloch 2015:100). They often have a dark firing core and brightly oxidized exterior surfaces. This study included reference material from three production sites in Harlow, Essex, and several sites from Woolwich in south London including the Teardrop pottery. London potters also produced sugar-refining wares, which have been found in British colonial contexts such as eighteenth-century Philadelphia (Bloch 2015:137). Samples were also selected from the Farnborough Hills kiln site as reference material for Surrey-Hampshire Border ware. This sixteenth and seventeenth century product is regularly found on early English colonial sites in the New World. It is typically buff in color with very few inclusions or no inclusions, and copper green or yellowish lead glazes (Pearce 1992).

In North America, reference materials from three prominent Mid-Atlantic towns were included: Philadelphia, Baltimore, and Alexandria. These towns were known to conduct intercolonial trade along the mainland coast and in the Caribbean (Shepherd and Williamson 1972; Steen 1999). Although I have previously demonstrated that Philadelphia can be reliably differentiated from the other Mid-Atlantic sources (Bloch 2016), as the goal of this initial study was to establish broad source attributions, combining them was advantageous. Overall, these production zones, representing the potential non-local origins of earthenwares in Barbados, are not exhaustive but offer a valuable starting position for characterizing and identifying these artifacts.

With only three samples from Chalky Mount, a contemporary pottery production site in Barbados, there was not enough reference material to define a Barbados production zone. It is possible to say that certain groups within the Trents Plantation samples are non-European, and ‘Barbados-like,’ but they cannot be absolutely identified as Barbados products. Samples from known historic production sites in Barbados such as Codrington and Colleton pothouses will be incorporated into future analyses in order to confirm the assignments of these vessels to Barbadian production.



Elemental analyses of the Barbados earthenwares were conducted by the author in the Mass Spectrometry lab at UNC-Chapel Hill in 2016. With the exception of the industrial Liverpool samples, all reference material had been previously analyzed, using the same methods, in 2014 (Bloch 2015, 2016). After being cataloged and photographed, a small fragment of each sherd was removed and smoothed with a tungsten carbide bit to present an even surface for analysis. Samples were then rinsed in deionized water, dried, and mounted on microscope slides.

An Excite 193 ultra short pulse excimer laser and ablation system (Teledyne/Photon Machines, Bozeman, MT), was coupled to an Element XR double-focusing magnetic sector field inductively coupled plasma-mass spectrometer (Thermo Fisher Scientific, Bremen, Germany) for analyzing each sample. During laser ablation, a laser beam vaporizes part of the solid sample and suspends it in a carrier gas to the plasma torch. The high heat of the plasma torch (7-10,000 Kelvin) atomizes the sample. These charged atoms are then sorted by mass-to-charge ratio. This analysis focused on the clay matrix. The laser ablation technique is especially effective for ceramics analysis because it can be used to individually sample the component parts of pottery, minimizing the dilution effects of inclusions or surface treatments on the signature of the clay matrix. Three ablation lines 600 $\mu\text{m}$  long and 110 $\mu\text{m}$  wide were placed on each sample using the integrated camera. The lines were set to avoid inclusions or voids greater than 30 $\mu\text{m}$  and any surface treatments.

Data were collected on 44 isotopes. The Gratuze method (Gratuze 1999) was used to convert elemental intensities to parts-per-million values, and sample replicates were averaged. NIST SRM 679 (Brick Clay) and NIST SRM 610 and 612 (Trace Elements in Glass) were used as reference standards for quantifying the elemental data. Each was analyzed at the beginning and end of each day, and after every 10-15 samples. The resulting values for the ceramic samples were then log-transformed and a variety of exploratory data analyses were conducted to identify core compositional groups within the data. All analyses were conducted in R (version 3.2.3).

## Results

To define the patterned variation within the samples from Barbados, it was necessary to establish their relationship to the known production zones. Principal components analysis was conducted on the full dataset of reference material and unknown samples ( $n=331$ ), using a subset of 12 elements that offered the best separation of groups (Figure 14.2a). While some Barbados samples overlapped with known production zones in the first two principal components, the majority fell outside of these groups into distinct clusters. Along principal component one (PC1), the Barbados samples appear to cluster into at least four groups. The samples were provisionally sorted into these four trial groups according to PC1 scores (Figure 14.2b). Outlying samples and those with strong group overlap were provisionally classified as unidentified.

Group membership was then evaluated for the Barbados samples by calculating posterior probabilities with Mahalanobis distances on the 12 principal components, within the full dataset of five known groups and 4 provisional Barbados groups. Jackknifing, a form of leave-one-out cross-validation, was performed as a conservative measure to calculate probabilities (Speakman *et al.* 2008:60). Outlying samples

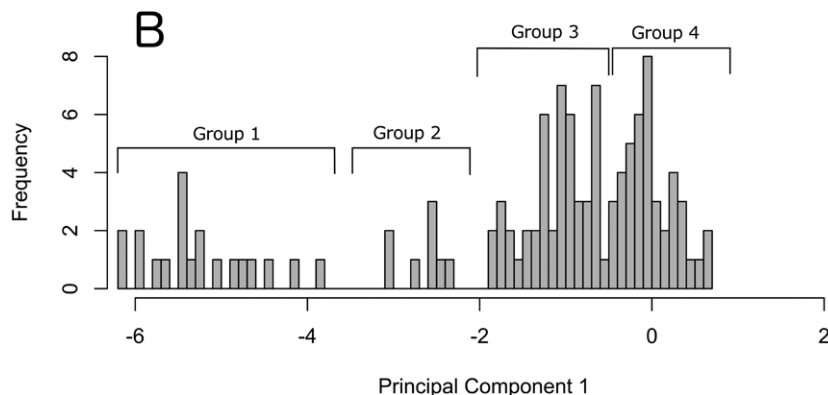
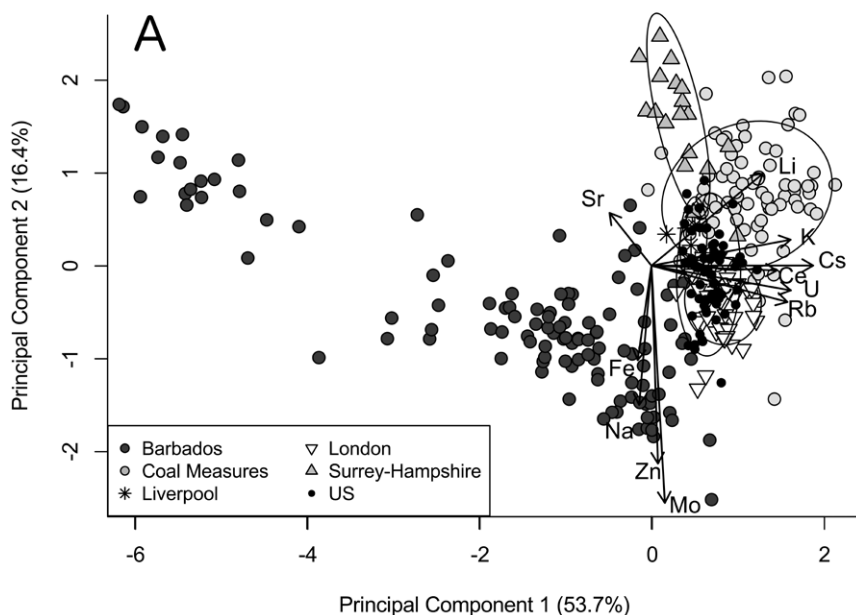


Figure 14.2a. Biplot of the first two principal components. Ellipses represent 90% confidence intervals for the known production zones.

Figure 14.2b. Histogram of the Barbados samples PC1 scores, showing division into four trial groups.

were removed and reinserted into the predicted groups until stable membership was achieved. Samples that had no probability of membership to any of the groups, and samples that could not maintain stable membership within a single group were classified as unassigned (n=13).

The elemental results confirmed that there were at least four distinct compositional groups within the Barbados samples that were not consistent with previously identified non-local groups (Figure 14.3, Table 14.2). For clarity I call these Barbados Groups 1-4, but emphasize that while they may well be of Barbadian origin, further testing is needed to confirm this attribution. Overall, only 11% of samples (n=13) could be reliably attributed to non-local sources. No Barbados samples had a predicted group membership to Surrey-Hampshire or to the Mid-Atlantic

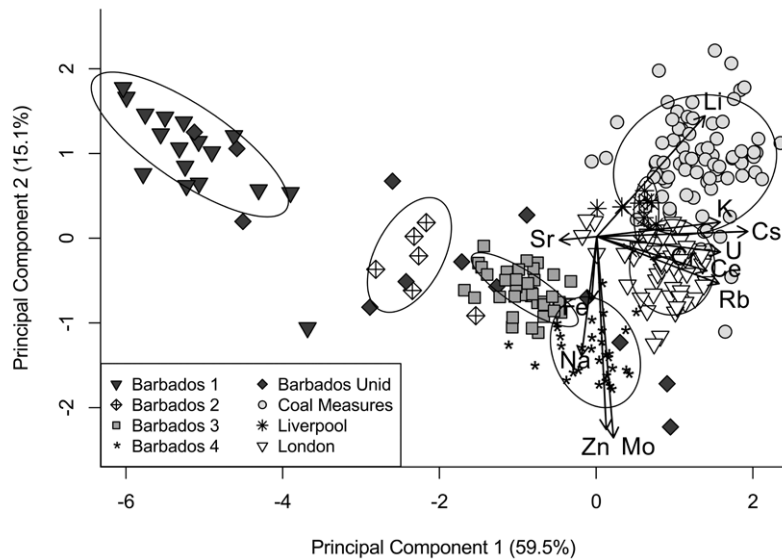


Figure 14.3. Principal components analysis biplot showing final group assignments. Ellipses represent 90% confidence intervals for the known production zones and Barbados groups.

Assemblage	Barbados 1	Barbados 2	Barbados 3	Barbados 4	Coal Measures	Liverpool	London	Unid	Site Total
Trents L1EarlyM	15	2	2	25	-	1	5	2	52
Trents L2House1	-	-	9	-	-	-	1	3	13
Trents L2House2	-	-	6	-	-	1	-	1	8
Trents L2House3	2	1	13	-	2	-	2	4	24
Trents L2House4	-	3	7	-	-	-	1	2	13
Trents Locus 3	-	-	-	4	-	-	-	-	4
Chalky Mount	-	-	-	2	-	-	-	1	3
Group Total	17	6	37	31	2	2	9	13	117

Table 14.2. Summary of Barbados assignments.

US region, so these reference groups were removed from subsequent analyses. The primary European source was London (n=9).

Barbados Group 1 (n=17) was visually and elementally distinctive. These sherds were low fired, hand-built, and heavily reduced. All but one were identified as cooking pot fragments and have exterior sooting. The sherds that comprise this compositional group were broadly consistent in production method and overall appearance with Afro-Caribbean ware found in other Caribbean locales (Heath 1999). They had very high density of inclusions. This is likely due in part to their function. Earthenware potters worldwide tend to have heavily tempered vessels for cooking, as the presence of inclusions within the clay matrix increases strength under thermal shock (Tite *et al.* 2001).

Chemically, sherds in this group tended to be much higher in elements such as calcium, and were depleted in many trace elements. Geological deposits of marine origin are typically very high in calcium and associated elements such as strontium. For this reason, some research projects have applied correction factors or removed these elements from

analysis (e.g.: Descantes *et al.* 2008). However, in this study, since the concentrations of these elements had meaningful variation, they were retained. This notable compositional difference may indicate that these vessels were produced from the local marsh clays derived from the limestone reef cap covering much of the island, rather than Scotland Series clays. Raw clays and prehistoric pottery associated with the Heywoods site, in the NW of Barbados near Trents Plantation, and the Silver Sands site in the south were found to be significantly higher in calcium than Scotland District clay deposits such as Chalky Mount (Fitzpatrick 1996). Mineralogy also confirmed that clays from Silver Sands were distinct from Scotland District clay deposits (Drewett 2000). Alternately, the compositional difference could be related to the inclusions. Though larger inclusions were avoided in the LA-ICP-MS analysis (those >30um), finely crushed limestone may still have contributed to the elemental signature of these sherds. It is also possible that these vessels came from another Caribbean location away from Barbados.

Barbados Group 2, 3, and 4 shared many visual similarities. They were wheel thrown, and most domestic vessels in these groups were lead glazed on one or more surfaces. The domestic sherds from these groups were also similar in thickness, averaging around 7mm. This is in contrast to the thicker Barbados 1 samples, which averaged over 9mm (Figure 14.4). Group 2, composed entirely of domestic sherds, was higher in potassium than Groups 3 and 4, but otherwise consistent. Groups 3 and 4 were the most elementally similar, although Group 4 samples were generally higher than other groups in major elements such as iron and sodium, as well as trace elements such as uranium and cerium. Whereas Groups 2 and 3 were almost entirely domestic wares, Group 4 consisted of half domestic wares and half industrial sugarwares. Notably, the two modern prepared samples of Barbadian clay from Chalky Mount Pottery had a predicted assignment to Barbados 4. The assignment of these samples to Group 4 was a strong indicator that Group 4 was a local Barbadian production group. By extension, because of the elemental similarities of Groups 2, 3, and 4, this lends evidence to the idea that these three groups are all Barbadian. The town of Chalky Mount is located within the Scotland District, and the potter Mr. John Springer, who provided the samples, obtains his clay locally (McNamara 2016:xiii). Given their elemental composition, it is likely that many of the unidentified sherds were local Barbadian products. It is also possible that there are few latent English sherds among these samples, from production zones that were not represented in this analysis, such as Bristol and North Devon. In particular, it is documented that the port of Bristol was active in the Barbados sugar trade (Handler 1963b), though no Bristol earthenware products have been identified on the island.

When comparing the samples by locus and house, several trends emerged that added a clear temporal dimension to the data (Table 14.2). The sherds within the Barbados 1 core group, which were hand-built cooking pots, were predominantly from the earliest context, the Mansion House. Barbados 4 samples were also found only in early contexts: Locus 1 Mansion House and the rock shelter. The absence of this group in Locus 2 contexts indicated a shift in local procurement of earthenware among Trents households away from this source during intensification. When slave housing moved from the plantation core to the periphery, the available earthenware also changed. This was a shift not only in source, but in form, as hand-built cooking pots were also lacking in Locus 2 (except for a single sherd at House 3).

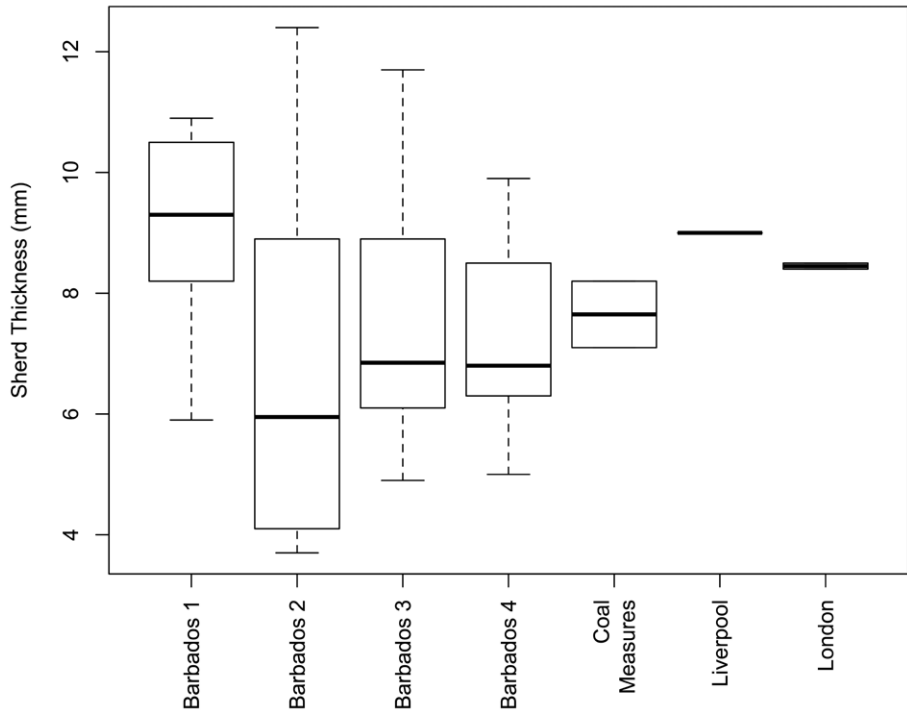


Figure 14.4. Boxplots of domestic sherd thickness by compositional group.

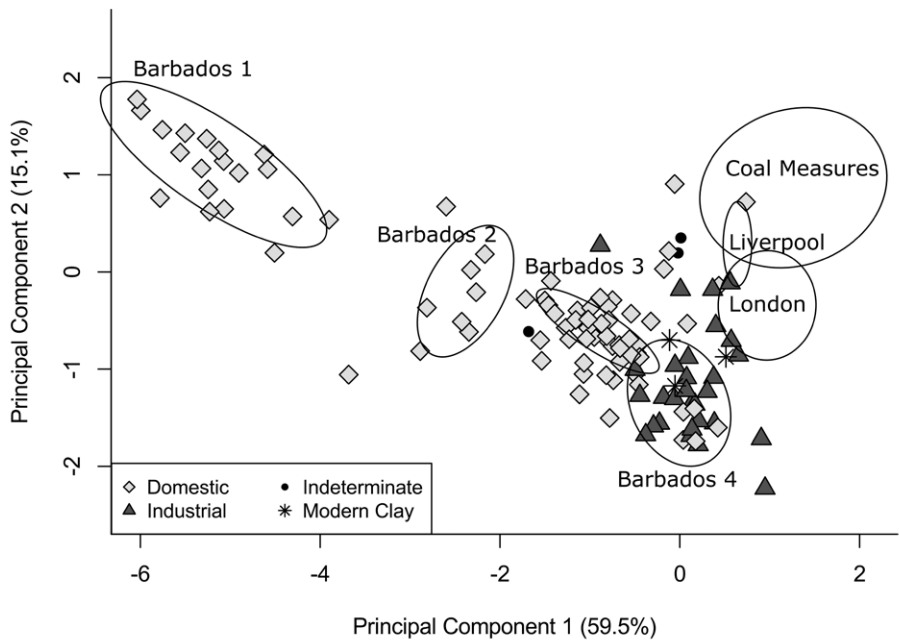


Figure 14.5. Principal components analysis plot of Barbados samples by vessel type. Ellipses represent 90% confidence intervals for compositional groups.

Barbados 2 was comprised of domestic samples across Locus 1 and 2, as was Barbados 3. As discussed above, these two groups were very similar and may merely be examples of slightly different recipes from nearby potteries or even the same pottery in the Scotland District. Given that they overlap at the same house sites, the difference between these groups was likely not temporal. Thus, Barbados 1 and 4 may be characterized as early groups, and Barbados 2 and 3 as later production groups. It was notable that the modern clay from Chalky Mount was most similar to the earliest historic pottery at Trents, rather than the nineteenth century wares. This suggests ongoing extraction of the Chalky Mount clay source over the historic period, but also marks distinct production sources available to Trents plantation residents at different points in time.

When the samples were coded by vessel type, it was evident that the sources for industrial wares in Barbados were different from those for domestic wares (Figure 14.5). London and Barbados 4 were the only identified groups for industrial wares. Industrial wares were found in far fewer quantities at Locus 2 than Locus 1, so it was difficult to make a direct temporal comparison. However, it appeared that the early sugar industry at Trents utilized London cones and drip jars as well as locally produced ones, from the Barbados 4 production zone. A single Locus 2 House 1 drip cone fragment was also sourced to London, but the remaining Locus 2 industrial samples ( $n=4$ ) were unidentifiable.

## Discussion

As hypothesized, the elemental results indicated that the majority of coarse earthenwares found at Trents Plantation in Barbados were most likely local to Barbados. It had been thought that the production of domestic earthenwares was ancillary to the production of industrial sugarwares for plantation use. Instead, this evidence showed that domestic earthenwares were extensively used by plantation residents, and thus likely were commonly made and marketed across the island.

The distinct qualities of handmade versus wheel thrown vessels are evidence that these products are the result of two disparate systems, with indications that Barbados Type 1 was a small-scale, perhaps household-made product, manufactured with different materials than those utilized for European-style products. These vessels, produced without the use of a pottery wheel or kiln, may represent local production of domestic necessities prior to the inception of English pottery workshops in Barbados. Before the late seventeenth century, sugar molds were more commonly made from wood than ceramic (Handler 1963b), so there was not the same market for locally production in the early years of sugar intensification as there would be by the turn of the eighteenth century.

Future research will expand the sampling of earthenwares at Trents to better quantify the variation in industrial earthenwares over time. Furthermore, samples from historic production sites in Barbados, along with fired earthenwares from modern Chalky Mount pottery will be included to better represent the known production zones on the island. Finally, the analysis of earthenwares from plantations across the island should be included to determine whether the patterns seen at Trents Plantation are consistent with that at other plantations.

The dominance of industrial manufacturing in Great Britain meant that Barbadian planters had a ready source for industrial ceramics needed for sugar production as well

as domestic wares. Potentially some planters, maintaining close economic relationships with Great Britain, may have chosen to rely upon imported earthenwares even though locally made ones were available. Documentary evidence shows that some planters in the mid-eighteenth century were continuing to order imported sugarwares (Handler 1963a:136). More research is needed to link British ports and Barbadian plantations to better understand the trade network and market pressures for these goods.

Other plantations may have entirely eschewed imported coarse earthenwares. The ceramic evidence shows that at Trents, and likely for many plantations in Barbados, local European-style products largely supplanted British imports from the start. At Trents Plantation, further work needs to be done to firmly establish which compositional groups are Barbadian, and which are European, but at this stage it seems that locally made European-style wares dominated the assemblages. At the same time, there are clear temporal shifts in the use of wares from distinct local sources in Barbados at Trents. The earliest occupation phase was dominated by hand built coarse earthenware vessels and vessels compositionally related to modern Chalky Mount Pottery. By the height of occupation in the eighteenth century in the slave village (Locus 2), wheel thrown domestic wares from different Barbadian sources or recipes were standard. Given these initial patterns, the pressures of local market forces should be further investigated, as plantation- and assemblage-specific sources show spatial and temporal variation in the local coarse earthenwares being produced or marketed on these islands. These ceramics shed light on their enslaved makers and users, serving as a proxy for understanding the depth of engagement in home production, local markets, and global trade.

## Acknowledgements

Analysis of reference materials was supported by a Dissertation Fieldwork Grant from the Wenner-Gren Foundation. Thanks to Sohrab Habibi and Brandie Ehrmann for use of the Mass Spectrometry lab at UNC-CH. Elizabeth Stewart at the Museum of Liverpool kindly facilitated the loan of their materials. The analysis of the Barbados samples was supported by an award from the National Science Foundation (PI Douglas Armstrong, #1414512). Archaeological fieldwork that recovered the data was sponsored by the National Science Foundation (Douglas Armstrong, PI) along with two grants to Armstrong from National Geographic and two grants from the Wenner-Gren Foundation. Analysis of materials including research involving the selection of samples was supported by a research grant from Syracuse University. Thanks also to Lynsey Bates and Rob Philpott for their help in the early stages of this project. All errors are my own.

## References

- Armstrong, D.  
2015a Archaeology of the enslaved laborer settlement at Trents Plantation: 2014-2015. *Journal of the Barbados Historical Society* 61:146-177.  
2015b Cave of iron and resistance: a preliminary examination. *Journal of the Barbados Historical Society* 61:178-199.

- 2019 (in press) Dutch economic influences in early seventeenth century settlement and the shift to Sugar slavery and capitalism in Barbados. In *Power, Political Economy, and Historical Landscapes of the Modern World: Interdisciplinary Perspectives*, edited by C. DeCorse. Braudel Center Publications, Binghamton University, Binghamton, New York.
- Armstrong, D. and M. Reilly.  
2014 The archaeology of settler farms and early plantation life in seventeenth-century Barbados. *Slavery & Abolition* 35/3:399-417.
- Arnold, D.  
1985 *Ceramic Theory and Cultural Process*. Cambridge University Press, Cambridge.
- Beckles, H.  
2006 *A History of Barbados from Amerindian Settlement to Caribbean Single Market*. Cambridge University Press, Cambridge.
- Bishop, R., R. Rands, and G. Holley.  
1982 Ceramic compositional analysis in archaeological perspective. In *Advances in Archaeological Method and Theory*, edited by M. Schiffer, pp. 275-330. Academic Press, New York.
- Bloch, L.  
2015 Made in America? Ceramics, Credit, and Exchange on Chesapeake Plantations. PhD dissertation, Anthropology Department, The University of North Carolina at Chapel Hill.  
2016 An elemental approach to the distribution of lead-glazed coarse earthenware in the eighteenth-Century Chesapeake. *American Antiquity* 81/2:231-252.
- Descantes, C., R. Speakman and M. Glascock.  
2008 Compositional studies of Caribbean ceramics: an introduction to Instrumental Neutron Activation Analysis. *Journal of Caribbean Archaeology* Special Publication 2:1-14.
- Drewett, P.  
2000 *Prehistoric Settlements in the Caribbean: Fieldwork in Barbados, Tortola and the Cayman Islands*. Archetype Publications, London.  
2002 *Amerindian Stories: An Archaeology of Early Barbados*. Barbados Museum and Historical Society, Bridgetown.  
2007 *Above Sweet Waters: Cultural and Natural Change at Port St. Charles, Barbados c. 1750 BC-AD 1850*. Archetype Publications, London.
- Farmer, K.  
2011 Women potters? A preliminary examination of documentary and material culture evidence from Barbados. *History in Action* 2/1:1-8.
- Finch, J.  
2013 Inside the pot house: diaspora, identity, and locale in Barbadian ceramics. *Journal of African Diaspora Archaeology and Heritage* 2/2:115-130.



- Fitzpatrick, S.  
 1996 Analysis on the elemental composition of ceramics in Barbados during the Saladoid and Suazoid Period. MA thesis, Anthropology Department, University of Montana.
- Gibble, P.  
 2001 Continuity, Change, and Ethnic Identity in 18th-Century Pennsylvania Red Earthenware: an Archaeological and Ethnohistorical Study. PhD dissertation, Anthropology Department, American University, Washington DC.
- Gratuze, B.  
 1999 Obsidian characterization by LA-ICP-MS and Its application to prehistoric trade in the Mediterranean and the Near East: sources and distribution of Obsidian within the Aegean and Anatolia. *Journal of Archaeological Science* 26:869-881.
- Handler, J.  
 1963a A historical sketch of pottery manufacture in Barbados. *The Journal of the Barbados Museum and Historical Society* 30/3:129-153.  
 1963b Pottery making in rural Barbados. *Southwestern Journal of Anthropology* 19:314-334.  
 1977 Amerindians and their contributions to Barbadian life in the seventeenth century. *Journal of the Barbados Historical Society* 35:189-210.
- Harlow, V.  
 1925 *Colonizing expeditions to the West Indies and Guiana 1623-1667*. Vol. 56. Hakluyt Society, London.
- Hauser, M.  
 2008 *An Archaeology of Black Markets: Local Ceramics and Economies in Eighteenth-Century Jamaica*. University Press of Florida, Gainesville.
- Heath, B.  
 1999 Yabbas, monkeys, jugs, and jars: local pottery production and Its meaning. In *African Sites: Archaeology in the Caribbean*, edited by J. Havisser, pp. 196-220. Markus Wiener Publishers, Princeton.
- Lawrence, J., K. Marsaglia and S. Fitzpatrick.  
 2016 Petrographic analysis of pre-Columbian pottery from four islands in the Lesser Antilles and implications for inter-island transport and interactions. *Journal of Archaeological Science: Reports* 9:663-680.
- Loftfield, T.  
 2001 Creolization in seventeenth century Barbados. In *Island Lives: Historical Archaeologies of the Caribbean*, edited by P. Farnsworth, pp. 207-233. University of Alabama Press, Tuscaloosa.
- Maryland Archaeological Conservation Laboratory.  
 2011 Buckley-Type. *Diagnostic Artifacts in Maryland*. Available online at: <http://www.jefpat.org/diagnostic/ColonialCeramics/Colonial%20Ware%20Descriptions/Buckley.html> (accessed May 10, 2017).

- McNamara, S.  
 2016 *Sourcing the Sherds: An Analysis of Coarse Earthenware Ceramics from Trents Plantation in Barbados*. Senior Capstone, Syracuse University, Syracuse.
- Monette, Y., M. Richer-LaFleche, M. Moussette, and D. Dufournier.  
 2007 Compositional analysis of local redwares: characterizing the pottery productions of 16 workshops located in southern Quebec dating from the late seventeenth to late nineteenth Century. *Journal of Archaeological Science* 34:123-140.
- Pearce, J.  
 1992 *Border Wares: Post-Medieval Pottery in London 1500-1700*. HMSO, London.
- Scheid, D.  
 2015 *The Political Economy of Ceramic Production in Barbados: from Plantation Industry to Craft Production*. PhD Dissertation, Syracuse University, Syracuse.
- Shepherd, J., and S. Williamson.  
 1972 The coastal trade of the British North American colonies, 1768-1772. *Journal of Economic History* 32/4:783-810.
- Spavold, J., and S. Brown.  
 2005 *Ticknall Pots and Potters*. Landmark Collectors Library. Landmark Publishing, Ashbourne.
- Speakman, R., M. Glascock, and V. Steponaitis.  
 2008 Geochemistry. In *Woodland Pottery Sourcing in the Carolina Sandhills*, edited by J. Herbert and T. McReynolds, pp. 56-72. Research Report No. 29. Research Laboratories of Archaeology, University of North Carolina at Chapel Hill.
- Steen, C.  
 1999 Pottery, intercolonial trade, and revolution: domestic earthenwares and the development of an American Social Identity. *Historical Archaeology* 33/3: 62-72.
- Stoner, M.  
 2000 *Codrington Plantation: A History of a Barbadian Ceramic Industry*. MA thesis, Armstrong Atlantic State University, Savannah, Georgia.
- Tite, M., V. Kilikoglou, and G. Vekinis.  
 2001 Strength, toughness, and thermal shock resistance of ancient ceramics, and their influence on technological choice. *Archaeometry* 43:301-324.
- Weigand, P., G. Harbottle, and E. Sayre.  
 1977 Turquoise sources and source analysis: Mesoamerica and the southwestern U.S.A. In *Exchange Systems in Prehistory*, edited by T. Earle and J. Ericson, pp. 15-34. Academic Press, New York.

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# Colonial Foodways in Barbados

## A Diachronic Study of Faunal Remains from Trents Plantation, Seventeenth- Nineteenth Centuries

*Diane Wallman*

### **Abstract**

Zooarchaeological studies offer unique insight into historical foodways when the documentary record is limited or biased. This chapter presents results from the only zooarchaeological research on a colonial period plantation in Barbados, Trent's Plantation. Trent's Plantation was one of the earliest sugar estates on the island of the Barbados, and operated from the seventeenth through nineteenth centuries. Faunal remains were recovered from middens adjacent to the estate house, and in small trash deposits associated with slave quarters. The sample represents a diachronic and spatial study of subsistence throughout the occupation of the plantation. The faunal materials recovered include primarily domestic mammals, birds, mollusks and land crab.

**Keywords:** *plantation archaeology, foodways, zooarchaeology.*

### **Introduction**

If you ask a Bajan about traditional island cuisine, they might list a variety of dishes that you can find in a local shop or on the dinner table. These foods will likely include flying fish, cou-cou, pudding and souse, fish cakes, pepper pot, salt bread or sea egg, amongst many other common meals. Like many Caribbean islands, the people of Barbados take pride in their unique foodways. This value placed on food traditions is one of the most salient aspects of culture, as anthropologists have repeatedly shown how food is 'a particularly potent symbol of personal and group identity, forming one

of the foundations of both individuality and a sense of common membership in a larger, bounded group' (Wilk 1999:245). In the colonial Caribbean, the origins of modern cuisine lie in the complex interactions that occurred between diverse groups of people within particular geopolitical and ecological circumstances. Here, I present results from the only zooarchaeological analysis of plantation subsistence from Barbados, to explore foodways on a seventeenth-nineteenth century sugar plantation. This research allows for a greater understanding of social relationships, power structures, economic practices and cultural transformation in colonial Barbados.

While the planter class in the Caribbean had control over their subsistence choices, the enslaved peoples who labored on plantations were severely constrained by their subjugation. Despite living in bondage, however, enslaved individuals on Caribbean plantations developed resilient subsistence traditions as a way to survive, maintain community cohesion, and subvert the power structure of plantation slavery. Historians and anthropologists, for example (Beckles 1991; Benoit 2007; Berlin and Morgan 1993; Marshall 1991; Mintz and Price 1976; Pulsipher 1990), argue that provision grounds and yard gardens on plantations were an important space within enslaved communities in the Caribbean that allowed:

*'practices, values and interests to emerge and develop and to assume autonomous forms of organization and expression'* (Tomich 2004:234).

The importance of yard gardens and provision grounds to enslaved peoples reflects the necessity of food for survival, as well as the symbolic power of foodways within these food-insecure communities. Additionally, marketing the products of their provision grounds and gardens, as well as livestock and other goods, offered enslaved peoples some level of economic autonomy (Handler and Wallman 2014). Through examining the historical development of subsistence practices on plantations, we gain insight into localized experiences, adaptations, and resiliency during the colonial period in the Caribbean.

Reconstructing colonial foodways from the historical record remains a challenge, as contemporary accounts of daily practices on plantations are rare, incomplete, and often biased. The documentary record provides some insight into the diets of the planter class, with limited references to enslaved laborer provisioning. Zooarchaeological research offers a window into colonial period foodways, as it allows us to examine the daily lives of enslaved laborers, indentured servants, and also plantation owners/managers. Published studies of faunal remains from plantations in the Caribbean are rare, but these studies provide unparalleled perspectives into the past (Armstrong 1990, 2003; Kelly and Wallman 2014; Klippel 2001; Tomadini *et al.* 2014; Wallman and Grouard 2017; Wilkie and Farnsworth 2005). Further, while archaeological research has occurred on plantations in Barbados (e.g.: Armstrong and Reilly 2014; Bergman 2013; Farmer 2011; Finch 2013; Finch *et al.* 2013; Handler and Lange 1978; Handler *et al.* 1989; Loftfield 1996/97, 2001; Shuler 2011), there have been no systematic analyses of faunal remains until now. This study examines seventeenth through nineteenth century foodways at Trent's plantation in St. James Parish to understand how provisioning systems developed over time, and differed between planters and enslaved peoples on a mixed-crop farm turned sugar estate on the island of Barbados. Through



Figure 15.1. 'A Topographical Description and Admeasurement of the Yland of Barbados in the West Indyaes : With the Mrs. Names of the Seureall Plantacons' (Ligon 1657:1). Courtesy of the British Library.

reconstructing the diverse strategies developed by enslaved laborers, indentured servants and the proprietors of the estate, this study provides a local context to understand the origins of modern food traditions on Barbados.

The island of Barbados is 430 km<sup>2</sup> with low-lying topography, and is currently one of the most densely populated countries in the world. Barbados is comprised primarily of limestone, with a very narrow continental shelf surrounded by deep water, providing access to hundreds of species of fish, shellfish and marine fauna. The island's rich, fertile soils offered ideal conditions for the sugarcane cultivation. In 1627 the British colonized Barbados, and the island was established as one of the first permanent, agricultural islands in the Caribbean. During the early years of settlement, like many Caribbean colonies, the economy in Barbados focused on the small-scale production of food crops for local consumption and export crops including tobacco, coffee, and indigo. Farms were small, primarily mixed-crop ventures, and European indentured servants were a major part of the labor force. Beginning in the 1630s, the population of Barbados increased significantly, mostly through an influx of indentured servants hoping to acquire land after the expiration of their term. Others, however, were criminals, 'vagrants' or political activists who were rounded up and sent out of British cities and transported to the colonies (Palmié 2013:157). Sugar plantations were first established by English settlers in the 1640s, and Barbados became an early and dominant sugar producing island in the Caribbean. Due to this early focus on sugar, which relied

heavily on slave labor, the colony was the first Caribbean island with institutionalized slavery as the foundation of its economic system (Beckles 2013:223). The number of indentured servants decreased to less than 2,400 by 1680, as the number of enslaved increased to over 46,000, with an additional 60,000 African captives brought to the island by 1700 (Palmié 2013:157).

Barbados became one of the foremost producers and exporters of sugar in the seventeenth and eighteenth centuries. The push for sugar production and ensuing development of large plantations quickly encompassed most of the island's landscape, and by the end of the seventeenth century, most of the forests in Barbados had been replaced with sugar cane fields (Handler and Wallman 2014; Richardson 1997:103). With the European settlers came the introduction of non-native flora and fauna, including old world sheep, goat, cattle, pig, horses, rabbits, donkeys and camels, as well as turkey (see Figure 15.1, Ligon 1657). Due to land clearance for sugar cultivation, and the compounding impact of the introduction of large herbivore domesticates to the island, only isolated pockets of natural forest remained in Barbados by 1665 (McGregor 2013:57).

### **Provisioning on Barbados**

From the eighteenth through nineteenth centuries, provisioning varied throughout the British colonies (Handler and Wallman 2014). Abolitionist James Stephen (1824-30, 2, p. 261) distinguished between 'home-fed' and 'foreign-fed colonies' under the British Crown. According to Stephen, Barbados was of a 'middle character', where rations were consistently provided, but a portion of foodstuffs were produced locally. This situation was similar on many of the Windward Islands, where foods were imported and rationed, but enslaved populations were also allotted small plots of land by their houses, and larger communal provision grounds. Provision grounds were situated in marginal areas on the plantation, where enslaved community worked collectively to grow their own food as part of their labor assignments. Some accounts of Barbados suggest that in general, as land became increasingly valuable for cane agriculture into the eighteenth century, imported foods provided the majority of the subsistence for enslaved peoples and planters (Berlin and Morgan 1993:7). Planters focused on maximizing profits on sugar plantations, and did not want to sacrifice any suitable land for sugar cane production. The diet of the enslaved in Barbados, according to the historical record, was primarily vegetable, consisting of root crops ('ground provisions') such as sweet potatoes, yams, and eddoes, as well as 'Guinea' corn (sorghum), and some maize ('Indian' corn) (Handler and Wallman 2014). After emancipation, the island remained focused on sugar production and employers were expected to continue providing material subsistence for apprentices, which included 2lbs of salt fish per week (Beckles 2004:31).

A sampling of several accounts of the island from different periods offer some detail on the provisioning system on Barbados throughout the plantation era. Ligon's (1657) account of his two years on Barbados from 1648-1650 describes early subsistence on the island. He notes that manioc (typically in bread form) and corn were the primary dietary staples on the island. He observed that 'hogges flesh is the most general meat' (Ligon 1657:175), and that beef was rare during this time. Common fauna consumed

by planters, according to Ligon, included Muscovy ducks, chicken (and chicken eggs), pigeon, rabbits, green turtle, and fish for those who lived along the coast. Salted beef, pork, salt fish ('ling, haberdine, poor-john, pickled mackerel and herring'), and pickled turtle were staple imports for the colony. He observed that typically enslaved people were rationed two 'maquerels' per week (allotted on Sundays), plantains, and the leftover portions of any horses, cattle or other animals that had died naturally.

Visiting the island in 1796, Pinckard (1806:368) noted:

*'it is common for the slaves to plant fruits and vegetables, and to raise stock. Some of them keep a pig, some a goat, some Guinea fowls, ducks, chickens, pigeons, or the like.'*

The marketing of these products became essential for enslaved peoples. As observed by Pinckard (1806:369-370):

*'independent of their own provisions, either raised or purchased, each negro has his weekly allowance issued to him, every Sunday, from the estate; and hence they are at liberty to take the whole of their own private stock to market, and to procure whatever additional comforts they prefer with the money it produces.'*

In 1820, Waller (1820:8) visited the island, observing that meat was difficult to get, but common protein included mutton, goat, poultry, guinea fowls, turkey, fish and turtle. He also noted that plantains substituted for bread, and that, yam, potato, and Indian corn were common (the latter among the enslaved population). He makes a particular note of land crabs, which he says are a delicacy. When invited for dinner by a planter, he was presented with goat, potatoes, suckling pig, mullets, maquerels, parrotfish, snappers, cavallos, terbums, crabs, lobsters and conyfish.

Historical records suggest that from the moment of settlement in the seventeenth century, Barbadians fished along the coast. During the earlier colonial era, most fishers were poor white males, either indentured or free. Over time, however, owners released their enslaved laborers to fish, leading to the development of a specialized class of fisherman. These fishermen usually worked for the benefit of their owners, and in 1788, the island's governor reported there were 'maybe' about 500 enslaved fishermen (quoted in Handler 1970:55). The flying fish (*Hirundichthys affinis*) is the species most commonly mentioned in historical accounts, and remains a popular and symbolic food on the island. As reported by an early visitor to the island,

*'the Negroes take them after the example of the Charaibs [sic] very successfully in the dark; they spread . . . their nets before a light, and disturb the water at a small distance; the fish rising eagerly fly toward the light, and are intercepted by the nets'* (quoted in Handler 1970:58).

Generally, fishing was accomplished by use of poison, or hand trapping with small hoop nets; later, fish were procured using large dragnets or seines, or hook and line from boats (Handler and Wallman 2014).

## Zooarchaeology of Trent's Plantation

Trent's Plantation was one of the earliest sugar estates on the island of the Barbados, and operated from the seventeenth through nineteenth centuries. The estate was established in 1627 in St. James Parish, which was comprised of small 10-20 acre farms before being transformed into sugar plantations. In 1641, a deed and mortgage indicate the farm produced mostly cotton and tobacco, and indentured servants supplied most of the labor. In 1643, the farm was under transition, with more of a mix of enslaved and indentured laborers. The deed in 1669 shows an established sugar estate with 50 enslaved laborers, and no indentured servants. The population of enslaved peoples on the estate increased to 160 in the eighteenth century, and further to 167 around emancipation (1838) (Armstrong and Reilly 2014). During this early and transitional period, the planters, indentured servants and enslaved laborers likely lived close quarters around the estate house (Armstrong and Reilly 2014).

Archaeological research at the site investigated this transition from small, mixed crop farming to sugar monoculture. Excavations were conducted in areas adjacent to the estate house and within the slave village. When the farm was first established, it is likely indentured servants and enslaved laborers lived in close quarters. The material data indicates that there were close relationships among the enslaved laborers, indentured servants and planter during the early period. Testing near the estate house located dense midden deposits with good faunal preservation, representing subsistence practices of the planter, but also the early-mid seventeenth century diets of the indentured servants and enslaved laborers on the farm. With regard to the faunal samples from the areas associated with the estate houses, it is difficult to ascertain the origin of the deposits, that is, *exactly* who on the plantations consumed these resources. The food was very likely prepared by enslaved or indentured cooks, and could represent the consumption patterns of the planters, indentured servants, the enslaved, or an amalgamation of all three. After the introduction of sugar, however, spatial settlement shifted at the site, with the development of a distinct enslaved laborer settlement on the plantation separate from the estate house (Armstrong and Reilly 2014). Testing in the slave village identified small domestic trash deposits associated with house areas,

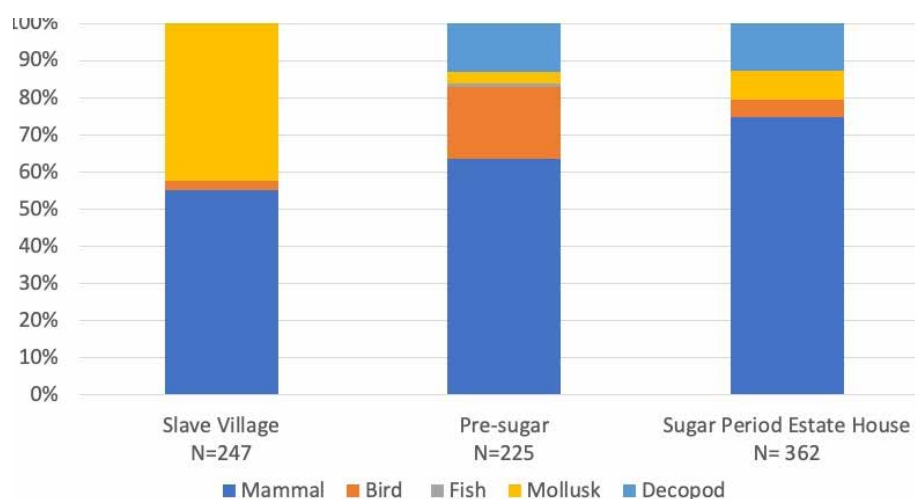


Figure 15.2. Relative abundances of identified animal classes by context.



which included small samples of faunal remains, representing the diets of the enslaved peoples during the period of sugar production.

The methods used in faunal analysis involved standard zooarchaeological techniques (Reitz and Wing 2008). To ensure reliable interpretations, cultural and non-cultural taphonomic processes affecting the deposits were recorded. Skeletal part and symmetry were assessed for each specimen and the remains were identified to the lowest taxonomic category possible, using the comparative collection and the aforementioned reference materials (Wallman, Armstrong and Miller 2017).

The faunal sample (N=835) discussed here comes from both pre-sugar and sugar period contexts on the plantation (see Figure 15.2, Table 15.1). The majority of the faunal remains (70%) were recovered from the midden deposits associated with the estate house on the plantation. These sediments were rich in cultural and faunal material, and the bone was very well-preserved, with only 17% of the specimens showing patterns of decomposition or weathering. For this study, the remains from the estate house midden deposits are partitioned into two periods: the pre-sugar context (1620s-1640s), and the sugar context (1640s through emancipation in 1838). The faunal sample from the slave village comes from four house areas in the slave village. The cultural materials suggest that these quarters were occupied from the late seventeenth through mid-nineteenth century. The materials from the slave village were not well-preserved, with teeth comprising 86% of the identifiable mammalian specimens, and a high incidence of weathering and decomposition (30% of the specimens). Due to this taphonomic trend, and to the low rate of identifiability of the non-tooth vertebrate remains from the slave quarters (93% of the remains were too fragmented to identify beyond class), the samples from the enslaved laborer contexts are presented here as a whole collection, rather than partitioned into household units.

The overall results from the site assemblage indicate that the local husbandry of domestic mammals, including cattle, pig, sheep and goat, as well as domestic chicken, occurs very early in the plantation's history, before the establishment of sugar monoculture. These species are all present in the earliest deposits, and the presence of skeletal elements from the head, bodies and lower limbs of cattle, sheep/goat and pig (Table 15.2) suggests that at least some of these animals were raised locally. Invertebrate remains, including a variety of crabs and shellfish, were recovered at the site, but vary in ubiquity and abundance throughout the deposits. The samples from the slave quarters, for example, did not include any terrestrial crabs, of which several species were identified throughout the estate house midden. Mollusks, however, were more common and diverse in the slave village deposits. Only two fish species were identified, both from the pre-sugar estate house context. European hare (*Lepus europaeus*) was also identified from the sugar period of the plantation. The data also indicate the very early introduction of Old World rodents (mice and rats); and, also the importation of both cat and dog in the seventeenth century.

## Discussion

The archaeological record suggests a very early focus on domesticated ruminants at Trent's Plantation. Historical documents indicate that English settlers imported a variety of Old World taxa to the island, and the early establishment of local populations of

Taxon	Common Name	Slave Village				Pre-Sugar Occupation				Sugar Period Estate House				TOTAL		
		NISP	%NISP	MNI	NISP	%NISP	MNI	NISP	%NISP	MNI	NISP	%NISP	MNI	NISP	NISP	NISP
Acanthuridae	Surgeonfish	0	0%		1	0%	1	0	0%	1	0	0%	0	0%	1	1
Sphyraenidae	Barracuda	0	0%		1	0%	1	0	0%	1	0	0%	0	0%	1	1
<i>Gallus gallus</i>	Domestic Chicken	2	1%	1	29	12%	3	9	2%	3	9	2%	2	1%	40	40
UNID Aves	Bird	4	2%		1	0%		2	1%		2	1%			7	7
<i>Mus sp.</i>	Mouse	0	0%		0	0%		2	1%		2	1%			2	2
<i>Rattus sp.</i>	European Rat	3	1%	1	0	0%		2	1%		2	1%			5	5
<i>Lepus europaeus</i>	European Rabbit	0	0%		0	0%		1	0%		1	0%			1	1
<i>Bos taurus</i>	Cattle	4	2%	2	11	4%	2	39	11%	2	39	11%	3	54	54	54
<i>Ovis/Capra</i>	Sheep/Goat	13	5%	3	7	3%	2	18	5%	2	18	5%	3	38	38	38
Medium Bovid		0	0%		0	0%		1	0%		1	0%	4	1	1	1
<i>Sus scrofa</i>	Pig	30	12%	5	13	5%	3	34	9%	3	34	9%		77	77	77
Medium ungulate	Pig/Sheep	0	0%		1	0%		2	1%		2	1%	1	3	3	3
<i>Felis cattus</i>	Dog	0	0%		2	1%	1	2	1%	1	2	1%	2	4	4	4
<i>Canis familiaris</i>	Cat	1	0%	1	5	2%	2	25	7%	2	25	7%	5	31	31	31
UNID very small mammal	Rat-sized	1	0%		3	1%		3	1%		3	1%		7	7	7
UNID small mammal	Cat-sized	2	1%		0	0%		3	1%		3	1%		5	5	5
UNID small/medium mammal	Dog-sized	0	0%		28	11%		24	7%		24	7%		52	52	52
UNID medium mammal	Pig/sheep-sized	78	32%		60	24%		57	15%		57	15%		195	195	195
Very Large Mammal	Cattle sized	5	2%		23	9%		60	16%		60	16%		88	88	88
UNID Mammal		0	0%		0	0%		3	1%		3	1%	2	3	3	3
Bivalve		14	6%		0	0%		3	1%		3	1%		17	17	17
Artidae	Ark	2	1%	3	0	0%		1	0%		1	0%	2	3	3	3
<i>Codakia orbicularis</i>	Tiger Lucine	5	2%	6	0	0%		2	1%		2	1%	1	7	7	7

<i>cf. Lucina pensylvanica</i>	Pennsylvania lucine	4	2%	9	0	0%	1	0%	5
Lucinidae	Lucine Clam	10	4%	14	1	0%	0	0%	11
Pectinidae	Scallop	1	0%	1	0	0%	0	0%	1
Gastropod	Gastropod	37	15%	3	3	1%	7	2%	47
<i>Neritina sp.</i>	Nerite	2	1%	0	0	0%	0	0%	2
Fissurellidae	Limpet	2	1%	0	0	0%	0	0%	2
<i>Cittarium pica</i>	West Indian topshell	8	3%	9	1	0%	0	0%	9
<i>Lobatus gigas</i>	Queen Conch	6	2%	3	0	0%	11	3%	17
Strombidae	Conch	13	5%	3	3	1%	4	1%	20
<i>Brachyura</i>	Crab	0	0%	0	0	0%	1	0%	10
<i>Gecarcinus lateralis</i>	Red Land Crab	0	0%	17	7	7%	12	3%	29
<i>Gecarcinus ruricola</i>	Black Land Crab	0	0%	2	2	1%	6	2%	8
<i>Gecarcinus spp</i>	Terrestrial Crab	0	0%	11	11	4%	24	7%	35
<i>Uca sp.</i>	Fiddler Crab	0	0%	0	0	0%	1	0%	1
<i>Cardisoma guanhumi</i>	Blue Land Crab	0	0%	1	1	0%	1	0%	2
<i>Cardisoma sp.</i>	Terrestrial Crab	0	0%	0	0	0%	1	0%	1
<i>Carpilius coralinus</i>	Coral Crab	0	0%	1	1	0%	1	0%	2
Total		247		225	225	91%	363		835

Table 15.1. Identified taxa from Trents Plantation.

	Enslaved Occupations	Pre-Sugar Estate	Sugar Period Estate
<i>Bos taurus</i>			
Head	2	2	3
Axial	1	5	18
Upper Limb	1	4	16
Lower Limb			2
<i>Ovis/Aries</i>			
Head	7	3	4
Axial	3	2	3
Upper Limb	1	2	7
Lower Limb	2		3
<i>Sus scrofa</i>			
Head	29	11	22
Axial		1	2
Upper Limb			1
Lower Limb	1		7
MNE	47	30	88

Table 15.2. Skeletal part representation of large domestic mammals from Trents Plantation.

pigs, sheep/goats, dogs and other non-native fauna is reflected in the results of zooarchaeological analysis. The enslaved community relied more heavily on pig and sheep/goat, while beef consumption increased at the great house during the sugar period. This pattern of the production and consumption of Old World livestock is a strategy that continues today in Barbados, as demonstrated by the preponderance of modern day husbandry on Barbados, and specifically the production and consumption of sheep on Barbados (Singh *et al.* 2006). In particular, the Barbados Blackbelly sheep is a unique breed that remains a national symbol for the island. Imported European woolly sheep did not fare well on the island, but West African breeds were more successful, as described by Ligon (1657:92):

*'other sheep we have there, which are brought from Guinny and Binny, and those have haire growing on them, instead of wool; and liker Goates then sheep, yet their flesh is tasted more like mutton then the other.'*

The breed's desirable traits include its adaptability, prolificacy, year-round breeding and tolerance to internal parasites (Hosein *et al.* 2013:4). The annual consumption of sheep in Barbados is much higher than that of other Caribbean islands, and Barbados is a major exporter of this breed (Singh *et al.* 2006).

The decrease in the relative importance of chicken from the pre-sugar period to the sugar period is a surprising pattern. While preservation is always a potential biasing factor, few bird remains at all were identified in the sugar period occupations, despite excellent preservation in the estate house middens. Eggshell was recovered in both the slave village and estate middens. These results may reflect a developing internal market on the island, where poultry was a lucrative commodity, with eggs

providing consistent protein, but also valuable market goods (see Handler and Wallman 2014 for further discussion).

Surprisingly, few fish remains were identified in the plantation deposits, despite the location of the plantation under 1km from the coast. While this pattern might be influenced to some extent by preservation issues or recovery methods (especially for small species, such as the flying fish, which are often cooked and consumed whole), the lack of fish remains is conspicuous. Shellfish are recovered in all enslaved laborer household contexts, with no fish or other wild fauna. Mollusks are ubiquitous in the enslaved laborer quarters, and increase in relative abundance over time in the locus associated with the estate house. Crabs (mostly terrestrial) are consistent throughout the estate midden deposits, but absent in the slave quarter samples. While preservation bias might influence this pattern, the data suggest differences in the procurement of local fauna, and offer some insight into dietary preference between the planters and enslaved. These results also support the contention that the intensive focus on sugar production in Barbados required much of the food to be imported, and that enslaved diets were largely plant-based with supplemental protein, such as local shellfish, potentially imported salted fish, and domestic fauna. Fishing is a lot more time consuming than harvesting shellfish or crabs, or raising livestock, and thus we don't see much evidence of this activity in the archaeological record.

This research offers insight into the colonial origins of foodways on Barbados, examining the acquisition, preparation and consumption of food by the various residents of Trent's Plantation. Subsistence was an important aspect of daily life in the colonial Caribbean, and can speak to cultural transformation, resiliency, economic systems and power differentials in the past. Zooarchaeological data elucidates localized histories on plantations to help explain how the colonial past continues to impact modern foodways and practices. In Barbados, many of the traditions we see today began during the colonial period, and we see the traces of this past in everyday cuisine.

## Acknowledgements

Thank you to Doug Armstrong for bringing me on to the project and his comments on the manuscript. A thanks to the editors of this volume, Maaike S. de Waal; Kevin Farmer; Niall Finneran; Matthew C. Reilly.

## References

- Armstrong, D.  
1990 *The Old Village and the Great House*. University of Illinois Press, Urbana.  
2003 *Creole transformation from slavery to freedom: historical archaeology of the East End community, St. John, Virgin Islands*. University Press of Florida, Gainesville.
- Armstrong, D. and M. Reilly.  
2014 Recovering evidence of initial settler farms and early plantation life in Barbados. *Slavery and Abolition* 35:399-417.

Beckles, H.

- 1991 An economic life of their own: slaves as commodity producers and distributors in Barbados. *Slavery and Abolition* 12 (special issue):31-47.
- 2004 *Great House Rules: Landless Emancipation and Workers' Protest in Barbados, 1838-1938*. Ian Randle Publishers, Kingston, Jamaica.
- 2013 Servants and slaves during the seventeenth-century sugar revolution. In *Caribbean: A History of the Region and its Peoples*, edited by S. Palmié and F. Scarano, pp. 205-216. The University of Chicago Press, Chicago.

Benoit, C.

- 2007 Gardens in the African Diaspora: forging a creole identity in the Caribbean and the U.S. In *Gardens and Cultural Change: a Pan-American Perspective*, edited by M. Conan and J. Quilter, pp. 29-46. *Dumbarton Oaks*, Washington D.C.

Bergman, S.

- 2013 All my goods and chattels: archaeological perspectives on slaves' property ownership at St. Nicholas Abbey sugar plantation, Barbados, 1650-1838. Paper given at the conference Africans in the Americas: Making Lives in a New World, 1675-1825, sponsored by the Omohundro Institute of Early American History and Culture, University of the West Indies, Cave Hill.

Berlin, I. and P. Morgan (editors).

- 1993 *Cultivation and Culture: Labor and the Shaping of Slave Life in the Americas*. University Press of Virginia, Charlottesville.

Farmer, K.

- 2011 Women potters? A preliminary examination of documentary and material culture evidence from Barbados. *History in Action* 2:1-8.

Finch, J.

- 2013 Inside the pot house: diaspora, identity, and locale in Barbadian ceramics. *Journal of African Diaspora Archaeology and Heritage* 2:115-130.

Finch, J., D. Armstrong, E. Blinkhorn, and D. Barker.

- 2013 Surveying Caribbean cultural landscapes: Mount Plantation, Barbados, and its global connections. *Internet Archaeology* 35, *Council for British Archaeology*. [http://intarch.ac.uk/journal/issue35/finch\\_index.html](http://intarch.ac.uk/journal/issue35/finch_index.html) (accessed 1st March 2019).

Handler, J.

- 1970 Aspects of Amerindian ethnography in seventeenth century Barbados. *Caribbean Studies* 9:50-72.

Handler, J., M. Conner and K. Jacobi.

- 1989 *Searching for a Slave Cemetery in Barbados, West Indies. A Bioarchaeological and Ethnohistorical Investigation*. Southern Illinois University, Center for Archaeological Investigations, Carbondale.

Handler, J. and F. Lange.

- 1978 *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. Harvard University Press, Cambridge.

- Handler, J. and D. Wallman.  
2014 Production activities in the household economies of plantation slaves: Barbados and Martinique, mid-1600s to mid-1800s. *International Journal of Historical Archaeology* 18/3:441-466.
- Hosein, A., C. Paul, C. Roach-Benn, J. Borely, M. Thomas, and A. Fearon.  
2013 *The Small Ruminant Industry in CARICOM countries with particular reference to Jamaica and Trinidad & Tobago*. Trinidad. Caribbean Agricultural Research & Development Institute.
- Kelly, K. and D. Wallman.  
2014 Enslaved laborer plantation foodways in the French West Indies, eighteenth through nineteenth century. *Afriques* 05:1-19.
- Klippel, W.  
2001 Sugar monoculture, bovid skeletal part frequencies and stable carbon isotopes: interpreting enslaved African diet at Brimstone Hill, St. Kitts, West Indies. *Journal of Archaeological Science* 28:1191-1198.
- Ligon, R.  
1657 *A New and Exact History of the Land of Barbados*. London.
- Lofffield, T.  
1996/97 Archaeological evidence of Afro-Barbadian life at Springhead Plantation, St. James Parish, Barbados. *Journal of the Barbados Museum and Historical Society* 43:32-49.  
2001 Creolization in seventeenth-century Barbados. In *Archaeology of Atlantic Africa and the African Diaspora*, edited by A. Ogundiran, and T. Falola, pp. 207-233. Indiana University Press, Bloomington.
- Marshall, W.  
1991 Provision ground and plantation labour in four Windward Islands: competition for resources during Slavery. *Slavery and Abolition* 12 (special issue) : 48-67.
- McGregor, D.  
2013 Contemporary Caribbean ecologies: the weight of history. In *The Caribbean: A History of the Region and its Peoples*, edited by S. Palmié and F. Scarano, pp. 39-51. The University of Chicago Press, Chicago.
- Mintz, S. and R. Price.  
1976 *An Anthropological Approach to the Afro-American Past: A Caribbean Perspective*. Institute for the Study of Human Issues, Philadelphia.
- Palmié, S.  
2013 Toward Sugar and Slavery. In *The Caribbean: A History of the Region and its Peoples*, edited by S. Palmié and F. Scarano, pp. 131-148. The University of Chicago Press, Chicago.
- Pinckard, G.  
1806 *Notes on the West Indies*, 3 vols. Longman, Hurst, London.
- Pulsipher, L.  
1990 They have Saturdays and Sundays to feed themselves. *Expedition* 32/2:24-33.

- Reitz, E. and E. Wing.  
2008 *Zooarchaeology*. Cambridge University Press, Cambridge.
- Richardson, B.  
1997 *Economy and Environment in the Caribbean: Barbados and the Windwards in the Late 1800s*. University Press of Florida, Gainesville.
- Shuler, K.  
2011 Life and death on a Barbadian sugar plantation: historic and bioarchaeological views of infection and mortality at Newton Plantation. *International journal of Osteoarchaeology* 21/1:66-81.
- Singh, R., G. Seepersad, and L. Rankine.  
2006 *The Small Ruminant Meat Industry in CARICOM Competitiveness & Industry Development Strategies. The CARICOM Regional Transformation Programme for Agriculture*. Department of Agricultural Economics and Extension University of the West Indies, St. Augustine.
- Stephen, J.  
1824-30 *The Slavery of the British West India Colonies*, 2 vols. J. Butterworth, London.
- Tomadini, N., S. Grouard, and Y. Henry.  
2014 L'alimentation dans une plantation Guadeloupéenne du XVIIIe siècle. Le cas de l'habitation Macaille (Anse Bertrand), In *Bitasion: Archéologie des habitations-plantations des Petites Antilles-Lesser Antilles Plantation Archaeology*, edited by K. Kelly, and B. Bérard, pp. 69-86. Sidestone Press, Leiden.
- Tomich, D.  
2004 *Through the Prism of Slavery: labor, capital, and world economy*. Bowman and Littlefield Publishers, Lanham.
- Waller, J.  
1820 *A Voyage to the West Indies*. Printer for Sir R Phillips, London.
- Wallman, D., D. Armstrong, and H. Miller.  
2017 Stable Isotope Analysis of Human and Animal Remains from Trent's Plantation, Barbados, seventeenth through nineteenth centuries. Paper presented at the 2017 International Association for Caribbean Archaeology, St Croix, West Indies.
- Wallman, D. and S. Grouard.  
2017 Enslaved laborer and sharecropper fishing practices in eighteenth-nineteenth century Martinique: a zooarchaeological and ethnozoohistorical study. *Journal of Ethnobiology* 37/3:398-420.
- Wilk, R.  
1999 'Real Belizean food': building local identity in the transnational Caribbean. *American Anthropologist* 101/2:244-255.
- Wilkie, L. and P. Farnsworth.  
2005 *Sampling Many Pots: An Archaeology of Memory and Tradition at a Bahamian Plantation*. University Press of Florida, Gainesville.



Section Four

**Issues in Cultural  
Heritage Management in  
Barbados in the twenty-  
first century**

*Under the editorial supervision of Niall Finneran*



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## Collaborative Archaeology in a 'Redleg' Tenantry

*Matthew C. Reilly & Ainsley Norris*

### **Abstract**

This chapter represents a collaborative study of a small 'poor white' community on the margins of a sugar plantation. The authors represent an archaeologist and a member of the now-abandoned community under study. While the overwhelming majority of archaeological work on the island of Barbados is undertaken by trained professionals from overseas, this chapter highlights that community engagement is a critical part of the research process that exposes alternative notions of heritage and archaeological significance not always prioritized by non-local researchers. Our collaborative research on a tenantry community occupied by 'poor white' families until the 1960s demonstrates how memory plays a powerful role in how plantation landscapes are understood and experienced. Insights provided by community members, in this case concerning everyday life in a marginal plantation community, often offer perspectives irretrievable from historical documents or archaeological artifacts. We therefore emphasize the importance of collaborative research perspectives that encourage scholars and community members to work together to build more inclusive approaches to Barbadian history and heritage.

**Keywords:** *Collaborative archaeology, oral history, heritage, memory, community.*

### **Introduction**

As this book attests, Barbados is home to a rich assortment of pre-Columbian and colonial-period material heritage that speaks to the cultural diversity of the island's inhabitants over the last several thousand years. For over a century, archaeologists have looked to these material traces to provide clues about the lives of those who traversed the lush hills, sprawling shorelines, and manicured plantations that compose the island's natural and cultural landscape (for early examples see the Introduction to the volume). While these artifacts are invaluable in attempting to piece together the lives

and landscapes of a bygone Barbados, this chapter emphasizes that archaeology is not solely about old things, now-deceased Barbadians, or the specialists who interpret material culture. Rather, it is through collaborative efforts between archaeologists and community members that new insights into the past can be gleaned, critical questions about the past can be asked to address our present, and dialogues can emerge to suggest new directions for Barbadian heritage in the future.

Using a case-study of archaeological investigations of a 'poor white' Barbadian tenantry, this chapter will highlight how the unique skill and knowledge sets available to archaeologists and community members can provide alternative understandings of archaeological sites and materials. Extending beyond the realm of data collection, the authors suggest that this collaborative process can extend to all aspects of the archaeological endeavor, including publication, as demonstrated by the fact that this chapter is co-authored by an archaeologist and a community member. To be clear, by community member, we refer to an individual who resided in the specific community under archaeological investigation. Stakeholders and interest groups can be defined in broader terms, and this is certainly the case when considering pan-Caribbean heritage, but for our purposes, our notion of community member is very specific to the immediate area of study. As we attempt to argue below, the insights of community members are often necessary to answer crucial questions and provide perspectives not often considered by archaeologists. Beyond the scope of knowledge production, such collaborative efforts have the potential to bring community members together, forging or rekindling relationships through an interest in shared histories and collective memory. In highlighting the power and potential of collaborative archaeology, we close by imploring archaeologists to more actively pursue such methods in future archaeological work on the island.

Given that this chapter is co-authored by an archaeologist (Reilly) and a member of the community being archaeologically examined (Norris), we have decided to use the third person throughout the remainder of the chapter to avoid confusion. Much of the discussion concerning collaborative archaeology, while written with an archaeological audience in mind, was sparked by conversations between authors and largely compiled by Reilly. Materials related to the 'Redlegs' of Barbados and the site of Below Cliff, however, were written in collaboration, allowing both authors' words to be included as archaeological knowledge. Rather than being information that was relayed from source to researcher, these pages reflect the process of conducting research in this former tenantry community and the dialogue that it sparked. Other publications related to the site of Below Cliff are more conventional in terms of the methods outlined and interpretations generated (see for instance Reilly 2016a, 2016b, 2019). Recognizing, however, that archaeological interpretations do not necessarily represent the views of community members, this chapter is an opportunity to present alternatives to how archaeological sites and landscapes are approached and what qualifies as archaeology. Following Yannis Hamilakis (2008: 276), this chapter adheres to a more inclusive definition of archaeology as:

*'something that is practised not only by the official state and scholarly bodies, and by the educated and the professionally trained archaeologists, but also by other groups and individuals who have created and maintained discourses and interpretations about the material traces of the past, and/or engage with them through a series of meaningful practices.'*

Archaeological collaboration can be complicated, and caution should always be taken to avoid having archaeologists or material evidence speak *for* local community members. The collaborative process, however, can be a powerful mechanism through which the past can be meaningful for diverse interest groups in the present. One of the goals of this chapter, therefore, is to encourage more research in Barbados and beyond that deconstructs the schism between scientific researchers and community informants, thereby challenging traditional notions of who qualifies as source and scholar.

### **Collaborative Archaeology**

Historical archaeologists, those analyzing the period during and after European colonization in the Caribbean, have a number of datasets at their disposal; they utilize artifacts recovered from sites, the physical landscape, and written records (often left by those in positions of social, political, and economic power) to ask and address questions pertaining to the lives of island residents in the past who were often unable to leave their own written records. At the same time, given that it is a field of study grounded in specific locales, archaeology is uniquely situated to engage with local community members in ways not often afforded to other social scientists. In addition to these traditional sources of scholarly inquiry, archaeologists are often able to collaborate with community members to provide insights inaccessible through the written or material record. The collection of these oral sources, often referred to as oral traditions or oral histories, represents one of the most personal ways in which a researcher can engage with a source of information, so to speak. As will be outlined below, these sources can shed light on genealogies, kinship networks, artifact use and reuse, local interpretations of historical events, and general ways of life in years past.

This description showcases the methodological benefits that archaeologists receive from engaging with community members for the purposes of collecting data. While no doubt important, it should be stressed that community members should not be viewed *solely* as research subjects or sources of information. A rich and ever-growing body of literature has heralded the promise and productive results of what is now commonly referred to as community or collaborative archaeology. Often associated with North American Indigenous archaeology, community-oriented archaeology seeks to engage the public not just with the results of archaeology research but in the actual process of conducting research (Atalay 2012; Colwell-Chanthaphonh and Ferguson 2008; Silliman 2008a). Part of this approach also works to destabilize assumptions about who is considered an expert and who is considered a source of information.

This type of approach pushes archaeologists to think about what is acceptable as credible knowledge, suggesting that through the process of collaborative archaeology there is much to be learned by all parties involved that might fall outside the realm of objective truth about the past (Wylie 2014). What this suggests is that the *process* of ar-

archaeological research can and should be just as important as the *products*. Emphasizing that such an approach does not detract from the products of research, like books, articles, or museum exhibitions, Stephen Silliman (2008b: 9) highlights what can be gained by collaborators undertaking the practice of archaeology together:

*'Focusing on process underscores the journey, so to speak, of collaborative indigenous archaeology as an anthropological, cultural, and social undertaking.'*

While the implementation of this approach was only a small component of the larger archaeological project described below, it demonstrates that, even on a small scale, collaboration allows the past to resonate in the present for those most intimately familiar with local contexts.

Despite similarities in terms of histories of colonialism and the dehumanization of non-white people, the political and social complexities of the Caribbean differ from those of North America. Jay Havisser has articulated how a public-oriented archaeology can and should address pressing issues and interests unique to the Caribbean region, suggesting that:

*'[a]rchaeology should not represent a stagnant view back to a long-gone past, but rather serve as a current self-reflection of the Caribbean people'* (Havisser 2015: 244).

For Barbados, this means engaging with how local histories and circumstances affect how individuals and groups understand their place in island society and on the landscape. Given that:

*'[b]y 1800 at least 90 per cent of Whites and Blacks in Barbados were locally born'* (Beckles 2002: 184)

there are deep connections between Barbadians and the places and things around them. Collaborative archaeology in Barbados makes it possible for archaeologists and community members to work together to understand how and why places and things from the past are significant in the present.

A long history of published archaeological research concerning Barbados, including this volume, illustrates that the overwhelming majority of professional archaeology on the island is, and has been, conducted by North American and European visitors. This continuing trend deeply affects knowledge production. The increasing number of trained archaeologists from the Caribbean is certainly encouraging in terms of building sustainable archaeological practices in the region, but it may also be productive to challenge what qualifies as archaeological knowledge of the past. With a nod to the postcolonial shift in archaeology (see Liebmann and Rizvi 2008; Lydon and Rizvi 2010), this case-study shifts the frame of reference from what a more scientific, positivistic approach to archaeology can tell us about the past to instead allow human stories about the Barbadian landscape to be prioritized. Individual and community experiences therefore take the foreground, fostering a more inclusive dialogue about what constitutes Caribbean heritage (González-Tennant 2014) and demystifying how

archaeological research actually unfolds on and in the ground. Perhaps not taking a hardline stance in which:

*'post-colonial archaeology takes positions contrary to archaeology as science'*  
(Gosden 2012: 252)

this chapter nonetheless offers less in the way of explanations about the past than an example of an ongoing dialogue between an archaeologist and a community member about how the past is experienced and what counts as heritage.

Expanding on the social and political specifics of the Barbadian context, an added level of complexity stems from the fact that the island has been home to a substantial 'poor white' population since the seventeenth century. Collaborative archaeology must therefore be attuned to the racial and class tensions that developed with the onset of the sugar and slavery system and still affect all Barbadians in the present. The case-study presented here describes the collaborative archaeological process that was undertaken in the analysis of a 'poor white' tenantry, Below Cliff, located on the east coast of the island in the parish of St. John. In addition to posing more traditional archaeological research questions, like those related to the socio-economic status of past residents or the consumption patterns observable in the material record, the collaborative process reoriented the focus of archaeological work in the tenantry, placing an emphasis on what former residents and their descendants determined to be important about the space and its history. The connection and attachment between people, place, and things is deeply rooted in historical processes, making it essential to explicate how a 'poor white' population came to inhabit Barbados and what terms like 'poor white' mean to those imposed with that label.

### **The 'Poor Whites' or 'Redlegs' of Barbados: A Short History and Commentary on Labels**

As many of the chapters of this book demonstrate, sugar and slavery had an unparalleled effect on the lives of all Barbadians, especially those Africans and Afro-Barbadians who suffered the brutalities and inhumanity of enslavement until full emancipation in 1838. While the dichotomy of white, plantocratic dominance and black enslavement aptly captures the racialized system of labor exploitation and social stratification throughout the island's history, there is another component to the Barbadian story that highlights the socioeconomic complexities in the sugar colony. Prior to and during the meteoric rise of sugar production and African chattel slavery in Barbados, much of the labor being conducted on the island in the mid-seventeenth century was being undertaken by European indentured servants.

Along with enslaved Amerindians and captives from Africa, European indentured servants cleared and worked the lands of the island's earliest towns and small farms. Servants from Ireland, England, Scotland, Wales, and elsewhere in Europe who arrived on Barbadian shores, coming willingly or unwillingly, found themselves in an exploitative system of bound labor in which their time of servitude was owned and controlled by predominantly English masters. The system of indentured servitude generally stipulated that the signer of the contract agreed to work for a master for periods of four to

seven years in exchange for passage across the Atlantic, food, shelter, and clothing during their period of servitude, and a small parcel of land or an allotment of goods upon the completion of their contract (if their master was honest enough to pay it). Others, however, were forcibly sent across the Atlantic. These individuals, many coming from Ireland, were the victims of kidnapping, prisoners of war, or so-called criminals found guilty under vagrancy laws (Handler and Reilly 2017).

Life for any laborer in seventeenth-century Barbados, regardless of origin or race, was difficult, demanding, and often short. Evidence suggests that the Irish were singled out for particularly harsh treatment and violence at the hands of English masters (Beckles 1990; Handler and Reilly 2015; Shaw 2013). As Richard Ligon notes in his account of the time he spent on the island from 1647 to 1650, the experience of servants often depended on the demeanor of the master, noting that treatment could be *'mercifull or cruell [sic.]'* (2013[1657]: 72). As the seventeenth century progressed, legal statutes were put in place to regulate the treatment of servants, marking clear distinctions between servitude and African chattel slavery (Handler and Reilly 2017). These social and legal distinctions ensured that Barbadian 'poor whites' and Afro-Barbadians would have markedly different historical trajectories throughout the period of slavery and beyond. The seventeenth century was a formative period, which affects the way in which Barbadians recognize their own place in island society in the past and present. The system of sugar and slavery that was crystallized in this era was the catalyst for the emergence of a 'poor white' population.

The term 'poor white' begins to enter the historical record in the closing years of the seventeenth century. By this time planters and officials no longer placed as much emphasis on the national origins of their European populations, instead favoring the racial catchall of 'white' (see Shaw 2013), emphasizing just one of the many impacts that slavery was having on colonial society. As planters began to favor the use of enslaved African labor, the island began to witness a decline in its white population, principally its non-elites. In a letter to the Agents of Barbados, anonymously penned in 1697, an observer noted the 'languishing' condition of Barbados, attributing this situation to the 'maladministration' of justice and the 'diminution of white men.' Seeking to bolster the white population, he suggests limiting the role the enslaved could play in local trades, anticipating that employment would be thrown open to the poor white servants (cf. Fortescue 1905: 29). Such an account demonstrates that Barbadian authorities were struggling to find solutions to a growing 'poor white problem', a consequence of the sugar and slavery system that gave birth to what Hilary Beckles referred to as a white wage proletariat (1980). As Barbados cemented its status as a full-fledged sugar and slavery society in the closing decades of the seventeenth century, 'poor whites' or 'Redlegs' faded to the outskirts of the plantation landscape and the historical record.

While the etymology of the term 'Redleg' and its exact meanings are ambiguous (Lambert 2005: 100; Sheppard 1977: 2-3), the earliest known written appearance of the term is found in Dr. John Williamson's account of his time on the island in 1798:

*'A ridge of hills, in the adjacent country, about the middle of the island, is called Scotland, where a few of the descendants of a race of people transported in the time of Cromwell still live, called Redlegs' (1817: 27).*



Williamson's passing remarks about the 'Redlegs' provides a useful shorthand for describing the historical processes that led to their precarious place in Barbadian society. No longer valuable in terms agricultural production from the perspective of planters, many 'poor whites' moved to the peripheries of larger sugar plantations where they rented small plots of land not in use for cane production (Sheppard 1977). Seen as being of little economic worth, the 'Redlegs' inconsistently appear in the historical record throughout much of the eighteenth century, when the plantation system was at its zenith.

The lack of substantive accounts of the 'poor whites' or 'Redlegs' has meant that much of our understanding of the history of this population has been determined by select, derogatory accounts that cast the group as idle, dirty, racially arrogant, drunken, licentious, inbred, and ignorant (Reilly 2013). These vicious stereotypes have secured the status of terms like 'poor white', 'Redleg', 'Ecky Beckies', and 'Buckra Johnnies' as pejoratives – they are derogatory labels that carry negative connotations. Despite their demeaning nature, these epithets, much like 'redneck' and 'white trash', have survived for centuries. The terms are regularly used by Barbadians in informal conversation, jokes, folk songs, and in explicitly degrading rhetoric. What is sorely lacking, however, is commentary from residents of 'poor white' communities in the past and present. The majority of residents of Below Cliff, the tenantry under archaeological excavation, were referred to as 'poor whites'. This label extends to many Barbadians who live in the immediate area today, including one of the authors of this chapter. This term, along with the others mentioned, carries negative stereotypes that are uncritically applied to families and communities.

One of the major challenges in thinking about the power of these terms is to develop strategies that avoid the perpetuation of the associated derogatory baggage while also giving credence to the rich heritage and resiliency of the 'poor white' population. There is recognition among those identified as 'poor white' that the term does carry some accuracy in reflecting economic hardship and the fact that theirs is a racial genealogy that is different from, but often entangled with, that of Afro-Barbadians. While racial intermixing can be found in most Barbadian family trees, those with pale skin are marked as distinct, and those who bear the visible signs of economic hardship find themselves identified as 'poor whites' or 'Redlegs'.

What is most upsetting to those identified with these labels is that only the negative implications come across in public sentiment. Conversely, there are points of pride associated with the 'Redleg' identity that often go unnoticed or become silenced. The complicated history of the 'poor whites' must therefore be carefully weighed to understand the intricacies and tensions between 'poor whites' and their Afro-Barbadian neighbors. For instance, on multiple occasions during the seventeenth century, 'poor white' indentured servants banded together with enslaved Africans in attempted rebellions (Handler 1982). At the same time, many 'Redlegs' would later serve in the island's militia, protecting the interests and lives of planters from the threat of slave insurrections (Sheppard 1977: 39-40, 57-61). Uncritical and derogatory portrayals of the 'poor whites' assert that the population is plagued by a perceived racial arrogance that precludes 'poor white' interaction with Afro-Barbadians (see for instance Browne 2012: 16; O'Callaghan 2000). On the other hand, the seemingly salient racial line dividing poor whites and Afro-Barbadians was regularly contested (see Reilly 2016a).

These ambiguities and contradictions indicate that the dramatic effects of colonial rule and slavery haunt Barbadian lives and landscapes in the present. Despite these lingering and palpable tensions, 'poor white' Barbadians are an intricate part of the island's social fabric. Their heritage is proclaimed through their persistence and durability in otherwise inhospitable regions of the island, those, like Below Cliff, often deemed by planters as unacceptable for agricultural production. With rich family genealogies and centuries-old connections to place, the 'poor whites', like most Barbadians, celebrate a vibrant heritage. The means through which Barbadians engage with this heritage can often be quite different from approaches traditionally taken by archaeologists. Collaboration can mediate these differences, highlighting the collective potential of memory, place-making, and heritage in the archaeological research process.

### **Archaeology and Memory in Below Cliff**

Excavations of an abandoned 'poor white' tenantry in the eastern parish of St. John began in the fall of 2012. The project was the first archaeological investigation of Barbadian 'poor whites' or 'Redlegs'. Excavations sought to address complex questions about race and class on the plantation landscape, investigating how the 'Redlegs' made lives for themselves in an inhospitable environment in a highly-racialized plantation society. Building on a dynamic tradition of plantation archaeology in the Caribbean, excavations were undertaken at the household level. Unlike previous plantation studies, however, there was no explicit focus on the village for the enslaved or an extensive consideration of the plantation great house. By focusing on the households of 'poor white' plantation residents in the community of Below Cliff, new insights could be gleaned related to how non-elites navigated a dynamic landscape that has so often been understood only through the master-slave relationship.

The artifact assemblage from excavations of individual households in Below Cliff reflects the daily activities of family members who lived and labored in the coastal tenantry. Locally-produced and imported ceramics reflect consumption choices made by community members. As Reilly (2016b) has argued elsewhere, the presence of locally-produced coarse earthenwares demonstrates that community members were active participants in local markets that facilitated interracial interaction across the plantation landscape. Other items, such as buttons, clay tobacco smoking pipes, and slate pencils speak to the intimacies of everyday life in the close-knit community. The banal things that comprise this assemblage can be qualitatively and quantitatively assessed in order to generate interpretations about the lives of those who called Below Cliff home, providing insights not often available through archival sources that privilege the lives of elites. Items like slate pencils and boards can even assist in dispelling vicious stereotypes of illiteracy that are often used to denigrate the 'Redleg' population (see O'Callaghan 2000: 207).

Archaeology, however, can be more than an interpretive exercise undertaken by specialists analyzing material culture and the archival record. Many of the things that compose the archaeological record were produced, used, reused, and discarded by Barbadians who are dead and gone, but the communities in which excavations take place are active spaces inhabited by residents who have a vested interest in the questions being asked, the materials being uncovered, and the interpretations being made.

Through the collaboration with community members, seemingly mundane items and physical elements of the landscape take on new meaning, revealing how memory plays a crucial role in how people engage with things and things act on people. This is of course not a novel revelation in the Caribbean, where oral histories and traditions have long been gathered as archaeological data. For the purposes of this chapter, however, the process itself will be emphasized, rather than data and research conclusions, to showcase the multiple ways in which landscapes and artifacts can hold significance.

Group trips through the former Below Cliff tenantry, or the forested region that is now locally referred to as ‘the woods’, indicated that the space and the vestiges of the community could be read and experienced in a number of ways. Walking surveys through the woods were undertaken by the authors in an attempt to compare how an archaeologist (Reilly), a former resident (Norris), and other community members who prefer to remain anonymous experience and understand the landscape. This approach is similar to a research methodology known as ‘bimbling’, where interviews are:

*‘conducted in and through a place, to generate a collage of collaborative knowledge and give people the opportunity to re-experience their connections with landscape and to reminisce’* (Harrison and Schofield 2010: 76; see also Anderson 2004).

Together, the group set out to survey the region that Ainsley Norris called home as a child but had not returned to in several decades.

After driving up a narrow dirt road toward the former tenantry now located behind a small banana farm, the car pulled to a stop on a small, flat clearing. The spot, with no visible signs of past inhabitation, was quickly identified by Norris as Croney Bottom, the location where the Croney family had once resided, thus giving a local place-name and identity to an otherwise nondescript locale. The proclamation that ‘this *is* Croney Bottom’ marked the now-forested environment an active place, indicated by his use of the present tense. In discussing autobiographical memory and recollection, anthropologist Maurice Bloch makes a similar observation, noting that:

*‘topography infused with history is particularly significant in that it facilitates this re-experiencing as though one was there’* (Bloch 1998: 120).

The process of re-experiencing, however, confronts substantial obstacles due to the passage of time and changing landscapes. The thick vegetation that began growing after the tenantry’s formal abandonment in the early 1960s made it challenging to envision what the space had once looked like when cleared. A landscape that had been so familiar to those who had experienced in decades prior and vividly imagined in one’s memory soon presented itself as strange and unfamiliar territory.

Scanning the dense vegetation, Norris was astounded by the size of the breadfruit trees that were still producing fruit. The individual trees, however, signaled more than the vitality of the forest. After being a bit disoriented by the thick foliage and high canopy, Norris pointed to a single breadfruit tree in the distance, exclaiming that we would find a house next to or near the trunk. True to his word, the ruins of a limestone foundation were found just a few meters away. Prior surveys by Reilly had identified the site, but through more systematic archaeological methods. The breadfruit tree sparked

a flood of memories, almost immediately allowing Norris to be attuned to the nuances of the landscape, despite its radical change in appearance. In searching the horizon for more breadfruit trees and the narrow delineations of pathways, the community of his childhood began to take shape.

Memories centered on childhood activities and daily routines. For instance, a dirt path, now barely visible through the brush, was used by local children to walk to and from school each day. Flat rocks in clearings served as gathering place where the men of the community would convene, play cards or dominos, drink, and socialize in the late afternoons and evenings. The physical layout of the community and organization of households reflected kinship networks, and household sites were therefore named according to the surname of the family that had last resided on site. One local community member, despite having not grown up in this tenantry, mentioned the locations where family members or descendants of former residents now resided in neighboring communities. Geographic coordinates of individual households were carefully plotted throughout the region, and genealogies and kinship details were carefully noted.

At sites of household excavation, discussions surrounded the archaeological process and how excavated material culture could be identified and interpreted. As noted elsewhere (Reilly 2016c), community members often had different interpretations of artifacts than the archaeologist. Tin cans, buttons, and glass bottles that Reilly had initially associated with consumption patterns, gendered household activities, and drinking habits were reassessed by former residents who quickly noted the reuse of such goods for alternative functions.

One of the most telling examples of these conversations can drastically shift interpretations of seemingly mundane material culture came from the analysis of a cylindrical, rusted metal pipe (Figure 16.1). Recovered during excavations of a well that had been repurposed as a trash pit, the clunky iron was initially given very little thought by Reilly. With knowledge that water pipes had once run throughout the tenantry to provide water from a nearby spring to Bridgetown, the assumption was that the fragment of this utilitarian pipe had simply been cast aside as new pipes were being installed. Norris spotted the artifact-tagged pipe next to excavation units, eagerly pointing out that our excavations had uncovered an exciting, recognizable artifact from his childhood (though not that exact pipe; Figure 16.1). As a child, when coming across a piece of large pipe, Norris and other children from the community would bring it home for a very specific, seasonal use. In close proximity to many households, a hole would be dug directly into the limestone bedrock to produce marl, a white chalky substance made from ground limestone. Marl was then filled into buckets and spread across the household yard. It was then flattened out by rolling the pipe back and forth across the surface, allowing the marl to coat and become imbedded within the short grass and dirt. This was done in the weeks leading up to Christmas to give the appearance of snow.

These intimate details of daily life in this 'poor white' tenantry were even more vivid while surveying the area of Norris' childhood home. While most of the foundation stones had been removed or covered by vegetation, memory allowed for a precise description of the orientation of the home in addition to the surrounding features, such as a small garden, animal pens, detached kitchen, and ridge where children would take in the picturesque view of the Atlantic. Through an explicit demonstration of em-



Figure 16.1. Ferrous metal pipe recovered from household trash pit. The alternative, non-utilitarian usage of this artifact was only accessible through collaborative archaeology. The artifact was also evocative for Ainsley Norris, demonstrating the power of materials to trigger memories (Matthew Reilly).

bodied memory, Norris then slowly walked toward what was the rear entrance of the house. He sat down on a large, cut stone and explained that he used to sit on that very step and wait for his mother to finish cooking supper in the detached kitchen. From this spot he described the smell of the one-pot stews, fried fish, and roasted breadfruit that his mother used to make. He also explained that when the tenantry had been clear of the dense vegetation, he could sit in that very spot and watch the plantation workers descend to Below Cliff following their shifts at Clifton Hall Plantation, the estate that owned much of the land below the cliff.

As contemporary archaeology has demonstrated, the type of memory work exemplified by Norris' story about the metal pipe is a way in which to:

*'make the familiar unfamiliar'* (Graves-Brown 2000: 1)

to challenge our assumptions about seemingly quotidian items and landscapes. This collaborative process bridges past and present, drawing archaeologists and community members into conversation about the things and places that hold significance for Barbadians. The surveys undertaken proved invaluable for mapping the social and familial networks that once existed in the tenantry and in reimagining what the tenantry had been like when it was teeming with life. At the same time, it also allowed a former resident to reconnect with a deeply personal space, making it possible to transmit the space's significance to younger generations. During and after the trip, a member of the

community of a younger generation felt a new appreciation for his family's history. The historical processes that led to the establishment of a 'poor white' tenantry in Below Cliff are related to colonialism, capitalism, slavery, etc. As this collaborative archaeological approach highlights, however, it was the inhabitants of this space that made it home and make it a site of Barbadian heritage.

## Discussion

Toward the back of the Norris' property today, along the coastal region of St. John a few kilometers from Below Cliff, there is a pathway that leads down to the coast. Members of the family and community have used this pathway for generations to reach the waters of the Atlantic. It is here that locals fish, hunt for sea eggs (sea urchins), and set traps for a variety of shallow-water fish and crustaceans. In the woods along the pathway, the ground is littered with material culture that indicates that residents of this island have been calling this place home for centuries. Countless sherds of coarse pottery and tools made from conch shells provide the evidence that Amerindians once resided in this area, subsisting on the same marine resources that are eaten locally today.

The discovery of this site and regular encounters with the associated material culture has generated a fascination with archaeological finds and artifacts for those in the area, including members of the extended Norris family. These objects are found in the same soils that are used to grow crops today, and they show how diverse the island's population has been through time. The archaeological project discussed in this chapter, however, represents a different way in which connections can be forged between people, things, and places. It was the personal element of this project that first attracted the Norris family to collaborate with Reilly in the first place. The bits and pieces of the material culture that comprise the archaeological record are multi-temporal in that they bring the past into contact and conversation with the present. If, as Laurent Olivier (2011) asserts, archaeology is about the present due to the fact that vestiges from the past impinge on our here-and-now, then a collaborative approach to archaeology must be inclined to probe the depths of island and material memory. Such an approach means that all Barbadians have a role to play in building a more inclusive sense of island heritage.

The affective dimensions of the collaborative process were evident in Ainsley Norris' emotive response to reconnecting with the space, a response that challenged Reilly to view the site in new ways. The story of the 'Redlegs' is unique within the annals of modern Caribbean history, and proper socioeconomic context needs to be carefully considered to properly understand the significance of tenantry like Below Cliff, but certain experiential elements of island life transcend racial lines. For archaeology, this means that structural and historical considerations must be placed in dialogue with phenomenological approaches that privilege the individual and experiential dimensions of place (for such an approach see Hall 2000). The race-based system of slavery and its aftermaths cannot be disentangled from the realities of daily life in the present. There are, however, ways in which archaeology can shed light on how the past can have meaning in the present for all Barbadians.

There is unlimited potential for collaborative archaeology in Barbados. This chapter has highlighted to just one small instance in which an outsider archaeologist and for-

mer tenantry resident engaged in substantive dialogue throughout the research process. The research journey itself, only a small component of which is discussed here, exposed how landscapes can illicit vivid memories, how innocuous objects can have intimate, familial meanings, and how collaboration can engender new research directions that are productive for all parties involved. Archaeologists working on the island should actively pursue collaboration with community members who can be involved on their own terms. Rather than serving as informants or sources of historical information, community members have much to contribute to the process of archaeological practice. Additionally, there are also inherent problems when community members are only the recipients of research products. The detrimental effects of this approach can be seen in the persistence of negative stereotypes associated with the 'poor whites'. Our collaboration has been fruitful in terms of the research undertaken, the information gathered, the relationships forged, and the perspectives generated. It is our hope that future work on the island will incorporate collaborative approaches so that exploring and promoting the island's heritage can be an inclusive process.

As the authors of this chapter were concluding a survey of Below Cliff, Ainsley Norris nostalgically commented that he would move back to this tenantry if he could. This affection, in part, stems from a desire for a more secluded, peaceful lifestyle, but time spent exploring Below Cliff revealed that memory and heritage engendered a deep sense of belonging for the former resident. For the archaeologist, the site became more of an active place than a space in which to study to the past. Cut pieces of limestone, corroded metal pipes, and lone breadfruit trees were all imbued with memory, acting back on those most familiar with their stories and biographies. The past came crashing into the present during collaborative surveys through the woods, but the future was also considered. Just before departing, Ainsley Norris slowly bent down and, just meters away from his childhood home, he planted a few tamarind seeds.

## References

- Anderson, J.  
2004. Talking whilst walking: a geographical archaeology of knowledge. *Area* 36/3: 254-261.
- Atalay, S.  
2012. *Community-Based Archaeology: Research with, by, and for Indigenous and Local Communities*. University of California Press, Berkeley.
- Beckles, H.  
1980. Land distribution and class formation in Barbados 1630-1700: the rise of a wage proletariat. *Journal of the Barbados Museum and Historical Society* 36/2: 136-143.  
1990. A 'riotous and unruly lot': Irish indentured servants and freemen in the English West Indies, 1644-1713. *The William and Mary Quarterly* 47/4: 503-522.  
2002. Creolisation in action: the slave labour elite and anti-slavery in Barbados. In *Questioning Creole: Creolisation Discourses in Caribbean Culture*, edited by Verene A. Sheperd and Glen L. Richards, pp. 181-201. Ian Randle Publishers, Kingston.

- Bloch, M.  
1998. *How We Think They Think: Anthropological Approaches to Cognition, Memory, and Literacy*. Westview Press, Boulder.
- Browne, D.  
2012. *Race, Class, Politics and the Struggle for Empowerment in Barbados, 1914-1937*. Ian Randle Publishers, Kingston.
- Colwell-Chanthaphonh, C. and T. Ferguson (editors).  
2008. *Collaboration in Archaeological Practice: Engaging Descendant Communities*. AltaMira Press, Lanham.
- Fortescue, J. (editor).  
1905. *Calendar of State Papers, Colonial Series, America and West Indies, 27 October, 1697-31 December, 1698*. Mackie and Co., London.
- González-Tennant, E.  
2014. The 'color' of heritage: decolonizing collaborative archaeology in the Caribbean. *Journal of African Diaspora Archaeology and Heritage* 3/1: 26-50.
- Gosden, C.  
2012. Post-colonial archaeology. In *Archaeological Theory Today*, Second Edition, edited by Ian Hodder, pp. 251-266. Polity Press, Malden.
- Graves-Brown, P.  
2000. Introduction. In *Matter, Materiality and Modern Culture*, edited by Paul Graves-Brown, pp. 1-9. Routledge, Abingdon.
- Hall, M.  
2000. *Archaeology and the Modern World: Colonial Transcripts in South Africa and the Chesapeake*. Routledge Press, Abingdon.
- Hamilakis, Y.  
2008. Decolonizing Greek archaeology: indigenous archaeologies, modernist archaeology and the post-colonial critique. In *A Singular Antiquity: Archaeology and Hellenic Identity in Twentieth-Century Greece*, edited by D. Damaskos and D. Plantzos, pp. 273-284. Benaki Museum Press, Athens.
- Handler, J.  
1982. Slave revolts and conspiracies in seventeenth-Century Barbados. *New West India Guide* 56 1/2: 5-42.
- Handler, J. and M. Reilly.  
2015. Father Antoine Biet's account revisited: perspectives on Irish Catholics in mid-Seventeenth Century Barbados. In *Caribbean Irish Connections*, edited by A. Donnell, M. McGarrity, and E. O'Callaghan, pp. 33-46. University of the West Indies Press, Mona, Jamaica.  
2017. Contesting 'white slavery' in the Caribbean: enslaved Africans and European indentured servants in seventeenth-Century Barbados. *New West Indian Guide* 91: 30-55.



- Harrison, R. and J. Schofield.  
2010. *After Modernity: Archaeological Approaches to the Contemporary Past*. Oxford University Press, New York.
- Haviser, J.  
2015. Truth and reconciliation: transforming public archaeology with African descendant voices in the Dutch Caribbean. *Journal of African Diaspora Archaeology & Heritage* 4/3: 243-259.
- Lambert, D.  
2005. *White Creole Culture, Politics and Identity During the Age of Abolition*. Cambridge University Press, New York.
- Liebmann, M. and U. Rizvi (editors).  
2008. *Archaeology and the Postcolonial Critique*. Altamira Press, Lanham.
- Ligon, R.  
2013[1657]. *A True and Exact History of the Island of Barbados*, edited by D. Smith. E-text, 4<sup>th</sup> edition.
- Lydon, J. and U. Rizvi (editors).  
2010. *Handbook of Postcolonial Archaeology*. Left Coast Press, Walnut Creek.
- O'Callaghan, S.  
2000. *To Hell or Barbados: The Ethnic Cleansing of Ireland*. Brandon Books, Dublin.
- Olivier, L.  
2011. *The Dark Abyss of Time: Archaeology and Memory*. Rowman & Littlefield, Lanham.
- Reilly, M.  
2013. Archaeological approaches to the 'poor whites' of Barbados: tired stereotypes and new directions. *Journal of the Barbados Museum and Historical Society* 54: 1-27.  
2016a. Archaeologies of instability: order and disorder in colonial Barbados. *Journal of Social Archaeology* 16/2: 216-237.  
2016b. 'Poor Whites' on the peripheries: 'Poor White' and Afro-Barbadian interaction on the plantation. In *Archaeologies of Freedom and Slavery in the Caribbean: Exploring the Spaces In Between*, edited by L. Bates, J. Delle and J. Chenoweth, pp. 49-78. University Press of Florida, Gainesville.  
2016c. 'Poor White' recollections and artifact reuse in Barbados: considerations for archaeologies of poverty. *International Journal of Historical Archaeology* 20/1: 318-340.  
2019. *Archaeology below the Cliff: Race, Class, and Redlegs in Barbadians Sugar Society*. University of Alabama Press, Tuscaloosa.
- Shaw, J.  
2013. *Everyday Life in the Early English Caribbean: Irish, Africans, and the Construction of Difference*. University of Georgia Press, Athens.

Sheppard, J.

1977. *The 'Redlegs' of Barbados: Their Origins and History*. KTO Press, New York.

Silliman, S. (editor).

2008a. *Collaborating at the Trowel's Edge: Teaching and Learning in Indigenous Archaeology*. University of Arizona Press, Tucson.

2008b. Collaborative indigenous archaeology: troweling at the edges, eyeing the center. In *Collaborating at the Trowel's Edge: Teaching and Learning in Indigenous Archaeology*, edited by S. Silliman, pp. 1-21. University of Arizona Press, Tucson.

Williamson, J.

1817. *Medical and Miscellaneous Observations Relative to the West India Islands*. Alex Smellie, Edinburgh.

Wylie, A.

2014. Community-based collaborative archaeology. In *Philosophy of Social Science: A New Introduction*, edited by N. Cartwright and E. Montuschi, pp. 68-82. Oxford University Press, New York.

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# Young Children's Agency within Barbadian Community Heritage

A Children's Rights and Sustainable  
Development Model

*Lucy Willans & Liesje Cole-Pragnell*

## **Abstract**

Younger consumers of heritage and history, such as children in early years settings, are often ignored within wider frameworks of heritage discourse. This is problematic. We should be aiming to enfranchise stakeholders from a very early age, to develop and nurture an interest in heritage and the wider context of how heritage operates within society as a force for good. Using a perspective developed from early years learning, a UK-based and a Barbados-based practitioner offer their own perspectives and experiences on building a sustainable heritage capacity in a Caribbean setting.

**Keywords:** *early years learning; community heritage; sustainability; agency.*

## **Introduction**

As new processes of community participation have developed and become increasingly integrated into the work of heritage professionals (Smith and Waterton 2012), these activities have helped to underpin human rights issues and highlighted the diversity of beliefs, human endeavor and suffering that have shaped the past and now inform our choices for a fair and sustainable future. There is, however, a voice that is still rarely heard within this new dialogic space, that of the young child. A perception of young children as active and valued participants within cultural, political and educational innovation has slowly been gaining a foothold (Alderson 2008; Dalli and Te One 2012;

Mackey 2014) but within the heritage sector, including Barbadian heritage, children in pre-primary and early primary education remain largely the recipients of, and not participants in, what is for adults and older children becoming an increasingly democratically negotiated and well researched area.

Involving young children deeply within community heritage policy-making, planning and activities can be viewed as problematic, especially in the absence of clear guidance on this group's meaning-making processes and capabilities, particularly when dealing with a dark or contentious heritage (Kello 2016; Viz *et al.* 2015). Yet, by continuing to shy away from the incorporation of young children's agency within community heritage, a valuable natural ability and important critical voice within community engagement is lost. In Barbados, a catalytic meeting has prompted the development of an engagement model that sets aside a more traditional approach to control, instruction and protection of young children within heritage engagement and prioritizes, instead, children's intuitive abilities and agency. In exploring genuine, inter-generational collaboration with children aged two to six years, within an ethos of democratic, community-centered pedagogy, an opportunity has emerged for Barbados to take the lead in addressing this under-researched aspect of community heritage engagement. This case study forms the core of this chapter.

### **Changing concepts of childhood**

Intrinsic within the participation of young children's engagement with heritage is the influence of inter-generational power relations. Mayall (2008) identifies how children's lived experiences are frequently framed by adults' concepts of childhood, and not by children's own intuitive approaches and capabilities. The right of young children to express opinion and belief has been enshrined in UNCRC law since 1989 (United Nations General Assembly 1989) with the potential within children's agency clearly identified in a UNICEF publication of the period (Hart 1992). O'Kane (2008) tracks a methodological shift, from children being understood from a purely adult perspective, to being regarded as a distinct social group to be studied, and more recently to becoming co-researchers and change-agents in understanding childhood (Alderson 2008; Dalli and Te One 2012; Mackey 2014). Within this enlightened approach, Mayall (2008) invites us to consider what children bring to the table as being not merely perspective or opinion, but valuable, informed understanding. O'Kane's (2008: 142) research tells us that children prioritize being listened to, having their say and being supported in this engagement, more than they value getting what they want or needing adults to make good decisions.

Multi-faceted approaches to research with young children, as demonstrated in the mosaic method (Clark and Moss 2001) are increasingly supplying young children with the tools to get their message across, whilst new ethical guidelines on research with children (Powell *et al.* 2013) and children's rights (Davis 2014) are providing an important safety net. These tools are leading to an increased understanding of young children's thought processes, revealing incisive and flexible modes of meaning-making and multimodal communicative practices (Hackett 2014). Within this new insight has been the identification of the role of sustained shared thinking in meaning making (Siraj-Blatchford 2009), leading to a greater appreciation of the need for children's

sustained play and exploration, and the valuable scaffolding that is inherent in effective collaborative opportunities for children with both adults and peers. Dann (2013: 560) reminds us that at the heart of both learning and teaching is a sense of curiosity that needs to be nurtured in teacher and child, and explored through their interaction in complex learning environments. Also recognized is a physicality within meaning making, as Hackett (2014) observes in children redefining museum space by crossing and re-crossing between points of interest as understanding is developed. The way we approach heritage engagement therefore needs to reflect the natural aptitude young children have for flexible thinking and connectivity, and must also respect a child's right to have agency in shaping new ideas and approaches.

### **Changing concepts of heritage**

As children break free from the confines of restrictive, adult misconceptions of their capabilities, so are definitions of heritage breaking free from an authorized heritage discourse (Smith 2006: 29; Smith and Waterton 2012: 27) and being re-defined within connectivity ontologies (Harrison 2013: 210; 2015). Working with indigenous groups in Australia, Rodney Harrison (2015) identifies that the science/art, objects/people, nature/culture and mind/matter dualisms, embodied in westernized heritage charters and conventions, are too rigid to incorporate what is developing as a more nuanced understanding of heritage. Here he is suggesting an approach that goes far beyond attempts to simply reduce the nature/culture divide, as seen recently within the International Union for Conservation of Nature's collaborative work with the International Council on Monuments and Sites, on connecting practice in World Heritage projects (International Union for Conservation of Nature, 2017). Harrison suggests, instead, a model of deep connectivity, developed through considerations of indigenous cultural practice, which offers the opportunity to reorient and 'reconceptualize' heritage (Harrison 2015: 24). Within community heritage activities Laurajane Smith (2006: 97) similarly identifies that concepts of universal value and authorized heritage discourse, as defined by the World Heritage committee, are increasingly challenged by the dissenting voices of those 'othered' by national and global definitions, seeking, instead, new definitions that are locally relevant and democratic (Smith 2006: 30).

Writing in 2015, Harrison goes further in this exploration of how we might remove the boundaries between aspects of heritage, seeking:

*'...sustainable, detailed policies that recognize heritage places, objects and practices as relevant elements within an environment that 'we nurture and that in turn nurtures us' (Harrison 2015: 32).*

He poses the question where to begin in this new expanded field of heritage?' (Harrison 2015: 35). The answer to that question will be self-evident to many of those who have collaborated with young children in outdoor experiential learning. Harrison's concept, based around collaborative, dialogic and interactive processes and the connections between heritage, ecology, sustainability, health and resilience (Harrison 2015) is describing the ethos that defines high quality outdoor experiential learning and forest school

processes. Within these outdoor activities, young children are free to use instinctual processes of connectivity to explore their kinship to animate and inanimate objects, to their environment and to each other. Unfettered by adult-defined classifications and interpretations, children move seamlessly between nature/culture science/art, objects/people and mind/matter.

These are pedagogical processes that embrace a macro concept of sustainability, yet acknowledge that this is achieved by understanding and respecting inter-dependent median and micro systems of immense diversity, including representations of heritage. Engaging with local community is recognized as an important part of this outdoor experiential learning (Wickett and Huggins 2011), in a world where Sandell and Ohman (2010) suggest we can lose a sense of local place when connected through globalizing processes. This is about discovering the multiplicity of historical readings of a landscape (Kelly and Cutting 2011), and understanding its complex dynamics, empowering children to create new cultural processes and sustain development (Wickett and Huggins 2011).

### **The context of primary and pre-primary education**

The concept of heritage as an affecter within sustainable development is now clearly acknowledged:

*'Heritage has been absent from the mainstream sustainable development debate despite its crucial importance to societies and the wide acknowledgment of its great potential to contribute to social, economic and environmental goals.'* (UNESCO 2017a)

Yet the majority of initiatives in this area are aimed at older children (UNESCO 2017b; UNESCO 2017c). Consequently, early primary and pre-primary education, worldwide, is still searching for an effective model to engage younger children within these combined concepts; a task made more complex in societies dealing with post-colonial issues around indigenous schooling and identity retention (Guilherme and Huttner 2015) and contrasting views on citizenship formation within multi-cultural nations (Sharp 2012). Of concern to many is also the application of a results-driven approach to curricula within pre-primary and early primary education. This requires teachers to set aside a broad curriculum that reflects the connected and complex nature of both heritage and sustainability (Barghi *et al.* 2017; Laine 2016), to focus instead on academic success (Cooper 2015) through narrow subjects (Green, Reitano and Dixon 2010). A connected approach in the curriculum also depends on connectivity between teachers, administrators, curriculum producers and other experts (Barghi *et al.* 2017) and needs to be supported by appropriate resources, which are currently often found to be inappropriate or under-used (Bracey 2016; Walker and Haywood 2009).

The powerful message we can take from this selection of international research is that there is the need for an age appropriate, cohesive approach, and that the place to begin Harrison's (2015) reorientation and reconceptualization of heritage is within these formative, early years of childhood. It is a lost opportunity, and an abuse of children's rights, that current approaches are frequently counter-intuitive,

expert dissonance is unproductive, children's agency is minimal and rich, innate skills are often left un-tapped.

### **Overcoming the barriers**

Facilitating young children's agency, within a revised model of heritage, is not without its own problems. In highly risk-aware, modern societies (Denney 2005: 1; Gardner 2009: 13), Wickett and Huggins (2011) stress the concerns of finding a practical balance between risk and opportunity when taking children out of settings and into community, just one of the many barriers to outdoor experiential learning and agency that they and Edward-Jones, Waite and Passy (2016) identify, including parental opinion, leadership, resources, teacher confidence, educational policy and place. Some barriers are covert, as in the unequal power differential between child and adult (Phillips 2014). This can inhibit children having the opportunity to question given facts or voice opinion, resulting in situations that Hart (1992: 9) describes as decorative, tokenistic or manipulative participation opportunities. Mayall (2008) draws parallels between these generational power issues and women's gendered power inequality issues, suggesting that we must similarly unpack mis-assumptions, to facilitate children directly impacting on the development of new knowledge (Hendrick 2008).

Because it takes time for some institutional approaches to change, as seen locally within the UNCRC's response to the Barbados' 2014 report on progress made in implementing children's rights (UNCRC 2015: 34-52), genuine engagement opportunities are vitally important, to demonstrate the value of shifting these perceptions. When equality is acknowledged the benefits become clear, as seen in the Chicago History Museum's decision to work directly with primary school children to create an effective exhibition space, a process that revealed the children as highly creative and knowledgeable design partners, and transformed staff perceptions of the interactive possibilities with community (McRainey and Russick 2009).

### **Addressing a 'dark heritage' with young children**

If we invite children to have agency in society, and to engage with real issues, then we must also accept that they will come face to face with the darker side of today's societies, and darker elements within heritage; an issue that has specific relevance in Barbados, given its political, economic, psychological, social and cultural legacy of slavery (UNCRC 2015: 7). Kello (2016) identifies that teaching sensitive or controversial issues (SCIs) induces anxiety in many teachers. These concerns include the emotional reaction of pupils, a teacher's own socio-cultural identity and the expectations of school, community and state. These are issues similarly identified by Viz *et al.* (2015), within the context of Israel's recent inclusion of a mandatory nationwide holocaust curriculum for Jewish kindergarten children. Viz *et al.* offer a range of research indicating that young children possess the cognitive ability to engage with SCIs. Yet they also recognize the importance of the quality of the scaffolding offered by teaching staff, allowing young children to process progressive concepts within the topic without being initially overwhelmed by fear or distress.

The inevitable subjectivity of teacher and curriculum, identified by both Kello (2016) and Viz *et al.* (2015), highlights the importance of developing cultural literacy, to enable children to stand against this when seeking new insight (Polistina 2009). Young children's capabilities to comprehend SCIs has been successfully explored by Phillips (2014) in working with 5-8 year olds through interactive, social justice storytelling. Within a series of weekly sessions, details of an injustice are shared through storytelling and then explored through an iterative process of sustained shared thinking, allowing children to interrogate, at their own pace, many of the interconnected social, economic and environmental 'global realities' that UNESCO identifies need to be addressed to establish a sustainable future (UNESCO 2017d).

## **Fresh beginnings**

As research reveals both the scope of children's natural aptitudes and the need for insightful approaches to heritage engagement for young children, it becomes self-evident that young children should be acknowledged as active partners within community heritage engagement in Barbados. A clear opportunity for this engagement is evident in the Caribbean Action Plan for World Heritage 2015-2019 (UNESCO 2014) where emphasis is placed on the participation of local communities and individuals in processes of identification, conservation, protection and management of heritage sites and on promoting the value of knowledge sharing and training for heritage management skills in communities.

In Barbados in 2015 a small group of primary and nursery teachers from the St George district, together with a local artist and a representative of outdoor experiential learning and heritage engagement, met to discuss options for using Walkers Dairy, formerly a plantation, as a site for facilitating young children's involvement in a community archaeology project (University of Winchester 2017). This could have been, as is often the case in community archaeology, a simple discussion on the logistics of bringing groups of young children on to an archaeological site for a hands-on session, and maybe providing a sand box dig and artifacts handling session in the classroom prior to the site visit. Instead it developed into a deep discussion on the essence of engagement, from a young child's perspective. It was agreed that before engaging with the archaeological dig it would first be important to establish a strong connection between child, landscape, teacher, family, community and the archaeology and heritage professionals. This would develop through meaningful consultation with the children and in opportunities for experiential learning, on site and in community.

Parental participation, recognized as essential to reinforce a process of inter-generational knowledge exchange and the negotiation of new thinking (Hart 1992: 37), would also be an important aspect. What was sought was an approach that acknowledged the deep and connected way in which children engage with, and make sense of, the world through sustained shared thinking. With the practical understanding derived from working directly with young children, all participants in this meeting agreed that young children were certainly capable of making meaningful connections and building understanding, even within a landscape carrying a dark history, provided facilitators were willing to be guided by the children's own instinctual processes.



Another aspect of a new heritage engagement model for Barbados that was explored was placing an emphasis on using primarily freely available, natural and/or recycled resources to democratize learning opportunities. Activities should also tap into children's unique creativity in art and storytelling and be led by their developing interests and lines of enquiry, a process responsive to each individual's level of ability and each cultural context. Critical to this process would be offering children genuine opportunities for engagement within community, involving contact with a wide range of narratives of place and people and access to a wide range of experiences.

With an emphasis on the long-term sustainability of these activities, the group recognized the importance of establishing heritage champions within schools and community, drawn from all age groups. The role of these individuals would be to identify and facilitate heritage engagement experiences for young children, by thinking outside the box and finding innovative links to heritage, focusing on the opportunistic potential within a community-centered pedagogy. Training could be offered to these champions by local experts, and also through a reciprocal relationship with visiting experts, acknowledging the benefits to these visitors of access to heritage and ecological research opportunities on the island.

The final key to breaking down barriers to young children's agency would be to provide an information pack, containing guidelines on appropriate ethical and safeguarding protocols for working with young children, and detailing local sources of help and advice. The viability of this initiative has been indicated by the positive response of local teachers to the idea of removing the barriers to heritage engagement. This was clearly demonstrated during the initial meeting and in subsequent school visits, evident in the teachers' eagerness to share ideas and experiences, their astute awareness of the potential within children's agency, deep understanding of their pupils' capabilities and commitment to delivering the best possible experiential opportunities for the children.

The first steps are now being taken, building upon this initial, catalytic exchange and tapping into a now growing community of practice, comprising Barbadian, American and UK early years education, heritage, creative arts, museum practice, ecology, outdoor experiential learning and archaeology professionals. St Nicholas Nursery, one of the contributors to the initial discussion, is currently incorporating a child-led approach to early years heritage engagement within their curriculum for 2-3 year olds (University of Winchester 2017). The intention is to develop an enhanced understanding of how these youngest children intuitively approach complex concepts of heritage and sustainability, and to then, through a strongly reflective and reflexive process, develop appropriate activities and opportunities within the grounds of the nursery, in local community and on the site of the proposed archaeological dig.

St Nicholas Nursery's practice incorporates experiential learning, creativity, engagement with nature, children's agency and the scaffolding of learning through sensitive, responsive engagement. Elements of Montessori, Steiner and Froebel are evident. The nursery is located in the countryside, and there are therefore strong links to rural activities and to the sustainability issues of the St George district and the island as a whole, and outdoor activities are enhanced by one staff member's extensive knowledge of indigenous plants and their uses. Within this nursery setting, practitioners invite children to explore natural resources, recycle, cultivate plants, clean and collect items of interest found in the ground during gardening and to model, draw and share stories

about the island, its inhabitants and the planet as a whole. So, to understand in greater depth how the children perceive and process aspects of cultural and natural heritage it has been possible to simply enhance these activities.

In one of these observed sessions, discussion turned to what might become buried beneath the ground. Ideas from the children included cookies, bicycles, sand, trees, fish, water, red racing cars, cows, glass and people. The children made models of these objects and stuck them around a large drawing of planet Earth. They then called upon their existing knowledge of recycling and of the condition of past 'treasures' they had discovered in the ground, to discuss which of these things would still be found in the earth a very long time from now, and what the people who found them would say about these objects and their original owners.

In a later session, the starting point for an impromptu heritage-related discussion was a counting song: 'One man went to mow, went to mow a meadow'. A practitioner asked 'how would you feel after mowing a meadow?' The older children replied 'tired' and 'hot'. 'So, what would you do if you were tired and hot?' 'I'd go for a swim' replied one child. 'Oh yes a swim would be good, it would cool you down. What else could you do?' 'Have a drink' a child shouts. The group imagines that they cannot get water from a tap as they are living in a time before taps. They talk about local fresh water sources they know. One child suggests the sea, and the practitioner shows them a simple but very slow way to remove the salt from salt water. They decide that fresh water sources are good places to live near to. Nursery activities are used to illustrate uses for water, including washing dolls clothes, toy dishes and hands, drinking some water after going for a walk, planting the kitchen garden and watering it. The conversation continues: 'So imagine we have found a place to live near a spring. What do we need to do now?' The children form ideas together about building homes and what materials they may use to do this, and then move on to talking about cooking pots and household items, and materials such as shells, wood and clay.

Ideas formed around needing some form of bowl for meals flows into a third session, where the children talk about the calabash bowl that is used every lunchtime by one of the practitioners, which the children can link to the calabash tree that they have identified during nature walks around the area. Building on this interest in bowls the children are given the opportunity to handle pottery bowls and broken shards of early earthenware, and talk about their own previous finds during gardening. The group discusses how some of the sherds they hold were once part of a bowl, hand-made from clay dug from the ground locally. The children create imaginative stories about how the bowl may have become broken. Observing that the children are still maintaining an interest in this theme, the nursery then utilizes its local community of practice by inviting a potter to the nursery. The children are given a lump of local clay to work with, and are shown by the artist how to pinch the clay, to raise the edges into a bowl. They press shells, leaves, coral and other organic materials they have collected on their nature walks into the clay, to create interesting designs. The bowls are then fired and the children take them home to use.

There are a number of important elements illustrated within these sessions, clearly demonstrating the connected nature of a rich and varied heritage-focused experience. The children observed and discussed the regular use of a traditional calabash bowl, and made connections with their natural environment. They copied a traditional skill,

using clay, but were also given the opportunity to explore the human drive to express individual creativity, details of which they now look out for in hand-made objects. They utilized storytelling to explore the lives of others, and in doing so linked back to their previous discussions, observations, experiences and experiments concerning food, water, shelter, cooking and survival. In doing all this they explored concepts of ownership and value, survival, use of natural materials, skills sharing, cultural continuity and creativity. Taking their bowls home, they then linked the experience back into family, prompting further discussions.

Able to draw upon a diverse, local and international community of practice, the nursery invited a representative of Barbados Museum, and Dr. Matthew Reilly, an archaeologist from Brown University, USA who would be leading the community archaeological dig, to work collaboratively within this process, ensuring that the nursery staff had a basic knowledge of archaeological processes and the archaeological heritage of Barbados to scaffold children's investigations. A representative of the museum also visited the nursery with locally found artifacts. This type of visit is an important opportunity for the children, as acknowledged co-researchers and change agents, to meet their fellow researchers and be invited to critically compare and debate the adults' finds, experiences and ideas with their own. It is also a valuable opportunity for the nursery practitioners to observe the children's individual approaches to meaning-making in relation to artifacts, noting how the children hold, describe, discuss and analyze these objects. Practitioners' observations then shape future activities, to support the children's research interests.

These observations have already raised an awareness of the importance of taking the children onto site before the archaeological dig begins, to contribute to planning. It is an opportunity for children and experts to read the landscape together and explore the natural and culturally transformed elements. In doing so the archaeological team can also identify the ecological and cultural significance to children of this place and their views on a community dig. This feedback, together with similar consultations with the adult community, can guide the team on how, or even potentially whether, to progress to breaking ground. Critical to facilitating this influential level of engagement by children are those prior opportunities for sustained shared thinking, through experimentation, discussion, model-making, observation story-telling and investigation, and the creation of an environment that offers the children challenge, respect and genuine agency.

St Nicholas is one example of a developing model of engagement, but the key to embracing a rhizomatic approach to heritage engagement is to acknowledge the opportunistic and diverse nature of its manifestations. In contrast to St Nicholas, grounded as it is in a rural environment, a very different context for heritage engagement for young children is offered within community heritage in Speightstown, Barbados, once a thriving port for colonialist activities and now increasingly reliant on tourism. International and national heritage activities in the area have recently included buildings recording, small scale archaeological investigations, maritime archaeology and recording oral histories (University of Winchester 2017). Increasingly, community interest and need is uniquely shaping this local model of heritage engagement, and an important opportunity exists for young children to meaningfully contribute to its design, by sharing their ideas. Here the same core principles apply

for engagement as in the St George community, in facilitating an opportunity for young children in local nurseries and primary schools to build analytical and communicative skills through a range of activities involving sustained shared thinking. Reflecting the town setting, a natural progression might then be to introduce child-led walking tours, a well-tested participatory tool.

Phillips' (2014) utilization of the walking tour method applies principles of communitarian citizenship and public pedagogy in schemes where children of eight to eleven years old lead and narrate walking tours through their communities, a process that Raittila (2012) uses, with similar success, with children of four to six years old. Raittila analyses the tours using the theoretical framework outlined by the political geographer Edward Soja, in identifying children's engagement with their community landscapes through three points of cognitive contact or 'spaces'. The 'firstspace' comprises measurable and sensory aspects and the 'secondspace' experiences and impressions. Soja's definition of a cognitive 'thirdspace', is used by Raittila to describe the children's progression to an ontological consideration of their environment, as a social and cultural context of some complexity and fluidity, involving symbolism, ideologies and shared rules and values. One could suggest that this thirdspace is the point where Harrison (2015) sees the superficial dualisms that are inherent in an authorized heritage discourse starting to fall away, revealing an ontological connectivity. In the Speightstown engagement model, this connectivity offers the potential for children to feel nurtured by an environment that offers them agency, and to return that nurturing through their active participation.

These child-led tours have helped adults to understand children's sophisticated relationship to their environment and their capabilities as active participants in community development. Together with Kelly and Cutting (2011), Wickett and Huggins (2011), O'Kane (2008), Hart (1992) and Phillips (2014), Raittila (2012) identifies that children are seeking opportunities to do 'real things' within their communities. Their place as 'stakeholders' in the future strategic direction of heritage management in Barbados must clearly be recognized, and this is a model that could be used in other Caribbean islands.

## Conclusion

In post-independence Caribbean nations, a range of new approaches to heritage engagement are being explored (Farmer 2013). The approach reviewed here utilizes an opportunistic approach within community pedagogy to ground the reconceptualization of heritage in collaborative work with two to six year olds, a generation 'othered' by the retention of pre-independence perceptions of young children's capabilities. The potential is to build a connected network of community heritage engagement models across Barbados, based upon Harrison's theory on connectivity ontologies (Harrison 2015) and utilizing the uniquely reflexive and connected nature of this island community. By utilizing freely available resources, proven agentic methods, the power of community and the enthusiastic participation of children, Barbados could lead the field, internationally, in constructing a totally cohesive and connected heritage engagement model, which uniquely places children's rights and sustainable development at its heart.

In Barbados, as in much of the Caribbean, the resources for nature and culture-related tourism are well established, as highlighted in the Caribbean Action Plan for World Heritage 2015-2019 (UNESCO 2014). There are also existing successful processes for hosting academic research visits (University of Winchester 2017). It is therefore conceivable to extend the scope of this heritage initiative over time, to include teacher-training tourism based around the demonstration of a unique, child-centered, heritage engagement model, providing the opportunity to generate funding for heritage engagement opportunities and valuable job opportunities. The long-term gain is seen in local children emerging into adulthood with transferrable skills in heritage, ecology, archaeology, anthropology, communication, lecturing, project management and problem solving; stepping up to confidently protect and promote their countries natural and cultural resources.

From initial concept, the agreed approach within this initiative has been to focus on the gradual, organic growth of a fully sustainable model of multi-generational heritage engagement (University of Winchester 2017). This is a heritage model that grows rhizomatically, securing its roots firmly within the nurturing environment of active communities and sending shoots upwards wherever it feels the warmth and light of a community engagement opportunity. It requires only a small commitment from each of those engaged with heritage and sustainability in Barbados, whether children, parents, community leaders or experts in the fields of teaching, art, heritage, archaeology, ecology, or outdoor learning, as activities are intentionally kept small, and are spread across the communities. Yet together these many small activities can create a huge impact. Community heritage engagement is a powerful tool, but it is only when these activities are linked to long-term sustainability goals, are relevant and nurturing, genuinely cross-generational, democratic, agentic and fully connected, that the elements come together to create a resilient, sustainable and sustaining resource for a nation.

## References

- Alderson, P.  
2008. Children as researchers: participation rights and research methods. In *Research with Children: perspectives and practices*, edited by P. Christensen and A. James, pp. 276-290. Routledge, Abingdon.
- Barghi, R, Z. Zakaria, A. Hamzah and N. Hashim.  
2017. Heritage education in the primary school standard curriculum of Malaysia. *Teacher and Teacher Education* 61: 124-131. Online version DOI: 10.1016/j.tate.2016.10.012 (accessed 12 March 2019).
- Bracey, P.  
2016. 'Shaping the future', black history and diversity: teacher perceptions and implications for curriculum development. *Education 3-13: Journal of Primary, Elementary and Early Years Education* 44/1: 101-112.
- Clark, A. and P. Moss.  
2001. *Listening to Young Children: the mosaic approach*. National Children's Bureau, London.

- Cooper, H.  
2015. How can we plan for progression in primary school history? *Revista de Estudios Sociales* 52: 16-31.
- Dalli, C. and S. Te One.  
2012. Involving children in educational research: researcher reflections on challenges. *International Journal of Early Years Education* 20/3: 224-233.
- Dann, R.  
2013. Be curious: understanding 'curiosity' in contemporary curriculum policy and practice. *Education 3-13: Journal of Primary, Elementary and Early Years Education* 41 /6: 557-561.
- Davis, J.  
2014. Examining early childhood education through the lens of education for sustainability. In *Research in early childhood education for sustainability: international perspectives and provocations*, edited by J. Davis and S. Elliott, pp. 21-37. Routledge, London.
- Denney, D.  
2005. *Risk and Society*. Sage Publications, London.
- Edwards-Jones, A, S. Waite and R. Passy.  
2018. Be curious: understanding 'curiosity' in contemporary curriculum policy and practice. *Education 3-13: Journal of Primary, Elementary and Early Years Education* 46/1: 1-15. Online version DOI: 10.1080/03004279.2016.1176066 (accessed 12 March 2019).
- Farmer, K.  
2013. New museums on the block: creation of identity in the post-independence Caribbean. In *Plantation to Nation: Caribbean museums and national identity*, edited by A. Cummins, K. Farmer and R. Russell, pp. 169-178. Common Ground Publishing, Chicago.
- Gardner, D.  
2009. *Risk: the science and politics of fear*. Virgin Books, London.
- Green, N., P. Reitano and M. Dixon.  
2010. Teaching and learning history in primary schools: pedagogical shifts, complexities and opportunities. *The International Journal of Learning* 17/8: 307-320.
- Guilherme, A. and E. Huttner.  
2015. Exploring the new challenges for indigenous education in Brazil: some lessons from Ticuna schools. *International Review of Education* 61/4: 481-501.
- Hackett, A.  
2014. Zigging and zooming all over the place: young children's meaning making and movement in the museum. *Journal of Early Childhood Literacy* 14/1: 5-27.
- Harrison, R.  
2013. *Heritage: critical approaches*. Routledge, Abingdon.

2015. Beyond 'natural' and 'cultural' heritage: toward an ontological politics of heritage in the age of Anthropocene. *Heritage & Society* 8/1: 24-42.
- Hart, R.  
1992. Children's participation: from tokenism to citizenship, Innocenti essays No. 4. Available online at: [https://www.unicef-irc.org/publications/pdf/childrens\\_participation.pdf](https://www.unicef-irc.org/publications/pdf/childrens_participation.pdf) (Accessed: 3 April 2017).
- Hendrick, H.  
2008. The child as a social actor in historical sources: problems of identification and interpretation. In *Research with Children: perspectives and practices*, edited by P. Christensen and A. James, pp. 40-65. Routledge, Abingdon.
- International Union for Conservation of Nature.  
2017. Connecting nature and culture Available online at: <https://www.iucn.org/theme/world-heritage/our-work/world-heritage-projects/connecting-nature-and-culture> (Accessed: 3 April 2017).
- Kello, K.  
2016. Sensitive and controversial issues in the classroom: teaching history in a divided society. *Teachers and Teaching* 22/1: 35-53.
- Kelly, O. and R. Cutting.  
2011. Understanding places and society through history and geography outside the classroom: from birth to eleven. In *Children Learning Outside the Classroom*, edited by S. Waite, pp. 106-118. Sage Publishers, London.
- Laine, M.  
2016. Culture in sustainability: defining cultural sustainability in education. *Discourse and Communication for Sustainable Education* 7/2: 52-67.
- Mackey, G.  
2014. Valuing agency in young children: teachers rising to the challenge of sustainability in the Aotearoa New Zealand early childhood context. In *Research in Early Childhood Education for Sustainability: international perspectives and provocations*, edited by J. Davis and S. Elliott, pp. 180-193. Routledge, Abingdon.
- Mayall, B.  
2008. Conversations with children: working with generational issues. In *Research with Children: perspectives and practices*, edited by P. Christensen and A. James, pp. 125-155. Routledge, Abingdon.
- McRaney, D. and J. Russick.  
2009. Learning from kids: connecting the exhibition process to the audience. *Curator* 52/2: 183-192.
- O'Kane, C.  
2008. The development of participatory techniques: facilitating children's views about decisions which affect them. In *Research with Children: perspectives and practices*, edited by P. Christensen and A. James, pp. 125-155. Routledge, Abingdon.

- Phillips, L.  
2014. I want to do real things: Explorations of children's active community participation. In *Research in Early Childhood Education for Sustainability: international perspectives and provocations*, edited by J. Davis and S. Elliott, pp. 194-207. Routledge, Abingdon.
- Polistina, K.  
2009. Cultural literacy: Understanding and respect for the cultural aspects of sustainability. In *The Handbook of Sustainability Literacy: skills for a changing world*, edited by A. Stibbe, pp. 117-123. Green Books, Cambridge.
- Powell, G., N. Taylor, D. Anderson, and R. Fitzgerald.  
2013. *Ethical research involving children*. UNICEF Office of Research/Innocenti, Florence.
- Raittila, R.  
2012. With children in their lived place: children's action as research data. *International Journal of Early Years Education* 20/3: 270-279.
- Sandell, K. and J. Ohman.  
2010. Educational potentials of encounters with nature: reflections from a Swedish outdoor perspective. *Environmental Education Research* 16/1: 113-132.
- Sharp, H.  
2012. Australia's 1988 Bicentennial: national history and multiculturalism in the primary school curriculum. *History of Education* 41/3: 405-421.
- Siraj-Blatchford J.  
2009. Conceptualising progression in the pedagogy of play and sustained shared thinking in early childhood education: a Vygotskian perspective. *Educational and Child Psychology* 26/2: 77-89.
- Smith, L.  
2006. *Uses of Heritage*. Routledge, Abingdon.
- Smith, L and E. Waterton.  
2012. *Heritage, Communities and Archaeology*. Bristol Classical Press, London.
- United Nations General Assembly.  
1989. Convention on the Rights of the Child, Adopted and opened for signature, ratification and accession by General Assembly Resolution 44/25 of 20 November 1989. Available online at: <http://www.un.org/documents/ga/res/44/a44r025.htm> (Accessed: 15 April 2017).
- UNCRC (United Nations Convention on the Rights of the Child).  
2015. Consideration of reports submitted by States parties under article 44 of the convention second periodic reports of States parties due in 1997: Barbados. CRC/C/BRB/2 Available online at: <http://www.refworld.org/docid/5853ffe34.html> (Accessed 7 May 2017).



- UNESCO (United Nations Educational, Scientific and Cultural Organization).
2014. Caribbean Action Plan 2015-2019 – UNESCO World Heritage Center, Available online at: [whc.unesco.org/document/135197](http://whc.unesco.org/document/135197) (Accessed: 8 April 2017).
- 2017a. World Heritage and Sustainable Development. Available online at: <http://whc.unesco.org/en/sustainabledevelopment/> (Accessed: 15 April 2017).
- 2017b. The kit: world heritage in young hands. Available online at: [http://whc.unesco.org/en/educationkit/world heritage in young hands](http://whc.unesco.org/en/educationkit/world%20heritage%20in%20young%20hands) (Accessed: 10 April 2017).
- 2017c. Learn from nature: exploring our natural world – understanding our connections with the same. Available online at: <https://environmentaleducationuk.wordpress.com/jargon-busterfor-kids/world-heritage-sites-for-kids/> (Accessed: 15 April 2017).
- 2017d. Exploring global realities. Available online at: [http://www.unesco.org/education/tlsf/mods/theme\\_a/mod01.html](http://www.unesco.org/education/tlsf/mods/theme_a/mod01.html) (Accessed: 10 April 2017).
- University of Winchester.
2017. Speightstown Archaeological Research Project, Barbados Available online at: <http://www.winchester.ac.uk/academicdepartments/archaeology/Research/Pages/SpeightstownArchaeologicalResearchProjectBarbados.aspx> (Accessed: 15 April 2017).
- Viz, Y., D. Golden and T. Goldberg.
2015. Teaching traumatic history to young children: the case of Holocaust studies in Israeli kindergartens. *Early Education and Development* 26: 520-533.
- Walker, S. and N. Haywood.
2009. Understanding Slavery Initiative. Scoping approaches for primary school delivery Final report Available online at: [http://www.understandingslavery.com/index.php?option=com\\_content&view=article&id=830&Itemid=201.html](http://www.understandingslavery.com/index.php?option=com_content&view=article&id=830&Itemid=201.html) (Accessed: 9 March 2017).
- Wickett, K. and V. Huggins.
2011. Using the local community as part of the early years learning environment. In *Children learning outside the classroom*, edited by S. Waite, pp. 35-49. Sage Publications.



# Participation, Democratisation and Digitisation. A Post-modern Approach to Barbados' Heritage in the twenty-first century.

*Niall Finneran, Laura Hampden & Alice Lathbury*

## **Abstract**

Contemporary approaches to heritage interpretation and management increasingly emphasize the role of digital media and platforms: web sites, smart phones, virtual reality and visualisation. There is a whole technological niche devoted to the digitization of the heritage interpretation and management process. This, however, can be a double-edged sword; benefits related to accessibility and ease of access can be subsumed within the wider notion of professionalization, lack of sustainability and cost. In this paper the authors draw from a range of disciplines argue for a community-based and sustainable approach to heritage management for twenty-first-century Barbados grounded very much in the post-modern moment.

**Keywords:** *community heritage; digital heritage; sustainability; participation.*

## **Introduction**

In the twenty-first century we have become accustomed to engaging with an amorphous mass of digital data derived from a variety of different sources. The internet has changed the way we live and study, a totem of the postmodern condition (Nunes 1995). This may or may not be a good thing; the wide availability of digital material allows for more democracy in exchanging views and ideas, and provides open platforms that have hitherto not existed (Carletti 2016). In contrast, as recent political events have proved, the ability to quality control and check facts cannot keep pace with the sheer volume of online material that is in the public domain (King *et al.* 2016: 79). The 'cult of the expert' has become eroded, and the forum for debate and discussion

has opened up (Adair *et al.* 2011). This is a broad and perhaps slightly alarmist perspective, but as ever much that happens in the wider world is mirrored in the microcosm of heritage management within this wider cultural 'post-modern' context (of which more, later). This tension between community and heritage asset is at the core of this contribution, and the possible mediating role that can be played by the imaginative use of digital tools.

This chapter will look at the possibilities for using digital media to help with the management and wider interpretation of the tangible and intangible heritage of Barbados and will reflect on similar strategies in use elsewhere in the Caribbean and on the global stage. Taking the view that this sort of approach can be positive (and is, as we shall see, very much part of a post-modern approach to heritage management), we will consider the means by which digital heritage can be made to be both effective and sustainable. The material discussed here is based upon a recent scoping study that the authors have undertaken in relation to building a digital approach to heritage management in Barbados. The study, which is very much ongoing and evolving, is entitled 'Digital Heritage Generation Barbados 2016' and has been funded by the University of Winchester and involves the interplay between staff and students on the masters programme in cultural heritage and resource management, and local stakeholders. Described in more detail below, the planning and evolution of this study reflected the tremendous local and international energy and interest surrounding the fiftieth anniversary of Barbados' independence in November 2016. As with any study such as this, the ideas are entirely 'consumer' driven. We have set out with concepts and likely problems, and sought consultation with a wide range of local stakeholders, and in turn these ideas are reinterpreted and revisited. This is therefore a very hermeneutic approach, and at no stage can we in the course of this chapter state that we have found the 'right' answers, if indeed they exist.

In a sense then much of what is outlined here is necessarily speculative, reflecting the dynamic nature of heritage studies as a whole and the complexities of community engagement. In order to frame and ground the study, the first section will discuss the notion of digital heritage within the context of a twenty-first century post-modern/supra-modern heritage management landscape (Hannabuss 1999). We will then go on to introduce the goals of our project and how it has been designed. We hope, at the end of this chapter, to have given some indication of the imaginative and creative methods that can be deployed to engage people with the heritage around them in a sustainable and effective manner.

### **Digital heritage/postmodern heritage**

At the outset it would be useful to actually define what digital heritage means. UNESCO (2016) offers a workable, if perhaps uncritical perspective. It is seen as being 'computer-based' (perhaps showing a lack of familiarity with other media?) and emphasizes the notion of durability of information storage, thus stressing very clearly the implications for preservation (Karp 2004). There is less of a stress, for example on ideas of accessibility, or implications for stakeholders. The emphasis here at least appears to be on longevity:

*'making sure this burgeoning digital heritage (defined as including texts, databases images, audio, graphics etc.) remains available is thus a global issue relevant to all countries and communities'* (UNESCO 2016).

This is only part of the story, however. Digital heritage is more than just being about a future-proof storage medium for digital resources. The use of digital heritage strategies would require us to recognise their potential to empower communities and heritage professionals alike, to democratise strategies for recognising and curating heritage, to engage and involve people, and to make the whole exercise of heritage management more participatory and sustainable (and inclusive, fostering two-way dialogue between 'amateur' and 'professional').

Digital approaches to heritage management therefore belong within the continuum (if that is not too formal a way of describing it) of post-modernist perspectives on heritage studies (Harvey 2001). These have been well articulated, for example, by Harrison and Schofield (2010, although they refer to the concept as 'supra-modern'); they see an emphasis on opening up heritage to embrace the mundane, the dystopic, and perhaps the anti-aesthetic (such as industrial and post-industrial heritage). Heritage within this context is about blurred boundaries, and they are very clear that mass media and the application of digital technology is all part of the supra modern approach to heritage praxis. After all, it is an empowering and democratic tool. In addition, these tools enable more effective and widespread 'consumption' of heritage (Goulding 2000) yet could, paradoxically, also in a sense 'preserve' digital heritage within a digital vault, somehow unchanging and inaccessible (Cameron and Kenderdine 2010). A more cautious approach to the possibilities afforded by the use of digital media in heritage is needed (King *et al.* 2016). It is not a panacea for all ills.

How could this work in Barbados? Caribbean islands in general possess entangled and problematic heritages. In Barbados, for example, pre-contact heritage (an unsatisfactory term) is not a heritage with any immediate implication to the contemporary inhabitants of the island. By this, we mean that we do not see the sorts of community and social engagement we find further north in the Windwards in Dominica, where the Kalinago territory on the island's east coast, for example, represents a focus for the interface between tourists and indigenous peoples, a place of real 'living history' even though the issue of 'authenticity' rears its head (Hudepohl 2008). Similar approaches to indigenous Caribbean peoples' heritage can be found elsewhere in the Windwards, in Trinidad and further north in the Greater Antilles (where particularly in Puerto Rico the rather idealised social memory of the Taino is celebrated and consumed; cf. Forte 2002). Into the colonial period, the heritage of the sugar industry and Atlantic slavery, and the heritage of resistance movements (maroons, 'brigands' etc.) is a well-covered topic, and naturally remains contentious.

Leaving aside these two obvious examples, a post-modern approach to Caribbean heritage in general, and Barbadian heritage in particular, would demand a consideration, perhaps, of the development of holiday resorts and tourism infrastructure, as well as transportation links (such as the railway), industry beyond the sugar plantation, and even the historic Cold War sites at USN Harrison's Point base and the High Altitude Research Project site in Christchurch (Atlas Obscura 2013), both offering scope for bringing a more contemporary perspective to military heritage, moving beyond the

Georgian fortification and iron cannon. And these examples are just the proverbial tips of the iceberg; the work of Matthew Reilly (Reilly this volume) has demonstrated the potential for unlocking the stories of other island subaltern social segments; archives, national and private, offer an unparalleled resource to all heritage 'stakeholders'. And what of music, art, dance, ritual and cuisine?

The point we are making here is that the heritage of Barbados is rich, diverse and constantly in flux. The dominant 'narrative' (or to use Laurajane Smith's term Authorised Heritage Discourse; Smith 2006: 16) obviously and rightly centralises and prioritises the place of slavery and resistance, but in taking, as Harrison and Schofield urge us, a more post-modern approach, more vistas open up. The definition of what constitutes Barbadian heritage becomes broader, and arguably to help make sense of this, digital approaches are needed.

Before digging into the detail about the nuts and bolts of the digital interface, it is worth considering how this could be done in general terms. Facebook is the obvious forum for energising debate about heritage in a relatively open and democratic way, even if there is always potential for issues to become hijacked or politicised (but that is the point of a postmodernist approach to heritage). The Facebook pages of the Barbados Museum and Historical Society showcase ongoing issues in heritage management and presentation (<https://www.facebook.com/barbadosmuseum/>), as does the National Trust (<https://www.facebook.com/BarbadosNationalTrust/>). At The University of the West Indies, Dr Tara Inniss-Gibb's History Forum (<https://www.facebook.com/groups/292901264079693/>) engages in regional and global debate (and incidentally, from the viewpoint of a European-based academic writing here, allows a fascinating window into local concerns and preoccupations about wider heritage debates. Such cross-cultural analysis is highly valuable in the pedagogical heritage context). In short though, any academic, or heritage manager, should be familiar with and receptive to the possibilities offered by Facebook, and it is not our intention here to pursue what should hopefully be a very clearly recognised approach to energising and engaging stakeholders in debate. We decided on other approaches.

### **Digital Heritage Generation Barbados 2016**

In 2015, one of the present authors (LH) began to formulate ideas for creating an imaginative digital approach to recording and managing Barbados' heritage. Laura is herself from a Barbadian background, and works for the Greater London Archaeology Advisory Service (GLAAS), part of Historic England (she is partly responsible for maintaining a digital database of all historic sites, from prehistoric to modern, in the area) whilst also working alongside the Barbados and Friends Association (Reading), Reading Museum, and the University of Reading (Berkshire, England) to prepare a community heritage celebration of Barbados' fiftieth anniversary of independence. (It may not be well known that the Town of Reading has one of the highest concentrations of Barbadians in England, dating back to post World War Two Caribbean migration; in fact, Reading is 'twinned' with Speightstown; see <http://www.bafa-reading.org.uk/>). This background is important because it brings together a number of interlinked issues in heritage management and engagement that have informed the design of the project.

First, as Kevin Farmer has already stated (Farmer 2008) the development of an electronic database of all heritage assets in Barbados is of vital importance. This is of course a policy recommended by UNESCO and one that has implications for scholars and academics, researchers, the public and property owners and developers alike (if the system of listing is linked to a meaningful framework of protective legislation). This sort of database, known in the UK as an HER (see above) or previously known as an SMR (Sites and Monuments Record) has been present in varied forms of incarnation for many years (Darvill *et al.* 1987). They started out as statutory local authority lists (actually in hard copy paper and map form). Since the 1990s these records have been progressively digitised, edited, updated and quality control checked. HER's have now developed into broader data management systems that have moved beyond simple lists of historic sites to represent the wider historic environment. Perhaps most importantly HER's are available for consultation by the public through the web portals Heritage Gateway (a GIS-based comprehensive meta-database searching individual county and national databases; <http://www.heritagegateway.org.uk/gateway/>) as well as the less comprehensive but more user friendly PastScape (<http://www.pastscape.org/>). So, even before we talk about digital accessibility in Barbados, the actual database has to exist, and at this stage it does not.

Let us pause here to consider the pragmatic implications of the creation of the database, because it has implications for the digital model we are discussing here. Firstly, the data have to be gathered. Each pre-existing (where known) and extant historic site should be allocated a unique reference number and location, and a detailed description. A strict set of thesaurus terms need to be agreed upon to ensure commonality of approach, so for example chronological periods may relate to specific centuries AD in more recent times, or further back in the past, centuries or even millennia (Navigli and Velardi 2006). The typology of the site also requires special consideration. A discrete site could be a slave hut, a plantation house, a windmill, a fortification, or a well, a burial, a findspot of a piece of pottery or a coin, or even a historic ship (or, as noted above, an entire HARP gun base, or Concorde) or a combination of all. There are many different scales of 'site' or 'monument' and of course there are many overlaps too. This might sound like an overly semantic issue, but the correct and disciplined use of terminology will reflect of the ultimate ability to search, extract and disseminate data effectively from the computerised database.

Having established the broad framework for the heritage list, we need then to 'populate' (as the terminology has it) the database. Let us take the Barbados Museum as a case study for how this might be done. All historical sources pertaining to the building itself would need to be consulted; a detailed description based upon these sources would have to be written and separate source records created. Sources might include historic imagery, photography, mapping and building plans that could all be used to augment the database record. Depending on the nature of the site it is possible that individual features of special note, such as associated canon, or even the marble 'laver' at the entrance, could each be assigned individual monument/site records. This is just a single building in the whole Garrison, which is itself a group of buildings in a UNESCO World Heritage Site, which in turn is situated within a wider historic townscape. It should be apparent that even gathering this material, on just a single building, is going to be a highly complex and time-consuming exercise. Then when

one considers the number of other heritage assets in Barbados, it becomes apparent that this is a hugely expensive logistical exercise.

In the UK the development and management of heritage asset databases (HERs or SMRs) has been underpinned by professional local authority planners and, and professional archaeologists, whose jobs are to facilitate balance between sustainable development and the preservation and care of the historic environment. Maintaining, enhancing and ensuring the accuracy of an HER database through the addition and dissemination of developer funded, academic and public research is integral to this cause. With the recent economic downturn, many of these jobs have been pared back, HER Officers (HERO's) must focus on the tasks that generate income (such as providing data to developers who are required to consider known heritage assets and potential historic sites above and below ground prior to development) rather than routine enhancement of the HER. Enhancement of data is often undertaken by experienced volunteers or student placements, people who already have some working knowledge of archaeology and the planning system in the UK. This in itself can be an expensive exercise as many HER's use database systems that require the purchase of a licence for each existing user. Moves are afoot though to streamline the system. GLAAS and the City of Leicester for example will be switching to ARCHES, a cloud-based system designed by Getty that will enable access to the database from just about anywhere. Staff and volunteers can work from home making it more accessible.

In Barbados, however, there is no professional cadre of monuments inspectors (nor the revenue to fund and maintain a similar HER system as is used in the UK), and nor is there likely to be one any time soon. A number of solutions suggest themselves. Firstly, the database of historic sites and assets is pared back to the absolute minimum, perhaps focusing exclusively on the UNESCO WHS. Given the rather narrow nature of the designation, is that a meaningful snapshot of the entirety of Barbadian heritage? Arguably it is not, and how does an individual from St Lucy or St Peter Parish, for example, engage with this 'tip' of the iceberg? Could national coverage be achieved in very brief and outline form using members of the key NGOs, for example the National Trust, or BMHS, co-ordinated centrally from the Museum or the University?

The emphasis in this contribution is clearly upon the community, upon engagement and upon not setting any boundaries as to what 'heritage' should mean. One solution we have alighted upon is the concept of crowd sourcing, an approach pioneered in a Caribbean context by the Nexus 1492 project in St Kitts and Nevis (<http://www.nexus1492.eu/?portfolio=what-does-kittitian-heritage-mean-to-you-announcing-culturesnaps-kn>), and in the UK by projects such as Enriching the List (ETL) (<https://historicengland.org.uk/listing/enrich-the-list/>) the Thames Discovery Programme (<http://www.thamesdiscovery.org/>) and Museum of London's CITIZAN (Coastal and Intertidal Zone Archaeological Network; <http://www.citizen.org.uk/>), which involves one the current authors (NF). In a sense the Barbados Beyond Boundaries web project (<http://www.barbmuse.org.bb/web/about-us/barbados-at-50-appeal/barbados-beyond-boundaries/>) is also part of this continuum of 'crowd-funded' approaches to heritage management (Zacklad and Chupin 2015). In all cases, the onus is placed directly upon the 'community' to engage with historic assets around them (Labrador and Chilton 2009).



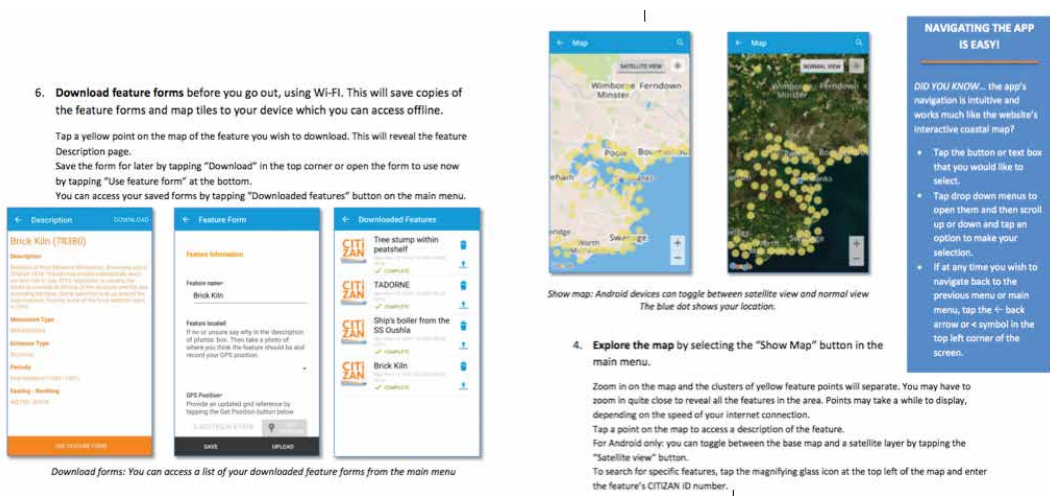


Figure 18.1. Screen grab of the CITIZAN smartphone app. Digital specialists at the University of Winchester are working alongside heritage specialists to develop a version for use in Barbados. Not all of the features, of course, will be relevant (credit: [http://www.citizen.org.uk/media/medialibrary/2016/11/How\\_to\\_use\\_the\\_app.pdf](http://www.citizen.org.uk/media/medialibrary/2016/11/How_to_use_the_app.pdf)).

To illustrate how crowd funded approaches to heritage management and engagement might be achieved, let us use the CITIZAN example as a case study (there are many more versions of this approach widely in use globally, it should be stated. In all cases the reference to UK heritage practice derives from the fact that the present authors are working within its framework, and implies no notion of qualitative superiority!). The CITIZAN ethos is very much one that could be adopted for a Barbadian model. For a start, CITIZAN focuses upon the impact of climate change on historic coastlines, and the realisation that professional archaeologists cannot keep an eye at all times on the dynamic and ever changing historic coastal and intertidal estuarine environments. For example, a storm could one day reveal an important and hitherto unknown shipwreck on a beach, which could be at risk of immediate destruction. The case of the discovery of Seahenge in Norfolk is a salutary example of the dynamic nature of coastal environments. It is no different in the Caribbean; Port Royal in Jamaica is just one example of this issue. What CITIZAN does is place the onus of recording upon the casual observer, the walker, or boatman. The interface for doing this is through a smartphone app (Figure 18.1).

The app can be downloaded from the CITIZAN website and works in IOS or Android formats and is entirely free of cost. Embedded within the app is a full set of digital mapping for England (it is not a UK-wide application). The app gives one the ability to record one's position anywhere in England using the inbuilt GPS in the phone (this does not require network coverage). The basic mode of use is this. If one encounters an interesting looking historic maritime site (it could be a wreck or hulk, or even a piece of pottery) the app prompts you to record your general position via GPS, and to take photographs of the object (ideally using some form of scale and north arrow). The app also shows your position relative to known recorded sites originating from a variety of sources including data obtained from relevant local/

regional HER's. One is then taken to a series of drop down thesaurus terms, a simplified approach to databasing, and one that is very user friendly. So, for example, you are encouraged to guess at the possible chronological attribution (for the CITIZAN thesaurus this could be from the Lower Palaeolithic to the contemporary period, perhaps as much as half a million years!). The user is encouraged to try to define the function of the artifact or site (for example iron ship wreck, pottery, wooden ship, fish trap, bridge, quay etc.). The user is also asked to record the physical state of the site as well as coastal, tidal and weather conditions. The user then submits (*i.e.* uploads) the record from the app to a centralised quality control checking system, run by CITIZAN. Then one of two things happens: if the site is already known about and listed, the 'new' information can form a valuable assessment as to possible risks to the site or issues of site degradation. Alternatively, the site could be a new discovery, and will thus be assigned a new record, and if it is deemed important will most likely be the subject of a visit from professional archaeologists.

Let us now translate this concept into the app currently under development by the University of Winchester for use in Barbados. We would envisage the app that is designed to work offline to account for discrepancies in mobile network coverage to be downloadable through a combination of stakeholder (and perhaps commercially sponsored) websites, such as the UWI, BMHS and National Trust. Users would be encouraged to use the app as a means of creating a consistently formatted record which can be easily embedded within the HER database of the new HER, so like the CITIZAN app would contain digital mapping, perhaps based upon Google Imagery, and a drop down thesaurus form asking for site description, function and chronology. For obvious reasons, unlike the CITIZAN app, one might expect a single discrete term such as 'slave hut' or 'chattel house' to be used. Other features of the historic Barbados landscape would have to be defined as well, such as duck shooting swamps and ponds, historic track ways, wells, chapels and places of worship, and also individual grave-stones and memorials. Find spots and individual artifacts are also important sources of information, so perhaps a simplified approach to historical ceramics and material culture (for example terms such as 'blue and white pottery'; 'white pottery', 'rough red pottery', 'clay pipe') and prehistoric ceramics (for example 'smooth red pottery with incisions/lines') would be usable and accessible descriptive terms.

We now run up against the obvious limiting factor of this approach: making sense of the huge cloud of uploaded data. This will entail condensing widely-based crowd sourced data into a more standardised and focused (semi-professionalised) accessible system. The uploaded data and associated material would be geo-referenced, checking on duplication of new and existing records and general issues of quality control. We are assuming that a limited HER framework exists, and that we have designed the app in such a way as to ensure consistency and quality of information, and easy transference of data between the app/web based system and an HER database. This is not, at this stage, sustainable though the UWI, National Trust or BMHS, although could as a task be shared out among postgraduate heritage students, for example, and not just in Barbados.

Ideally the HER database would be set up to allow many individuals to use it at one time, on and off the island. A similar approach to HER database management is currently under way in the UK where rising costs and limited resources (as men-

tioned above) has prompted some local authority and advisory services to explore alternative cloud-based options (<http://news.getty.edu/press-materials/press-releases/getty-conservation-institute-historic-england-city-of-lincoln.htm>). The end result would be a relatively rapid population of an island-wide HER database, and perhaps most crucially a valuable exercise in moderately large-scale community heritage participation (Giaccardi 2012).

### **Going further with digital heritage**

The forgoing discussion has focused upon a participatory and communal exercise in helping generate a digital database of island-wide heritage assets. There are other issues regarding the application of digital methodologies within the heritage sector that could form the basis of related projects, again with the caveat that the overarching philosophy is accessibility, cost effectiveness and sustainability. Computing in the museum environment was an issue that faced initial resistance, but has seen a complete rethink in the way museums are run and organised, with a significant impact upon outreach and engagement (Parry 2007a; 2007b). There is scarcely a Museum in the world without some form of digital interpretation (Miller *et al.* 1992). Object digitisation has now turned the physical artifact into the virtual artifact, and has profound implications through for visitor and scholarly engagement (Newell 2012), making the material immaterial and transforming the way we perceive and understand (Buchli 2016). Perhaps a heavier emphasis upon more portable and affordable digital approaches will allow for the wider development of more community based, temporary 'pop up exhibitions' across the island, tying into specific community events and celebrations of historic places (DelCarlo 2012).

One of the current authors (AL) is completing a study in the possibilities of the use of online catalogues and document digitisation within the public and the private archive. This has real resonance in Barbados where interest in genealogy and family history has been developing over the years, and new web-based approaches to the recording and organisation of this material are being trialled (Harriet Pierce pers. comm.). The integration of these document sources with oral history records is also an issue to which we have been giving thought in relationship to the Speightstown Project (Finneran, Gray and Lichtenstein this volume). In the UK the Arts and Humanities Research Council-funded Pararchive participatory project offers a useful model to the development of multi-media approaches to telling community stories (see <http://pararchive.com/>; cf. Yarn 2015); the value of community outreach and training projects cannot be underestimated in terms of making the end product more effective and useful. Finally, archaeologists are also alive to the possibilities of the use of digital methodologies to publicise projects (as we have done with the Speightstown project) and keep local people informed and up to date with progress. The affordability of three-dimensional scanners allows for the virtual recreation of artifacts and, on a larger scale, cave sites, as has recently been demonstrated by Doug Armstrong at Trents Plantation (Armstrong 2015).

Digital heritage offers an empowering community approach, it has the benefit of engaging and stimulating, and above all making the experience of recording a heritage asset a personal one (cf. Samuel 1994). It is this first-person linking enabled by digital

heritage tools that gives an emotional impact, and a different form of ‘experience’ (Enhuber 2015; Hogsden and Poulter 2012; McIntosh and Prentice 1999). In addition, these avenues offer significant economic benefits too, enabling local stakeholders to retain a central role in development of heritage tourism strategies (Aas *et al.* 2005), and redefining, in a way, the interplay between the professional heritage sector and those of the ‘stakeholders’ (Giaccardi 2012; Stein 2012; Thornham and Pople 2013). This all needs good planning and thinking round, however: ‘In a sense the cultural value of a digital encounter can only be fully realised if the digital system itself is designed to meet the needs of the users appropriately (King *et al.* 2016: 88). Training and capacity building is essential, yet we also need to make sure we do not get stuck in the same digital rut, so to speak, and continue to innovate (Navarrete 2014) whilst at the same time revisiting policy approaches and best practice (McGovern 2013). The foregoing discussion has perforce been of a rather speculative nature, offering ideas and concepts rather than hard-edged solutions, but what should be clear is that the challenges facing the heritage of Barbados in the twenty-first century require imaginative and unconventional solutions. The best place to find such solutions is in the digital world.

## References

- Aas, C., A. Ladkin and J. Fletcher.  
2005. Stakeholder collaboration and heritage management. *Annals of Tourism Research* 32/1: 28-48.
- Adair, B., B. Filene and L. Koloski (editors).  
2011. *Letting Go? Sharing Historical Authority in a User Generated World*. Left Coast Press, Philadelphia.
- Armstrong, D.  
2015. Archaeology of the enslaved laborer Settlement at Trents Plantation: 2014-2015. *Journal of the Barbados Museum and Historical Society* 61: 146-177.
- Atlas Obscura.  
2013. <http://www.atlasobscura.com/places/project-harp-space-gun-barbados> (accessed April 23 2017).
- Buchli, V.  
2016. *The Archaeology of the Immaterial*. Routledge, London.
- Cameron, F. and S. Kenderdine (editors).  
2010. *Theorising Digital Cultural Heritage*. MIT Press, Cambridge, Mass.
- Carletti, L.  
2016. Participatory heritage: scaffolding citizen scholarship. *International Information and Library Review* 48/3: 196-204.
- Darvill, T., A. Saunders and B. Startin.  
1987. A question of national importance: approaches to the evaluation of ancient monuments for the Monuments Protection Programme in England. *Antiquity* 61/233: 393-403.

DelCarlo, M.

2012. Conversation and community: An exploratory study of the pop-up museum concept. Unpublished Master's Thesis. University of Washington, Seattle, WA. Available online at: [http://www.exhibitfiles.org/dfile2/ReviewWalkthrough/699/original/DelCarlo\\_ThesisProject\\_2012.pdf](http://www.exhibitfiles.org/dfile2/ReviewWalkthrough/699/original/DelCarlo_ThesisProject_2012.pdf). (accessed 20 February 2019).

Enhuber, M.

2015. Art, space and technology: how the digitisation of art space affects the consumption of art. A critical approach. *Digital Creativity* 26/2: 121-138.

Farmer, K.

2008. Forward planning: the utilization of GIS in the management of archaeological resources in Barbados. In *Archaeology and Geoinformatics: case studies from the Caribbean*, edited by B. Reid, pp. 74-85. University of Alabama Press, Tuscaloosa.

Forte, M.

2002. We are not extinct: The revival of Carib and Taino identities, the Internet, and the transformation of offline indigenes into online 'N-digenes'. *Sincronia* 1/2: 32-37.

Giaccardi, E.

2012. *Heritage and Social Media: understanding heritage in a participatory culture*. Routledge, Abingdon.

Goulding, C.

2000. The commodification of the past, postmodern pastiche and the search for authentic experiences at contemporary heritage attractions. *European Journal of Marketing* 34/7: 835-853.

Hannabuss, S.

1999. Post-modernism and the heritage experience. *Library Management* 20/5: 295-302.

Harrison, R. and J. Schofield.

2010. *After Modernity: Archaeological approaches to the contemporary past*. Oxford University Press, Oxford.

Harvey, D.

2001. Heritage pasts and heritage presents: temporality, meaning and the scope of heritage studies. *International Journal of Heritage Studies* 7/4: 319-338.

Hogsden, C. and E. Poulter.

2012. Contact networks for digital reciprocity. *Museum and Society* 10/2: 81-94.

Hudepohl, K.

2008. Community agency and tourism initiatives in Carib Territory, Dominica. *Journal of Heritage Tourism* 3/4: 231-241.

Karp, C.

2004. Digital heritage in digital museums. *Museum International* 56/1-2: 45-51.

- King, L., J. Stark and P. Cooke.  
2016. Experiencing the digital world: the cultural value of digital engagement with heritage. *Heritage and Society* 9/1: 76-101.
- Labrador, A. and E. Chilton.  
2009. Re-locating meaning in heritage archives: a call for participatory heritage databases. *Computer Applications to Archaeology 2009 Proceedings*. Available online at: [http://s3.amazonaws.com/academia.edu.documents/36626353/labrador\\_contribution386\\_c\\_1.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1493221418&Signature=clvhzZ0nuo2z%2B4coLIYMhA0USpc%3D&response-content-disposition=inline%3B%20filename%3DRe-locating\\_Meaning\\_in\\_Heritage\\_Archives.pdf](http://s3.amazonaws.com/academia.edu.documents/36626353/labrador_contribution386_c_1.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1493221418&Signature=clvhzZ0nuo2z%2B4coLIYMhA0USpc%3D&response-content-disposition=inline%3B%20filename%3DRe-locating_Meaning_in_Heritage_Archives.pdf) (accessed 27th April 2017).
- McGovern, M.  
2013. Digital asset management: where to start. *Curator* 56/2: 237-255.
- McIntosh, A. and R. Prentice.  
1999. Affirming authenticity, consuming cultural heritage. *Annals of Tourist Research* 26/3: 589-612.
- Miller, G., E. Hoffert, S. Chen, E. Patterson, D. Blacketter, S. Rubin, S. Applin, D. Yim, and J. Hanan.  
1992. The virtual museum: Interactive 3d navigation of a multimedia database. *The Journal of Visualization and Computer Animation* 3/3: 183-197.
- Navarette, T.  
2014. Becoming digital: a Dutch heritage perspective. *Journal of Arts Management, Law and Society* 44/3: 153-169.
- Navigli, R. and P. Velardi.  
2006. Enriching a formal ontology with a thesaurus: an application in the cultural heritage domain. In *Proceedings of the 2nd Workshop on Ontology Learning and Population: Bridging the Gap between Text and Knowledge-OLP*. Unpublished paper available online at: [http://olp.dfki.de/olp2/olp2\\_cfp.htm](http://olp.dfki.de/olp2/olp2_cfp.htm) (accessed 27 April 2017)
- Newell, J.  
2012. Old objects, new media: historical collections, digitization and effect. *Journal of Material Culture* 17/3: 287-307.
- Nunes, M.  
1995. Jean Baudrillard in cyberspace: internet, virtuality, and postmodernity. *Style* 29/2: 314-327.
- Parry, R.  
2007a. *Recoding the Museum: digital heritage and the technologies of change*. Routledge, London.  
2007b. Digital heritage and the rise of theory in museum computing. *Museum Management and Curatorship* 20/4: 333-348.

- Samuel, R.  
1994. *Theatres of Memory: Past and Present in Contemporary Culture*. Verso, London.
- Smith, L.  
2006. *The Uses of Heritage*. Routledge, Abingdon.
- Stein, R.  
2012. Chiming in on museums and participatory culture. *Curator* 55/2: 215-227.
- Thornham, H. and S. Popple.  
2013. *Content Cultures: Transformations of User Generated Content in Public Service Broadcasting*. I B Tauris, New York.
- UNESCO.  
2016. Concept of Digital Heritage. Available online at: <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/preservation-of-documentary-heritage/digital-heritage/concept-of-digital-heritage/> (accessed 1st March 2017).
- Yarn.  
2015. Yarn, available online at <http://yarncommunity.com> (accessed 1st March 2017).
- Zacklad, M. and L. Chupin.  
2015. Scientific and Heritage crowdsourcing at the crossroads of models of coordination and cooperation: the case of digital herbaria. *Canadian Journal of Information and Library Science* 39 3/4: 308-328.





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## Of Roots and Routes

### Visioning Barbados' Cultural Heritage through Trails Development

*Tara A. Inniss*

#### **Abstract**

Many approaches to cultural heritage site management in the Caribbean tend to be very much 'site focused', centered upon a discrete building (such as a fortification house, museum or plantation building) or a group of buildings (such as the Historic Bridgetown and its Garrison UNESCO World Heritage Site). By their nature these sites tend to be representative of conceptions of traditional built or architectural heritage and perhaps not representative of the day-to-day elements of community heritage, or indeed is this site-centered approach appropriate for sites that have disappeared yet still retain a great importance for social memory (intangible/tangible sites, such as the Barbados Slave Route). This contribution argues that an effective approach is to knit sites together through user-friendly trails, a means of heritage interpretation that is cost-effective, flexible and audience centered.

**Keywords:** *heritage routes, heritage trails, sustainable heritage, community heritage.*

#### **Introduction**

Since the inscription of Historic Bridgetown and its Garrison as a World Heritage property in 2011, Barbados has witnessed growth in walking and bus tours by mostly Barbadian participants, not only in the World Heritage property, but also across the island. Like the popular bus excursions of yesteryear, traversing the landscape while experiencing heritage sites has become a popular past time for Barbadians and visitors. But more than that, audiences are seeking historical interpretation of their landscape,

often with the aim of understanding aspects of their national history that are not readily explained in formal contexts such as classrooms and museums. Certainly, at the Cave Hill Campus of The University of the West Indies (UWI), the Department of History and Philosophy has been hosting at least two bus tours per academic year since 2010 for the benefit of its students in several courses. Students have had limited exposure to Barbadian history in schools due to a policy decision in the 1990s to transition to a social studies syllabus, which in most schools has no specific concentration on history until students reach secondary school. University lecturers have found that historical tours have become an important learning tool for delivering content and making it relevant to students, many of whom either report not knowing that many sites exist or that the narratives of enslavement, resistance and rebellion are new to them.

Tours are critical ways of engaging the Barbadian public in knowledge of its past and cultural roots. The development of cultural heritage routes is one way of creating unique heritage tourism products that cater to not only locals, but visitors as well. Moreover, the development of cultural heritage projects such as heritage routes or trails also has the potential to address past injustices as it seeks to create access points for their exploration of the past, including slavery and emancipation. Similarly, cultural heritage projects that become designated open spaces and trails provide access to the much-needed recreational space for Barbadians and visitors. After generations of being alienated from the landscape through successive political and economic policies restricting working class ownership and occupation of plantation lands, the identification and use of such routes or trails provides Barbadians with the ability to reclaim these spaces as their own in the post-Independence period (Barrow 1983; Downes 2002). Cultural heritage routes such as multi-purpose trails also provide access to recreational activities that can also help to reverse the modern-day scourge of chronic non-communicable diseases (CNCDs) by encouraging physical activity and healthy lifestyles.

The creation of heritage trails integrates several areas of social and economic policy in a small state such as Barbados with limited land and natural resources. The integration of cultural policy into land use policy in Barbados requires visionary approaches to using existing, but underutilized cultural resources, such as heritage buildings and sites to create areas that will bring life to the cultural sector, an often under-financed area of public sector policy. The economic benefits of investing in heritage development, and especially trails, have to be made explicit to both the public and private sectors due to resource constraints. Using legislative incentive schemes such as the *Cultural Industries Development Act* (2015) and the *Tourism Development Act* (2002) may make it easier for cultural heritage projects to attract funding from private benefactors who are drawn to tax-friendly philanthropy and/ or organizations wishing to improve the tourism product.

However, it is crucial that the cultural heritage being leveraged is actually being protected in the first place. Built heritage and archaeological sites must be protected through robust antiquities and physical development policies, which are not currently in place here. For example, the *Preservation of Antiquities and Relics Bill* (2011) was scuttled the same year it was introduced in Parliament. Although the legislation would have strengthened the preservation of monuments, sites and relics, certain interest groups felt that it constituted an intrusion into private collections of 'relics' and questioned the authority of the agencies which would be responsible for its implemen-

tation. Currently the *Town and Country Planning Act* (1985) protects listed buildings, but the penalties for damaging and/or destroying them are relatively insignificant so that buildings are often destroyed without planning permission. This legislation is currently being revised and will strengthen policies to protect such sites and buildings.

This chapter focuses on the development of cultural heritage trails in Barbados using two case studies: 1) The Barbados Slave Route; and 2) The Barbados Trailway Project. Both projects have been conceptualized to create heritage trails linking heritage sites along designated routes.

### **The Barbados Slave Route Project**

The Barbados Slave Route project evolved from a 2003 Ministry of Tourism-led signage project to identify sites associated with the slave trade, slavery and emancipation in Barbados which built on the research carried out under a regional UNESCO/World Tourism Organization (WTO) Cultural Slave Route Project which sought to identify sites throughout the region associated with the trans-Atlantic slave trade and enslavement of Africans. The project was also linked to the African Diaspora Heritage Trail (ADHT), which was first organized in Bermuda in 2002. In 2008, the Barbados Museum and Historical Society (BMHS) and the Ministry of Tourism in conjunction with the then Barbados Tourism Authority (BTA) erected the first phase of signage in both urban and rural Barbados, largely concentrated in Bridgetown and the parishes of Christ Church and St. George. The organizations also collaborated on developing a special pilot tour called 'Freedom Footprints' which was intended to be marketed to visiting Barbadians (now living abroad) and their families who visited in the summer season usually to participate in Crop Over. In preparation for the tour's general roll out, several tour guides were professionally trained to World Tour Guiding Federation (WTGF) standards.

During the nascent delivery of the first pilot tours, largely to Barbadians in the first instance, both the Ministry of Tourism and the BMHS were struck by the success of the tours, and the appetite of Barbadians wishing to explore more of their own history (Inniss and Joliffe 2012). Unfortunately, due to budgetary constraints and logistical challenges, the 'Freedom Footprints' tour was never developed beyond its pilot phase, but some of the aspects of the tour, including the signage, has been incorporated into the development of several other tours by tour operators across the island. When the ADHT Conference was held in Barbados in 2012, components of the 'Freedom Footprints' Tour were delivered in the tour developed for delegates.

However, from a heritage conservation perspective the development of Barbados Slave Route project hinges on the research, documentation and protection of all sites associated with the slave trade, slavery and emancipation in the island, and does not just focus on interpretation and the delivery of tours. It is on this score that the Barbados Slave Route is the most vulnerable as neglect of tangible (built and archaeological) heritage and the erosion of the intangible heritage values linked to it, creating what is known as a 'site of memory' has often resulted in the removal of the cultural heritage of enslavement from the landscape. Without adequate research and documentation and legislative protections more valuable heritage resources will be lost to neglect and destruction.

At a 2017 event for the official handover of the Synagogue Redevelopment Project to the Bridgetown Synagogue 1654 Management Company, the Minister of Culture, Sports and Youth Stephen Lashley, briefly discussed the potential of sites associated with the synagogue's restoration, such as the Codd's House monument as being an important site of memory in the emancipation story of Barbados' majority African-descended population. He said that the site, and sites like it, should be protected as a part of the country's 'freedom corridor'. Ironically, due to Government's demolition of the original Codd's House building, which last housed the Barbados Water Authority (BWA) in 1985, the site had to be re-marked during the redevelopment of the area with an attractive, but 'unoriginal' pavilion that provides some symbolic testimony to the building that once stood there. Juxtaposed with the 30-year project to restore and redevelopment one of the oldest synagogues in the Western Hemisphere resulting in what has been a tremendous commitment to the protection of the island's Jewish and religious heritage, the marking of the country's important freedom stories also signifies the country's dismal record of 'heritage lost'. Footsteps away from the project are other sites of memory associated with the slave trade and slavery, including the former site of the Royal African Company's Barbados headquarters in White's Alley and the now destroyed site of National Hero the Right Excellent Sarah Ann Gill's house (Gill was a notable early nineteenth century Methodist emancipator) on the property of the James Street Methodist Church. Lost to either the ravages of time or even more sadly, the lack of protection for sites of memory, decay and neglect continually threaten the so-called 'freedom corridor' making up part of the island's Slave Route (see Scher 2013).

Although there has been a renewed interest in visiting these sites of memory on the island over the past 10 years, there has been limited and un-sustained effort to document them and place into an inventory of Slave Route heritage sites for interpretation and visitation purposes. Frustrated with the lack of documentation of Slave Route sites of memory across the Caribbean, researchers have been compiling a comprehensive Guide to Slave Route Sites of Memory in the Caribbean (Inniss and Cummins forthcoming). This project is part of an effort to ensure that the slave trade and slavery in the Caribbean assume their rightful place in the global heritage of humanity. It aims to demonstrate the often uncovered relationship of relationship of sites, usually valued on account of their architectural, artistic and aesthetic values, to slavery and the slave trade. The project will provide access to documentation and education resources for heritage practitioners, tourism planners and educators wishing to learn more about how the trans-Atlantic slave trade and slavery shaped Caribbean landscapes and seascapes. Practitioners and educators will be better placed to advocate for the protection and interpretation of this heritage to promote cultural identity and diversity in Caribbean states. The volume has amassed research on almost forty sites in Barbados inclusive of images and site descriptions.

### **Mapping the Barbados Slave Route: Newton Slave Burial Ground**

One of the sites of memory that features prominently in the Barbados Slave Route is Newton Slave Burial Ground, an archaeological site, located at Newton Plantation (now an industrial estate) in Christ Church. The BMHS now owns and manages the

property, receiving groups of visitors from time to time at the site usually on bus tours. It was one of the sites included in the 'Freedom Footprints' tour and is thus, signposted as part of the Barbados Slave Route. Newton plantation is one of the best-documented plantations in Barbados. Several prominent researches, including Jerome Handler, Hilary Beckles and Karl Watson have used the records to reconstruct the lives of enslaved Africans who lived and worked on the plantation (Beckles 1989; Handler and Lange 1999; Watson 2000). The records provide key insights into several little-known aspects of African life in Barbados during the slave period. When the archaeological site of the plantation's burial grounds was excavated in the 1970s, other aspects of the lives of Africans at Newton were revealed including burial practices, health and nutrition and their material culture (Corruccini *et al.* 1989; Handler *et al.* 1986; Handler and Corruccini 1986; Jacobi *et al.* 1992).

Today, the Newton burial site is one of the only extant excavated communal burial grounds for enslaved Africans in a sugar plantation context in the region. The site's accessibility and interpretative value are significant assets for the development of the Barbados Slave Route. The site has also been specially designated for its potential as a UNESCO World Heritage site and is currently on Barbados' Tentative List nomination for 'The Industrial Heritage of Barbados: The Story of Sugar and Rum'. Although there are several tourism attractions that speak to the experience of enslavement on the island, there are very few monuments or other sites that can viscerally reflect what it was like to live and die as an enslaved person on a plantation. Just as the churchyards of Historic Bridgetown command a certain reverence and quiet contemplation of lives passed, Newton Slave Burial Ground demands the same attention, even though it is just rolling pasture in a relict sugar landscape. The value of this site for both local and foreign visitors is testimony to the role Barbados can play in bringing attention to the trans-Atlantic slave trade and slavery. Moreover, the narratives collected from the Newton records also reveal the importance of resistance and freedom among the enslaved population at Newton. These are all valuable stories that need to be transmitted to future generations.

After the feedback from the ADHT Conference held in September 2012, in which visitors used the site for an impromptu libation ceremony honoring the ancestors, the BMHS has been working to develop the site sensitively as a place of quiet reflection and learning for visitors. During Department of History and Philosophy tours of the site, students, especially Barbadians, are so moved that they regularly acknowledge that they knew nothing of its existence prior to going on the tour. They often inquire when the site will be made available for the reception of visitors, as it is not currently in a state that demonstrates its value to Barbadians. The only road access to the site is through an industrial estate and it is not currently signposted for visitors other than a single sign located on site.

Barbadians and visitors desire access to open spaces so they can contemplate and reflect on the past. Newton Burial Ground provides a legacy for all of humanity to remember the nearly forgotten history of African enslavement. Furthermore, recreation space is at a premium in Barbados because of its plantation history whereupon almost the entire island was used for sugar cultivation (Downes 2002). Open spaces must be literally carved out of their plantation past after Barbadians have spent generations being alienated from it. The establishment of a so-called 'freedom corridor' must first

begin with policy that acknowledges that Barbadians are custodians of this legacy and they must be in constant remembrance of how our ancestors shaped the landscape without being equal partners in its ownership.

The documentation of Barbados' Slave Route is only one step in reclaiming the heritage of enslavement and emancipation on Barbados' landscape. The recovery of narratives that provide us with insight into the various activities from enslaved persons defending their freedom to building the wealth and prosperity of their enslavers has been a critical step in seeking to arrest the loss of the island's slavery heritage to similar threats as identified previously. But it will take much more than an inventory of sites to provide interpretative value for the visitor, and especially for local Barbadians. The scale of investment needed to enhance, protect and interpret these sites starts with definitive policy through legislation such as the enactment of antiquities legislation and a well-defined policy for the conservation of listed buildings and sites.

Arguably, the entire island, and by extension, the region could and maybe should be marked as a site of memory for the holocaust of over 12 million enslaved Africans who were brought to the New World to work as chattel in a system that attempted to extinguish their culture and humanity. That is how monumental this memorial should be, but it is not likely to be supported as such given such little investment has already been set aside for it. We can, however, do our best to highlight these stories as they remain part of our landscape and create spaces for interpretation, education and reflection for Barbadians and visitors.

### **The Barbados Trailway Project**

A consortium of private interests has developed the Barbados Trailway Project proposal, which seeks to convert Barbados' old train line into a multi-use heritage trail. Rail to Trail Networks have been popular forms of adaptive reuse throughout North America and the United Kingdom where disused rail lines or railway reserves are adapted for use as bicycle or walking trails. Promoting healthy lifestyles as well as nature/heritage conservancy, rail lines and/or rail reserves are ideal pathways for walkers, runners and cyclists. They often offer well-defined paths with the appropriate gradient for comfortable access by pedestrians and cyclists. Given the popularity of the Richard Haynes Boardwalk on the South Coast as a recreational space for pedestrians and runners, this project would convert the old Barbados Railway reserve in two phase from (1) Bulkeley Sugar Factory, St. George to Consett Bay, St. John and (2) from Carrington Sugar Factory to Sam Lord's Castle, St. Philip into an accessible multi-use heritage trail for cyclists, pedestrians and runners.

Water, shelter and rest-stops/picnic areas would be established along the route, and historical interpretative signage would be posted along the railway trail and particularly at the old railway stations (Bridgetown; Rouen; Constant; Bulkeley; Windsor; Carrington; Sunbury; Bushy Park; The Crane; Three Houses; The Crane; Bath; Bathsheba; Atlantis and Belleplaine). Interpretative signage will be used to highlight elements of the island's heritage including: Amerindian settlement (Three Houses archaeological site); industrial sugar production; slave trade and slavery; technological innovation; transport history; rural settlement patterns and village development; natural and environmental features.

Although receiving Town and Country Planning Permission in 2015, the project has been delayed by the lack of funding in the current fiscal climate. Nonetheless, the project has been met with support from several governmental and non-governmental sectors. The project's objectives cut across several policy programs and fits squarely within the Government's stated policies for sustainable development, including the Green Economy and sustainable tourism, while also promoting health and wellness. The project has been included in both the Tourism Master Plan for Barbados and the Barbados Physical Development Plan (PDP).

### **The historical background of the Barbados Railway**

When Britain was experiencing the technological and infrastructural development of railways in the nineteenth century, its premier Caribbean colony, Barbados, also discussed the construction of a railway in the island. As early as 1845, speculators were costing the project. However, it was not until 1873 that such a scheme was considered seriously and by 1881 the railway line connecting Bridgetown to Carrington was officially opened (with an extension to Belleplaine in 1883). After almost 60 years of disrupted service due to financing, repair and ongoing construction, the railway was closed leaving behind a remarkable heritage of technological and infrastructural innovation in the island.

In 1934, passenger traffic using the railway ceased and in 1937 all traffic, including freighting ceased. In the same year, a Disposal Board was established to sell the Railway's assets and in 1938, contractors began to remove the track, and all of the other equipment was sold locally (Horsford 2001). The only visible reminder of the railway is the earthworks of the track-bed that remain Crown-controlled property and a few tangible landmarks along the East Coast where the abutments and some corroded railway ironworks remain. Since its closure in the late 1930s, the train line has been adapted for re-use for several low-impact functions: roadway; footpath; watercourse; driveway; utilities conduit and cart-road.

The Barbados Railway continues to fascinate both visitors and locals alike with several publications and references in local lore (Foster 2009). The Atlantis Hotel on Barbados' east coast in Tent Bay, for example, has paid homage to its historic railway connections and other places recognize their association with the railway (for example, the National Conservation Commission Bathsheba Facility and place names in Bridgetown, St. George and St. Philip; Marshall 2016). Currently, the trail is used at least once a year, in February, in the Barbados National Trust's annual Colin Hudson Great Train Hike. It is under-utilized, particularly for its tourism and recreational value.

### **The Barbados Trailway Project and Sustainable Tourism**

Like the Barbados Slave Route, the Barbados Trailway Project leverages Barbados' heritage resources, including archaeological sites, industrial heritage and sites of memory for the slave trade and slavery, for the development of a sustainable heritage tourism product. Several benefits have been identified for the project, which have been similarly outlined for rail to trail projects in North America and Europe, potentially placing

Barbados on the cutting edge of recreational development for tourism purposes. One economic study of rail to trail development in the US makes the connection:

*'Part of sustainable tourism's philosophy is to use tourism as a tool for regional and rural development, and for the conservation of human and natural heritage. It also proposes to cut the fuel burn involved in the tourism transaction by encouraging walking, cycling, rail and other fuel sparing holiday modes'* (Lane 1999).

Since this is a new tourism product developing part of Barbados' industrial heritage for recreational use, quite a bit of research was invested in the project to convince tourism and land use planners about the project's efficacy and its positive impacts on Barbados' tourism, which is the island's main economic earner. Given the island's relatively high population and traffic densities, a dedicated cycle route/ multi-use trail along an existing transport reserve could be a boon to the diversification of Barbados' tourism product. Cycle tourists, in particular, seek, casual, healthy, recreational activities, of which, cycling and walking are the two most accessible forms. However, perceived fear of traffic is a major deterrent to recreational cycling. This barrier has been overcome where destinations have provided trails and networks, which are traffic free or traffic calmed. Monitoring exercises record high levels of use, which supports the argument that there is latent demand. In Les Lumsdon's exploration of cycle tourism as a model for sustainable development (2000), he outlines various principles of sustainable development, which map well with the features of the Barbados Trailway Project (see Table 19.1).

A sustainable development approach has been taken with the project, which will accrue benefits for both locals and visitors, particularly those residing in rural communities with no direct access to the tourism market. The 'greening' potential of the project with low-impact civil works, landscaping and use of sustainable energy and products will also promote environmental sustainability in the island. It is a sustainable community-driven recreation/ tourism product developed within the framework of the 'Green Economy' (University of the West Indies and the Government of Barbados, 2012). Moreover, Barbados has been actively seeking to diversify its tourism product to attract new and repeat visitors. In a competitive tourism environment, prospective visitors seek value and meaningful experiences during their visit. The project will create a new heritage attraction that will benefit both locals and visitors by offering a safe and accessible green space and heritage trail while promoting physical activity and wellness. It is also envisaged that this trail will help to develop sports tourism with the promotion of national, regional and international sports events such as marathons and races; walking tours; as well as cycling races.

Other railway tourism projects in the region, including the Scenic Railway in St. Kitts and Nevis, have sought to restore the traditional use of the railway for scenic tours in adapted railway cars. Since the sale of the original cars and the removal of the railway sleepers and rails from the route over time, as well as the loss of a significant portion of the route on the east coast due to erosion, a similar project in Barbados using the exact route would not be feasible. St Nicholas Abbey (St Peter) has developed a railway attraction with the recent opening of its heritage railway in 2018 on plantation lands, but it does not correspond to the original route of the Barbados railway. It should be noted also that the St. Kitts and Nevis Scenic Railway is also only operational during



<b>Principle of sustainable development</b>	<b>Barbados Trailway</b>
Re-used of existing resources	Re-uses railway reserve and existing tourism and conservation infrastructure
Reduction of consumption, of waste and finite resources	Reduction of energy intensive car trips; cycle trips replace car outings or reduce distance travelled; potential for intermodality with public transport and future cycle networks
Maximizing local economic impacts	Cycle tourists spend locally and use local tour companies
Minimizing local community impacts	Project will help support local property owners and entrepreneurs using a reserve that is controlled for local/visitor use
Promotion of diversity	Natural and cultural heritage attraction that will interpret and provide public education about conservation, sustainability and history
Monitoring and management	Government-led initiative vested in an appropriate management authority for technical monitoring for example surveys, community feedback and maintenance

*Table 19.1. Principles of sustainable development and the Barbados Trailway (Adapted from Lumsdon 2000: 361-377).*

the peak winter season. A similar railway reconstruction project has also been undertaken in Cuba. The only other similar rail to trail project that could be identified is the mountain biking trail in Bermuda, which uses an unpaved path along the route of their disused trainline. There is a paved bike trail in the US Virgin Islands, but it is not along a historic railway route. The Barbados Trailway would provide year-round recreational access for both visitors and locals with minimal cost while considerably expanding much needed public green space in the island, and creating a significant public amenity. Adequate shelter facilities with picnic areas (including picnic benches, bench seating and garbage bins) and landscaping will be located along the route with likely placement at historic train stops.

The preservation of the cultural and natural heritage of the rail-trail system also complements other initiatives to promote the island's unique heritage and to provide accessible green spaces for recreational activities. Moreover, the potential to provide a rural-urban gateway to the recently inscribed UNESCO World Heritage (WH) property Historic Bridgetown and its Garrison via a natural corridor connecting the East and West coasts will help to highlight the cultural values of other tentative WH sites, including The Industrial Heritage of Barbados: The Story of Sugar and Rum and The Scotland District of Barbados. The project also allows for the creation of a sustainable tourism attraction for both locals and visitors to enjoy. It can be utilized to attract our growing Sports Tourism and Wellness Market, while also providing opportunities for young entrepreneurs to utilize the trail a means to develop products and services such as bicycle rentals and vending. The project will thus provide economic opportunities in rural areas for vendors; guides; cycle tour operators; bike rental facilities and other concessions. For example, Consett Bay could realize an increase in visitors looking to purchase snacks and beverages or buy souvenirs while waiting to return bicycles or awaiting collection by their tour bus, creating concession opportunities for local entrepreneurs. The project would also promote the adaptive re-use of disused sugar industry infrastructure by re-purposing Bulkeley and Carrington Factories as trailheads and converting some of the disused outbuildings into infrastructure to support concessions.

Overseas, access to recreational trails has been seen to increase property values in communities and developments located near trails. Existing communities and future residential developments, such as proposed at Bushy Park and Vineyard will also benefit from the nearby public amenity by providing direct access to an 'inland boardwalk' for local communities. Existing and new Tourism Property Developments will also benefit from their proximity to the trail (such as Sam Lord's Castle, the Crane Hotel and Atlantis Hotel).

## **Heritage and Health**

The provision of recreational space in Barbados is often costly due to land acquisition and the rural districts are often neglected in development planning for this purpose. This project seeks to provide access to all Barbadians regardless of age, gender or physical ability (including persons with disabilities) using existing Crown-controlled land. After several fatal cycling and pedestrian accidents along the island's main roads/ highways, the Barbados Trailway would be a safe and welcome alternative that would provide year-round enjoyment for runners, walkers and cyclists of varying skill levels. With the increase in the incidence of Chronic Non-Communicable Diseases (CNCDS) amongst Barbadians, this project will provide Barbadians and visitors with opportunities to walk, run and cycle to improve their cardio-vascular health and promote overall health and well-being.

A 2015 Health of the Nation Report suggests that Barbadian men and women are facing a terrible epidemic of CNCDS, including diabetes (1 out of 5 Barbadians is diabetic), hypertension (1 out of 3 Barbadians is hypertensive) and obesity (2 out of 3 Barbadians are overweight). Increased physical activity can reduce the risk of several diseases including, type-II diabetes, hypertension, stroke, Alzheimer's disease, and breast and colon cancer. Physical activity rates among Barbadian men and women are abysmally low. Only 40 percent of men report their engagement in moderate-intense physical activity, while only 10 percent of women report the same. Interestingly, walking was reported as the number one physical activity among both men and women (University of the West Indies Chronic Disease Research Center and Ministry of Health, 2015). The US-based Center for Disease Control has developed a Guide to Increase Physical Activity in the Community, which public health planners in Barbados have been using to review how the built environment could be enhanced to promote community-based physical activity. The Barbados Trailway, with its emphasis on cycling and walking fits neatly within the strategies suggested in the guide to increase physical activity.

An innovative project, the Barbados Trailway cuts across several key areas for the promotion of Barbados' sustainable development whether it is agriculture, transport, tourism or health and wellness. Like most heritage projects in the island, the major obstacle is funding. However, it is hoped that with the new incentives offered through the Cultural Industries Development Act (2015) that more benefactors will be forthcoming with their support for the development of the island's cultural heritage.

## **Conclusion**

The Barbados Slave Route and the Barbados Trailway Project are two examples of how trails development in Barbados can stimulate local appreciation for the island's heritage

while also providing access to open spaces for recreational purposes. There is potential for the development of other trails in Barbados on a variety of themes, including trails that highlight the island's natural heritage. However, sites will only retain visitors' interests if there is something to see and do. Trail development will be hampered if heritage buildings and sites are not protected by and enforced with legislation. Policy makers and planners should be taking advantage of renewed popular interest in the island's history and heritage with the commitment of resources for the development of heritage trails.

## References

- Barrow, C.  
1983. Ownership and control of resources in Barbados: 1834 to the present. *Social and Economic Studies* 32: 83-120.
- Beckles, H.  
1989. *Natural Rebels: A Social History of Enslaved Black Women in Barbados*. Zed Books, London.
- Corruccini, R., E. Brandon and J. Handler.  
1989. Inferring fertility from relative mortality in historically controlled cemetery remains from Barbados. *American Antiquity* 54: 609-614.
- Downes, A.  
2002. The contestation for recreational spaces in Barbados, 1880-1910. In *In the Shadow of the Plantation: Caribbean History and Legacy* edited by A. Thompson, pp. 376-390. Ian Randle, Kingston.
- Foster, P.  
2009. *Shake, Rattle and Roll: The Story of the Barbados Railway, 1846-1937*. Pangraphix Publishers, Barbados.
- Handler, J., A. Aufderheide, R. Corriccini and E. Brandon.  
1986. Lead contact and poisoning in Barbados slaves: historical, chemical, and biological evidence. *Social Science History* 10: 399-425.
- Handler, J. and R. Corruccini.  
1986. Weaning among West Indian slaves: historical and bioanthropological evidence from Barbados. *William and Mary Quarterly* 43: 111-117.
- Handler, J. and F. Lange.  
1978. *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. Harvard University Press, Cambridge.  
1999. *Plantation Slavery in Barbados: An Archaeological and Historical Investigation*. IUniverse.com, Inc. Lincoln, Nebraska.
- Horsford, J.  
2001. *The Barbados Railway*. Maritime and Mainline, Alton.
- Inniss, T. and A. Cummins (editors).  
Forthcoming. *Slave Routes of the Caribbean*.

- Inniss, T. and L. Jolliffe.  
 2012. The Industrial heritage of sugar at World Heritage Sites in the Caribbean. In *Sugar Heritage and Tourism in Transition*, edited by L. Jolliffe, pp. 89-109. Channel View, Bristol.
- Jacobi, K., D. Cook, R. Corruccini and J. Handler.  
 1992. Congenital syphilis in the past: slaves at Newton Plantation, Barbados, West Indies. *American Journal of Physical Anthropology* 89: 145-158.
- Lane, B.  
 1999. Trails and tourism: the missing link', Bristol: National Trails Training Partnership, available online at <http://www.americantrails.org/resources/economics/TourismUKecon.html> (accessed 29/9/17).
- Lumsdon, L.  
 2000. Transport and tourism: cycle tourism-a model for sustainable development? *Journal of Sustainable Tourism* 8/5: 361-37.
- Marshall, W.  
 2016. *Of Halls, Hills and Holes: Place Names of Barbados*. Barbados Museum and Historical Society, Bridgetown.
- Scher, P.  
 2013. Uneasy heritage: ambivalence and ambiguity in Caribbean heritage practices. In *Heritage Regimes and the State*, edited by R. Bendix, A. Eggert and A. Peselmann, pp. 79-96. Gottingen University Press, Gottingen.
- University of the West Indies and the Government of Barbados.  
 2012. *Green Economy: Scoping Study Synthesis Report*. Barbados Government, Bridgetown.
- University of the West Indies Chronic Disease Research Center and Ministry of Health.  
 2015. *Health of the Nation: Core Findings*. Barbados Government, Bridgetown.
- Watson, K.  
 2000. *A Kind of Right to Be Idle: Old Doll Matriarch of Newton Plantation*. Department of History, Cave Hill Campus, University of the West Indies and the Barbados Museum and Historical Society, Bridgetown.

# Where are the Shipwrecks? Recent Directions in Maritime Archaeology and Heritage in Barbados

*Niall Finneran*

## **Abstract**

Maritime heritage in the Caribbean tends to be focused upon shipwreck exploration, although the wider concept of maritime archaeology can be applied to the study of landward installations such as ports and shipyards, intertidal archaeology, nautical archaeology (the archaeology of boats), archaeology of food procurement strategies (fishing; whaling; saltings) as well as intangible heritage associated with folk belief pertaining to the sea. This contribution addresses the issue of the lack of shipwreck archaeology in Barbados and seeks to frame a narrative for maritime heritage and its management on the island seen within a wider Caribbean context.

**Keywords:** *maritime heritage, maritime archaeology, underwater archaeology, nautical archaeology.*

## **Introduction**

Popular conceptions of Caribbean maritime archaeology tend to focus (in personal experience, at least) upon underwater archaeology generally, and Spanish treasure ships specifically (Bass 1985). The recent discovery, for example, of the San Jose off the coast of Colombia represents a prime example of this genre (Drye 2015). In the public mind-set, perhaps influenced by the Pirates of the Caribbean film series (and the attendant perception of the Caribbean as some lawless frontier zone filled with desperadoes; Mackie 2005; Sullivan 2002), the Caribbean is seen first and foremost a graveyard of galleons, each with lurid back-stories, holds full of cannon and loot to be plundered. The wreck paradigm dominates the field of study.

This contribution aims to demonstrate just how narrow this conception is, for arguably Barbados has seen little focused underwater archaeological research in comparison with other Caribbean islands, such as the Caymans to name just one example (Smith 2000). Maritime archaeology is more than underwater archaeology. Underwater archaeology, as the names suggests, is archaeology conducted beneath the sea and with similar recording, survey and excavation techniques as land-based archaeology, although considerably modified and in many cases is a more expensive and time-consuming practice. Nautical archaeology focuses primarily upon the analysis of the ship as an artifact. Maritime archaeology also encompasses the development of specific forms of heritage management and policy as well (Leshikar-Denton 2002). It is a diverse field of study and one that can inform greatly our understanding of human socio-economic and cultural development over the millennia (Bass 2013). In the Caribbean, a region dominated by sea and islands, the discipline acquires further significance.

This chapter will shift the analysis from the emphasis upon the underwater artifact, and the problematics of treasure and plunder (and it is worth reminding ourselves that until recently this was not a problem outside the remit of so-called academic and professional archaeology and heritage structures, Johnson 1993) to a more nuanced approach to understanding the archaeology of human interaction with the sea and its resources on the island of Barbados over the long-term. This would certainly demand an analysis of the underwater shipwreck as an archaeological site with its own problems of investigation, protection and management if such sites had actually been investigated in Barbados, but without this category of evidence other related themes need to be explored.

These themes would include maritime history, ethnography, shipbuilding, harbors, ports, fishing (and, as we shall see on Barbados this includes whaling) and also intangible heritage related to human perception of the sea around Barbados. After considering the broad geographical and ecological context of the study, we look at the wider framework of maritime archaeological study and maritime heritage policy in the Caribbean, consider recent research foci on Barbadian maritime archaeology and heritage (broadly constructed) and finally look at potential research directions for the future. Before we tackle this, a brief geographical context of the historic relationship between land and sea in Barbados is required.

### **Barbados land and sea**

It would be an obvious and perhaps glaring statement to suggest that as an island the sea has been an important historical factor in human settlement on Barbados, as elsewhere in the Caribbean (Watters 1998). Human-sea interaction is an important feature in human cultural history. On an island such as Barbados, the sea provides important economic resources, such as fish (Welch 2005) or indeed whales (Finneran 2016a). It has historically provided a means, in the days before aircraft, of travel within and beyond the immediate region. In more recent years, after the collapse of the industrial sugar economy, Barbados has become first and foremost a leisure tourist destination, its fortunes tied to sea, sun and sand (Schuhmann *et al.* 2016).

The sea, however, has more than a material, tangible meaning to the inhabitants of Barbados. The sea is the back drop to people's lives; it accretes meanings, myths and symbols (Finneran 2016b). The seashore, for example, is the liminal meeting point of land and sea; here is the stage of human socialization, learning and interaction (Stoffle and Stoffle 2007). In Barbados, as in many maritime communities worldwide, there are a whole set of unspoken and intangible meanings wrapped up in the seascape (McNiven 2003). This more numinous – and therefore hermeneutic – approach is also an important component of current maritime archaeological praxis (cf. Ransley 2013).

The total coastline of Barbados measures overall a little under 100 kilometers (60 miles); in comparison, the values for its near neighbors are: 362 kilometers (224 miles) for Trinidad and Tobago taken together, and for St Lucia 158 kilometers (98 miles) (CIA 2015; Figure 20.1; also, De Waal this volume chapter one). It is not a highly indented coastline. Barbados is effectively a tear-dropped-shaped island; the windward east coast, more rugged in character and with no natural anchorage, faces the Atlantic swells and north-easterly trade winds. The west faces the Caribbean, and the waters are much calmer on this leeward coast. Much of the littoral from the south coast to as far as Half Moon in St Peters is flat, and it is only towards the north-western corner that cliffs begin to rise. Most of the southern coast is calm from Bridgetown to Oistins, but eastwards after South Point and Chancery Lane, a more Atlantic regime predominates towards Long Bay and Kitridge Point/the Crane.

The predominant ocean current regime is from east to west, *i.e.* from the Atlantic to the Caribbean and the tidal range is only c. 1 meter (3 feet); taken with wind direction (*i.e.* mainly from the north-east except during the hurricane season of July–November), this has implications for the handling of traditional sailing watercraft in these waters



Figure 20.1. The seascape of Barbados.

(Randall 1970). There are no safe anchorages on the east coast, and being caught on this shore mean certain danger given the prevailing winds. Sailing towards the main Windward group of islands allowed for an easy run or beam reach; the return journey, beating against wind and current, would have been far more difficult (this may have been one factor in explaining why Barbados was never successfully attacked by a naval force from the west; see National Geospatial Intelligence Agency 2004: 139-158).

Geologically speaking, Barbados is a Pleistocene carbonate sedimentary island derived from reefs ('coral cap'), contrasting with the volcanic islands of the southern Windwards such as Grenada, St Vincent and St Lucia (Humphrey 2004). Coral (fringing) reefs extend from the western, leeward coast of the island as far as c. 300 meters (328 yards) from the shore. In the early twentieth century the predominant form of coral on these reefs was *Acropora palmate*; this was gradually replaced by *Porites porites*, and then after Hurricane Allen in 1980 by *Agarica agaricites* (Lewis 1984). Coral has historically been utilized as a building material and also for making artifacts. A discontinuous barrier reef is found off the south coast, and off the west coast separated by a stretch of inshore water ('lagoon').

These basic geomorphological coastal factors have implications for human-sea interaction. From the perspective of tourism and leisure use, the calmer west coast is favored for water sports and recreational diving. Artificial wreck diving sites include the Pamir off Speightstown, and the Lord Combermere and Carlisle Bay wrecks of Bridgetown, but these cannot be described as archaeological sites in the strictest sense. Recreational divers have reported historical artifacts on the sea bed within Carlisle Bay, but this area clearly requires proper archaeological survey (Boyd 2015). Large marina complexes at Heywoods/Port St Charles and Port Ferdinand have created artificial harbors (and as we have seen elsewhere, at some cost to the coastal archaeological heritage).

Here along the west coast are still found traditional fishing and boat building centers: Six Men's and Speightstown in St Peters; Paynes Bay in St James and Bridgetown, with its historic port and carenage. Eastwards, on the south coast, Oistins remains an important fishing and boatbuilding center. The famous Friday night Fish Fry here evidences the on-going importance of fishing as a social and economic activity in Barbados. These coastal zones have important historical resonance and have a significant time depth for human occupation; Peter Drewett's excavations at the site of Port St Charles in St Peter suggest evidence for marine resource exploitation as early as 2000 BC (Drewett 1993). On an island this would make sense.

In addition, numerous small rivers and streams drain from the hinterland towards the sea, and these features also provide foci for human settlement. At Speightstown a salt pond fed by a rivulet marks the change in regime between riverine and maritime waters. Here recent survey work by the author has identified Suazoid pottery fragments round the edges of this feature, confirming, as Drewett's survey work has demonstrated, the affinity of pre-contact sites with coastal locations and river valleys (Drewett and Oliver 1997: figure 7; 45). Holetown is built around a similar feature, 'the Hole'. At Bridgetown, the Constitution River is culverted and channeled in its lower reaches to form the carenage, an area that formed the historic waterfront of the town and contributed greatly to the development of intra and inter-regional maritime trade in the historic period (Gragg 1991). For this is where Pere Labat, visiting in 1700, could exclaim that '*the largest trade in the New World is carried on here*' (Connell 1957). Now



in quieter times pleasure craft berth here, but historically this is where ships could be taken out of the water and rolled over to expose the base of their hulls for repair or maintenance, a process known as careening.

There are fewer streams on the east coast (for example, Bruce Vale River, Joes River and Long Pond River), and these are mainly found in the north-east (Humphrey 2004). At Green Pond and Long Pond in St Andrew, however, are found the remains of a coastal wetland. On the south coast similar (although not as extensive) swamplands are found at Chancery Lane and Graeme Hall. The latter is now a managed nature sanctuary and one of the last remaining mangrove swamps containing both red and white mangrove. These wetland landscapes, a liminal point between land and sea, would have offered their own scope for economic exploitation, as is evidenced at the Saladoid site at Chancery Lane on the south coast (Drewett and Oliver 1997). During the colonial period settlers used these swamps as fowling grounds, seeking to recreate the sporting landscapes of England. These are fragile ecozones with important natural as well as cultural heritage significance (Bacon 1987; Charlemagne *et al.* 2006; De Waal this volume, chapter one; Parker and Oxenford nd). Wetland archaeology is not often thought to be a discipline applicable to the Caribbean but maybe it should become a focus for the twenty-first century.

### **Maritime archaeology and heritage: some Caribbean research trajectories**

Two recent publications (Luna-Erreguerena and Leshikar-Denton 2008; Leshikar-Denton 2011) have broadly highlighted recent developments and research directions in underwater and maritime/nautical archaeology in the Caribbean. Firstly, within the realms of wider policy frameworks, it is important to note that Barbados ratified the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage in October 2009 and the Convention came into force in January 2009. The Convention greatly amplifies themes laid out in articles 149 and 303 of the United Nations Convention on the Law of the Sea (UNCLOS). In broad terms the Convention identifies four key principles: (1) the obligation of states parties to preserve underwater cultural heritage 'according to their capabilities'; (2) it identifies *in situ* preservation as being the first option (again a pragmatic rather than idealistic statement); (3) the underwater heritage should not be commercially exploited and (4) the promotion of training, good practice and public awareness (UNESCO 2016).

International policy can only be effective, however, when integrated with local heritage legislation. Barbados, as with a number of other Caribbean states, is seeking to develop an antiquities bill to frame a policy on heritage management (Inniss this volume) and this would also encompass underwater heritage. The Coastal Zone Management Unit is seeking to work alongside the Barbados Museum to help develop effective wreck protection as well (Leshikar-Denton 2011). In addition, extending existing historic wreck legislation is another means of protection (Leshikar-Denton 2006). To use the Cayman Islands as an example, shipwrecks abandoned on the sea bed for over fifty years are claimed by the Government under the terms of the *Abandoned Wrecks Act* (1966; 1997). This legal framework however was designed to ensure that the Government received a cut from any salvage work undertaken on the wrecks (as op-

posed to having a purely heritage protection angle such as the English 1973 *Protection of Wrecks Act*; note that war graves come under a separate remit). The Cayman Islands Government is now re-working this law to reflect recent UNESCO policy.

Away from the area of heritage management, maritime archaeology in the Caribbean focuses upon a diverse range of sites and subject material. Maritime studies have an important role to play in modeling pre-Columbian dispersal patterns through the region (Callaghan 1992), and Scott Fitzpatrick's recent overview (2013) showcase new approaches to the ship building and ship handling capabilities of the pre-Columbian peoples of the Caribbean. In the colonial period, we begin to see greater possibilities for shipwreck study. The *Trouvadore*, for example, was an illicit slave trader wrecked off the Turks and Caicos islands in 1841 and its archaeological investigation has proved to have important resonance to the present population of those islands (Sadler 2008). Investigation of port installations, such as the famous example of the submerged Port Royal Jamaica, evidence the wide scope of Caribbean maritime archaeology (Hamilton 2006), as do the study of pathologies of early nineteenth century Royal Navy sailors in Antigua (Swanston *et al.* 2015) and the ethnoarchaeology of traditional water craft, such as the 'Lighters' of Nevis (Meniketti 2012, a subject to which we return later).

### **Maritime archaeology in Barbados: an overview**

The primacy of maritime economic resources such as fish and shellfish in pre-Columbian contexts on the island, along with the use of wells to manage fresh water sources on coastal sites is discussed at length elsewhere in this collection (De Waal chapter 1 this volume) and this material does not need to be repeated here. Suffice it so say though that the picture of pre-Columbian maritime resource exploitation mirrors wider trends in the greater Caribbean region as a whole (Fitzpatrick *et al.* 2008). The location of pre-Columbian sites along the coastlines and long river valleys is a phenomenon noted, as mentioned above, by Drewett in his survey, and this patterning of coastal exploitation is not likely to be the result of survey bias.

In addition, the nautical archaeology of these settlers is also poorly understood; as Barbados was uninhabited at the time of first European contact we have no first-hand ethnographic accounts of indigenous water craft. In any case, such early artifacts are rarely found in Caribbean contexts, as Fitzpatrick (2013: 109 notes); the dugout canoes from Los Buchillones in Cuba and the blue hole on San Andros Island, Bahamas, are derived from waterlogged contexts. Such preservation is unlikely in Barbados. The sewn log canoe on display at the Bequia Boat Museum represents the closest find of a pre-Columbian water craft to Barbados, but the context of its discovery and its date remains unclear. In summary, a maritime archaeology of the pre-Columbian period on Barbados is evidenced in the main by economic resources drawn from coastal sites such as Heywoods, Silver Sands, Chancery Lane and Hillcrest, and little else.

From the colonial period we can begin to talk about a more diverse picture of the archaeology of maritime Barbados. Let us start with the very obvious artifact: the shipwreck. In comparison with other Caribbean islands, historic shipwrecks have not been investigated in the waters around Barbados. This does not mean that historic shipwrecks are absent from these waters, merely that they have not been fully identified. One of the most exhaustive lists of shipwreck sites (and one with a somewhat

sensationalist title too; Sandz and Marx 2001: 154-156) records a number of historic shipwrecks in the waters off Barbados, ranging from traders to warships to slavers. It is important to realize though that these entries do not actually record shipwreck sites but cite historical records (such as contemporary newspaper accounts or Lloyds of London listings) and as such record historical events rather than archaeological sites themselves. It is perhaps pertinent to note here in this connection, that in common with contemporary maritime cultures in England, the figure of the wrecker, pirate or smuggler, a generic anti-establishment individual, was becoming common currency. In Barbados, the profile of Sam Lord fits into this continuum and his deeds very much form part of the narrative of Barbadian maritime history.

Nautical archaeology is more than about shipwrecks, as a discipline it looks broadly at the archaeology of boats in general. Maritime ethnography plays an important role in this practice. In the late 1960s an American teacher by the name of Douglas Pyle sailed through the Caribbean studying the building techniques of some of the last traditional wooden boat builders of the Caribbean (Pyle 1988). The present author has made the point elsewhere (Finneran 2016a) that without realizing it Pyle was in fact undertaking a very valuable exercise in maritime ethnography. His detailed study of working techniques, use of materials and design of inshore craft as well as larger vessels (sloops or schooners) used for longer-distance inter-island trade has proven to be a wonderful resource for nautical archaeologists. His line drawings and photographs in particular being a wonderful record of a technology now long disappeared. Rapid fiber glass builds take the place of these wooden vessels. Outboard motors displace idiosyncratic rigs designed to optimize very specialized island conditions. Worse, the knowledge of building these boats as well as the actual vessels themselves has also largely disappeared, and it is not beyond hyperbole to suggest that some of these building techniques could fossilize colonial Georgian shipbuilding techniques.

Pyle devotes a chapter to Barbados (1988: 184-190), in particular in his quest to discover the legacy of the Speightstown Schooner. This type of vessel belongs within the continuum of the Caribbean sloop design, *i.e.* designed to carry passengers and cargo over longer distances. Undoubtedly some of this ship building technology transferred to Barbados through wider cultural contacts, as well as meeting indigenous surviving ship building technologies. Schooners from Nova Scotia, for example, were registered at Bridgetown in the early 1930s, possibly as a consequence of running rum to the USA during Prohibition. Locally-built boats included the 'flying fish' boat (Pyle 1988: 187-188) as well as the Speightstown Schooner, and the latter had long since disappeared when Pyle visited the island in the 1970s.

Historically the Schooner was used to run passengers and cargo down to Bridgetown from Speightstown (a resurrection of this historic sea route has long been mooted as a means of reducing traffic congestion). Certainly, in an era before metaled roads it would have been quicker to travel between the two towns by schooner (given favorable wind). Pyle estimates that the distance of 10 nautical miles (18.5 kilometers) could have been covered in 45 minutes at an average speed of 12/13 knots. This is quite a reasonable estimate given the prevailing trade winds would have allowed for sailing on an efficient beam reach at least as far as the former Pelican Island, off Fontabelle (where the port now stands) until having beat to up into the carenage.

Pyle's analysis suggested, having talked extensively with a local shipbuilder, that once there had been a great deal of shipbuilding knowledge on Barbados, but that over time, given the paucity of good wood available, it became cheaper to import boats from elsewhere. As such the local wooden boat building industry that produced the highly capable and impressive schooner design, with its high rig and iron ballast false keel, and thus built for real speed – died out. Only on the Grenadine islands of Carriacou and Bequia did these traditions survive longer. The memory though of the inter-island schooner trade has recently been made tangible though through the efforts of a joint Canadian-Barbadian initiative. The recently launched (2014) steel Schooner Ruth, built on Browne's Beach by the Barbados Yacht Club, Carlisle Bay, is in fact based upon the design of a Canadian Grand Banks Schooner of the 1920s. Designed to act as a sail training ship, she has a much smaller length-to-beam ratio than the Speightstown schooner (and is longer overall at 30.48 meters/100 foot). Her rig is slightly different too, lacking a bowsprit and spritsail, she has different handling characteristics than the Speightstown Schooner (<http://www.schoonerruth.com/about>).

Maritime archaeology also deals with industrial and economic resource exploitation as well as boats themselves. The area around the Careenage in Bridgetown offers scope for extensive recording of historic buildings and installations associated with maritime trade, which from an early time in the colonial period made Bridgetown very wealthy (Gragg 1991). Similarly fragments of Oistins' traditional maritime industries may still be visible and suitable for archaeological recording and possible preservation (although given that this is a working harbor, economic demands may outweigh this need). It is on the north-west coast at Speightstown, where the present author has been working since 2010, that an extensive program of maritime archaeology has been enacted. The philosophy, aims and findings of this project are described elsewhere in this volume (Finneran, Gray and Lichtenstein this volume; also, Finneran 2012; 2013). Little has been said about the maritime archaeology program at Speightstown, however, and these facets are discussed here. Firstly, it is important to note that Speightstown was an historic entrepôt, in the mid-seventeenth century arguably a rival to Bridgetown and a thriving small cosmopolitan port in its own right (the presence of a significant mercantile Jewish population is discussed elsewhere). The wealth of this town was built on access to the sea, over shorter and longer distances (hence the nick-name Little Bristol). So important was the sea that a series of fortification developed along this coast to protect the main settlements.

Evidence for maritime trade can paradoxically be found within the fabric of the buildings of Speightstown. For example, brickwork visible in the coral walling on the lower floor of the Arlington House Museum probably came over to Barbados as ships' ballast (Figure 20.2). It is interesting to construct the artifact biography here; the bricks originated in a post-medieval building perhaps in Bristol; the building was likely demolished and the bricks used to ballast a 'light' ship for its transatlantic journey to the Caribbean from the English west country. The ballast was unloaded at Speightstown and then sugar was placed in its holds, and then the brick was taken away and incorporated into this wealthy mercantile house as both a structural addition and perhaps also as a statement of wealth (cf. Becker 1977).

Although archaeological research at Speightstown over the last ten years has focused upon recording historic mercantile houses and also coastal sites, a program of



*Figure 20.2. Former ballast incorporated into the building fabric at Arlington House Museum, Speightstown (Niall Finneran).*

underwater survey took place in 2012 with six archaeologists undertaking small-scale survey and recording of features on the sea bed just off the beach at Speightstown (Figure 20.3). This work enabled us to locate the piers of several of the older jetties visible in earlier photographs in the Arlington House Museum (Figure 20.4). To some extent the methodology had to adapt to available equipment, and this was very much an ad-hoc approach. In 2011 an east-west running datum line was fixed to the sea bed and its position marked on the surface by a diving buoy; in turn this was located using a DGPS by a small team in a boat on the surface. In this way a rough survey grid was constructed.

In 2012 rudimentary survey and underwater photography began to record three centuries of artifact deposition here, and demonstrated the potential for further work. Material identified included bottles, ceramics, and what appeared to be a segment of railway line and remains of a crane structure. Studying old photographs, it was determined that this was probably the remains of one of the whaling jetties; we might hypothesize that unlike in Bequia in the St Vincent Grenadines, where whale boats were launched from shore, the Speightstown whaling industry relied on open boats dropped



Figure 20.3. Underwater survey at Speightstown 2012 (Niall Finneran).

from davits (a davit or small crane is clearly visible on the now-disappeared southern (right-hand) jetty shown in the 1940s aerial photograph in Figure 20.4).

The archaeology of the whaling industry at Speightstown, which thrived from the late nineteenth century to the 1940s, is comprehensively outlined in a recent paper (Finneran 2016a). A few broad points may be drawn from that study, which is one of the first real maritime archaeology studies undertaken on Barbados. Firstly, the development of the whaling industry--focusing on the seasonal exploitation of humpback whales (*Megaptera novaeangliae*) for oil and meat--was, like similar developments on



*Figure 20.4. Aerial view of (c. 1940s) two (now demolished) jetties at Speightstown; view looking west (courtesy Karl Watson).*

Bequia, St Lucia, Dominica and Grenada, a factor provoked by the collapse of the sugar plantation system. In fact, the old sugar boilers were often pressed into use as tryworks to render the fat from the carcass of the whale. In many cases across the Caribbean it was not a greatly successful economic response although the industry survives in Bequia, if anything for cultural rather than economic reasons.

Second, the whaling infrastructure at Speightstown differs from the Bequia shore works. Here jetties were used and the whale carcass taken back to the town to one of the mercantile buildings for processing. Third, unlike Bequia where the old open whaling boats are well preserved (and indeed analysis of their hull and construction form permits some intriguing conclusions about cultural synthesis and localized development) we know very little about the nature of the Barbados whaling boats that operated out of Speightstown. There are still a small number of boat builders operating to the south of Speightstown, and at Six Men's beach, but now glass fiber as opposed to traditional wooden building techniques predominate. Looking out to sea from Speightstown today, one would not realize the maritime history of the place. Instead of schooners, whale boats--and in an earlier age galleons--there are now jet skis, large glass fiber yachts and the occasional dive or fishing boat.

### **Looking forwards**

The foregoing discussion has contextualized the place of maritime archaeology and related heritage studies in Barbados against a regional Caribbean picture -- and to some extent against wider global trends. What can we take from this analysis, and what research trajectories could be stressed to develop this area of study in Barbados over the next few decades? Firstly, it should be pragmatically stated that any potential

agenda for such work must be predicated upon issues such as sustainability and local resourcing. This sort of archaeological research is expensive and can be specialized, and there are no blank checks. The three following areas could be developed as cost-effective approaches, and each able to contribute to the greater research profile of maritime archaeology in the Caribbean as well as local heritage development.

Firstly, climate change is an important challenge that has clear implications for the survival of coastal and intertidal heritage assets in Barbados (Mycoo and Chadwick 2012). Rising global sea levels and changing weather patterns will impact further upon already dynamic and changing coastal environments. In the UK, the establishment of the Museum of London CITIZAN initiative is an important innovation in allowing for a rapid coastal survey of intertidal heritage assets at risk from sea level rise and storm damage. This scheme has a strong in-built training element to equip volunteers with the ability to record and photograph sites and enter them onto the National Historical Environment database via a Smartphone App. New sites can therefore be assessed and recorded before they are lost to the sea and extant heritage sites can be monitored from time to time. At the least, a rapid coastal survey of Barbadian heritage assets linked to a digital GIS database (Finneran, Hampden and Lathbury this volume) could be established at no great cost predominantly using open source software. Training and using volunteers would ensure that this is a sustainable and indeed very community-orientated approach.

Underwater survey work is expensive and places stringent health and safety demands upon its practitioners. Across the world though a number of recreational diving groups have undertaken voluntary recording of historic wreck sites and have added greatly to the research database. Such divers have fewer time and cost constraints than professional underwater archaeologists who have been brought in from elsewhere, so are often able to do more work. In the UK the Nautical Archaeological Society has historically played an important role in ‘converting’ recreational divers to competent underwater archaeologists. Within the Barbadian context, it might be possible to arrange informal training events held by professional underwater archaeologists over the course of a long weekend. Recreational divers could be taught to recognize and record artifacts to a high quality standard. The results of these findings would have to be fed into a database, and this adds another layer of complexity, but again these are relatively cost-effective solutions to quite complex and expensive archaeological problems (Cohn and Dennis 2013).

A comprehensive underwater archaeology inventory of Barbadian shipwreck heritage assets is out of the question, but a start has to be made somewhere. One focus would be upon Carlisle Bay, already a popular recreational diving destination. There are any number of local oral history accounts that report the presence of historical artifacts on the sea bed here. There are also, in all likelihood, any number of unrecorded wreck sites of wooden ships dating from the seventeenth century here. It is unlikely given the oceanic conditions that wooden structures will have survived, but the associated artifacts should still be visible. These remains need to be identified as belonging to historical shipwrecks, mapped and recorded in detail and the site given an identifier in the context of any new Barbados historic sites and monuments register. The work of the Speightstown team has already demonstrated the value of underwater survey in focusing upon non-shipwreck



sites, studying the locations of jetty and centuries of lost or discarded cargoes. It need not be an overly complex, expensive or time-consuming process.

Finally, a dedicated program of nautical ethnography and oral history research could focus more on the intangible aspects of Barbados' maritime heritage. Interviews with boat builders, fishermen and inhabitants of the old harbor towns could be digitally recorded and preserved via digital database. Historical and extant boatyards should be recorded and artifacts and documentary material relating to fishing and whaling industries as well as boat building could be collected and archived. In the rush to investigate shipwrecks, maritime archaeologists should not overlook the potential rewards of land-based maritime cultural heritage. In addition, maritime archaeology also focuses upon settlements whose focus is upon the sea; fishing villages are an obvious target of research, but perhaps (and moving more into the scope of the practice of a contemporary or post-modern archaeology) the archaeological imprint of tourism could be usefully explored (Finneran 2016c). The abandoned 1960s surfing holiday village at North Point could offer a useful case study.

Needless to say the role of maritime heritage within the wider scope of heritage policy development in Barbados should not be ignored; this would include a scheduling or listing process to ensure the preservation and management of land-based heritage assets as well as the protection of historic wrecks, in particular to mitigate the problem of treasure hunting and salvage, although this is not a great a problem as in other areas of the Caribbean, Sometimes the maritime heritage of Barbados is directly threatened by natural or economic factors, but occasionally other issues intervene. For example, up until 2012 a large 32-pounder cannon lay in the sea alongside the remains of Denmark Fort in Speightstown. A local entrepreneur had it craned out and mounted on a concrete base not far away at the edge of the road at Alms Gap. It has deteriorated markedly in the absence of conservation expertise and each year the project has undertaken a photographic survey of the cannon to show how rapid this process of degradation is and evidences the need to take heed of the UNESCO 2001 principle of in-situ preservation. Conservation is an expensive business, as the Mary Rose project in Portsmouth, England found out.

Finally, how can we bring this rich maritime heritage in all its forms to the people of Barbados? A CITIZAN-style initiative could help as part of a wider community digital heritage program, enabling everyone to record 'their' maritime heritage, be it an old boat, warehouse or grandfather's tales of fishing off the Speightstown jetties in the old days. There is not enough material to justify the establishment of a separate maritime museum in Barbados, but perhaps maritime archaeology and heritage could be the subject of a standing and small-scale exhibition at the Barbados Museum, building upon the success of the 2013 Whaling exhibition. Small-scale maritime archaeology/maritime heritage and history training could form part of the remit of research projects, such as the Speightstown Project and also within the context of the UWI programs. Multimedia and digital approaches would undoubtedly play an important role here (Watts and Knoerl 2007). The foregoing discussion has shown that Barbados, even as an island whose livelihood is focused upon the sea and is physically dominated by it, has to evolve sustainable strategies for research, recording and managing a diverse maritime heritage that to all intents remains largely invisible to its public.

## References

Bacon, P.

1987. Use of wetlands for tourism in the insular Caribbean. *Annals of Tourism Research* 14/1: 104-117.

Bass, G.

1985. Archaeologists, sports divers and treasure hunters. *Journal of Field Archaeology* 12: 256-258.

2013. The development of maritime archaeology. In *The Oxford Handbook of Maritime Archaeology*, edited by B. Ford, D. Hamilton and A. Catsambis. Oxford University Press, Oxford. Online version OI: 10.1093/oxford-hb/97801993365005.013.0000 (accessed 21 February 2019).

Becker, M.

1977. 'Swedish' colonial yellow bricks: notes on their uses and possible origins in seventeenth-century America. *Historical Archaeology* 11: 112-118.

Boyd, E.

2015. Shipwrecks of Barbados. National Underwater and Marine Agency, available online at: <http://www.numa.net/2015/05/shipwrecks-of-barbados/> (accessed 13th January 2019).

Callaghan, R.

1992. Computer simulations of ancient voyaging. *The Northern Mariner* 9/2: 11-22.

Charlemagne, R., R. Mahon and R. Marshall.

2006. *A Geographical Information System for the Proposed Conservation Area at Long Pond, St Andrew, Barbados*. University of the West Indies Center for Resource Management and Environmental Studies Technical Report 7.

CIA (Central Intelligence Agency).

2015. World Fact Book: field listing coastline. Available online at: <https://www.cia.gov/library/publications/the-world-factbook/fields/2060.html#vc> (accessed 13th January 2019).

Cohn, A. and J. Dennis.

2013. Maritime archaeology, the dive community and heritage tourism. In *The Oxford Handbook of Maritime Archaeology*, edited by B. Ford, D. Hamilton and A. Catsambis. Oxford University Press, Oxford. Online version DOI: 10.1093/oxfordhb/9780199336005.013.0046 (accessed 20 February 2019).

Connell, N.

1957. Father Labat's visit to Barbados. *Journal of the Barbados Museum and Historical Society* 24/4: 160-174.

Drewett, P.

1993. Excavations at Heywoods, Barbados, and the economic basis of the Suazoid period in the Lesser Antilles. *Proceedings of the Prehistoric Society* 59: 113-37.

Drewett, P. and J. Oliver.

1997. Prehistoric settlements in the Caribbean. *Archaeology International* 1: 43-46.

- Drye, W.  
 2015. Treasure on sunken Spanish galleon could be biggest ever. National Geographic, available online at: <http://news.nationalgeographic.com/2015/12/151209-spanish-shipwreck-billion-treasure-archaeology/> (accessed January 13th 2017).
- Finneran, N.  
 2012. Community Archaeology at Speightstown, Barbados 2010-2012: retrospect and prospect. *Journal of the Barbados Museum and Historical Society* 58: 110-136.  
 2013. 'This island is inhabited with all sortes' Creolising the townscape: towards an archaeological biography of Speightstown Barbados. *Antiquaries Journal* 93: 319-351.  
 2016a. Slaves to sailors: the archaeology of Caribbean shore whaling AD1850-2000. *International Journal of Nautical Archaeology* 45/2: 388-405.  
 2016b. De See ain't got no back door. *Echoes Caribbean* 2: 76-79.  
 2016c. Beside the seaside. The archaeology of the twentieth-century seaside holiday experience: a phenomenological context. *International Journal of Historical Archaeology* 21/3: 533-557.
- Fitzpatrick, S.  
 2013. Seafaring capabilities in the pre-Columbian Caribbean. *Journal of Maritime Archaeology* 8: 101-138.
- Fitzpatrick, S., W. Keegan and K. Sealey.  
 2008. Human impacts on marine environments in the West Indies during the middle to late Holocene. In *Human Impacts on Ancient Marine Ecosystems: a global perspective*, edited by T. Rick and J. Erlandson, pp. 157-174. University of California Press, Berkeley.
- Gragg, L.  
 1991. Shipmasters in early Barbados. *Mariner's Mirror* 77/2: 105-111.
- Hamilton, D.  
 2006. Port Royal, Jamaica: archaeological past and development potential. In *Underwater cultural heritage at risk: managing natural and human impacts*, edited by R. Grenier, D. Nutley and I. Cochran, pp. 49-51. Paris, ICOMOS.
- Humphrey, J.  
 2004. Geology and hydrogeology of Barbados. *Developments in Sedimentology* 54: 381-406.
- Johnson, P.  
 1993. Treasure salvage, archaeological ethics and maritime museums. *International Journal of Nautical Archaeology* 22/1: 53-60.
- Leshikar-Denton, M.  
 2002. Problems and progress in the Caribbean. In *International Handbook of Underwater Archaeology*, edited by C. Ruppe and J. Barstad, pp. 279-298. Kluwer Academic/Plenum, New York.

2006. Foundations of Management of Maritime Cultural Heritage in the Cayman Islands. In *Underwater Cultural Heritage at Risk: managing natural and human impacts*, edited by R. Grenier, D. Nutley and I. Cochran, pp. 23-35. ICOMOS, Paris.
2011. Caribbean maritime archaeology. In *The Oxford Handbook of Maritime Archaeology*, edited by B. Ford, D. Hamilton and A. Catsambis. Online version: DOI: 10.1093/oxfordhb/9780199336005.013.0028 (accessed 15th February 2019).
- Lewis, J.  
1984. The Acropora inheritance: a reinterpretation of fringing reefs in Barbados, West Indies. *Coral Reefs* 3: 117-122.
- Luna Erreguerena, P. and M. Leshikar-Denton (editors).  
2008. *Underwater and Maritime Archaeology in Latin America and the Caribbean*. Left Coast Press, Walnut Creek, Ca.
- Mackie, E.  
2005. Welcome the outlaw: pirates, maroons and Caribbean cultures. *Cultural Critique* 59: 24-62.
- McNiven, I.  
2003. Saltwater people: spiritscapes, maritime rituals and the archaeology of indigenous Australian seascaapes. *World Archaeology* 35/3: 329-249.
- Meniketti, M.  
2012. Now they are gone: documenting the last sailing lighter of Nevis, West Indies. *International Journal of Nautical Archaeology* 41/1: 134-147.
- Mycoo, M. and A. Chadwick.  
2012. Adaptation to climate change: the coastal zone of Barbados. *Proceedings of the Institution of Civil Engineers-maritime engineering* 165/4: 159-168.
- National Geospatial Intelligence Agency.  
2004. *Sailing Directions En Route: Publication 146 Caribbean Sea Volume 1* (8th ed.). Lighthouse Press, Annapolis Md.
- Parker, C. and H. Oxenford.  
nd. Environment and development in coastal regions and in small islands: Barbados. Available online at: <http://www.unesco.org/csi/pub/papers/parker.htm> (accessed 17<sup>th</sup> January 2017).
- Pyle, D.  
1988. *Clean Sweet Wind: sailing with the last boatmakers of the Caribbean*. International Marine, Camden, Ma.
- Randall, R.  
1970. Vegetation and environment on the Barbados Coast. *Journal of Ecology* 58/1: 155-172.

- Ransley, J.  
2013. Maritime communities and traditions. In *The Oxford Handbook of Maritime Archaeology*, edited by B. Ford, D. Hamilton and A. Catsambis. Oxford University Press, Oxford. Online version DOI: 1093/oxfordhb/9780199336005.013.0038 (accessed 20th February 2019).
- Sadler, N.  
2008. The Trouvadore Project: the search for a slave ship and its cultural importance. *International Journal of Historical Archaeology* 12: 53-70.
- Sandz, V. and R. Marx.  
2001. *Encyclopaedia of Western Atlantic Shipwrecks and Sunken Treasure*. McFarland Publishers, Jefferson, NC.
- Schuhmann, P., B. Bass, J. Casey and D. Gill.  
2016. Visitor preferences and willingness to pay for coastal attributes in Barbados. *Ocean and Coastal Management* 134: 240-250.
- Smith, R.  
2000. *The Maritime Heritage of the Cayman Islands*. University of Florida Press, Gainesville.
- Stoffle, B. and R. Stoffle.  
2007. At the Sea's Edge: elders and children in the littorals of Barbados and the Bahamas. *Human Ecology* 35/5: 547-558.
- Sullivan, T.  
2002. The Devil's brethren: the evolution of pirate counter culture in the Caribbean. *Teaching Anthropology* 8/2: 11-18.
- Swanston T., T. Varney, I. Coulthard, G. George, I. Pickering, R. Murphy and D. Cooper.  
2015. Synchrotron X-ray fluorescence imaging evidence of biogenic mercury identified in a burial in colonial Antigua. *Journal of Archaeological Science* 58: 26-30.
- UNESCO.  
2016. Underwater cultural heritage. Available online at: <http://www.unesco.org/new/en/culture/themes/underwater-cultural-heritage/2001-convention/> (accessed 14th January 2017).
- Watters, D.  
1998. Maritime adaptive strategies in the Caribbean archipelago. *Revista de Arqueología Americana* 15: 7-31.
- Watts, G. and K. Knoerl.  
2007. Entering the virtual world of underwater archaeology. In *Out of the Blue: Public Interpretation of Maritime Cultural Resources*, edited by J. Jameson and D. Scott-Ireton, pp. 223-239. Springer, New York.
- Welch, P.  
2005. Exploring the marine plantation: an historical investigation of the Barbados fishing industry. *Journal of Caribbean History* 39/1: 19-37.



# Epilogue: The Future of the Barbadian Past

*Douglas V. Armstrong, Maaike S. de Waal, Kevin Farmer,  
Niall Finneran & Matthew C. Reilly*

The chapters that comprise this volume make clear that the archaeological past is a vital component of Barbados' social, political, economic, and cultural identity. Heritage in its many forms has a positive social and economic role to play; this is not some abstract and distant notion but a real force for change in a post-colonial Caribbean island nation facing the challenges of the twenty-first century. As highlighted in the Introduction, how that past has been studied and interpreted has changed over the many decades of archaeological research, and the contributors to this book (drawn from a range of different intellectual and cultural backgrounds) share a commitment to the growth of equitable, sustainable, holistic, and socially engaged archaeological research and heritage programming on the island for the benefit of future generations. In this final section we will critically reflect upon the key themes that recur within these rich and thought-provoking contributions, assessing some of the challenges that await the practice of archaeological and heritage management here as we head into the twenty-first century.

## **Looking backwards: local, regional and international themes**

Trajectories of archaeological research in Barbados broadly mirror those of other Caribbean islands, but with significant differences. First, taking a wider cultural-historical perspective, Barbados was historically under the colonial control of a single European power, and as such it is easier to see Barbados within the political, economic, cultural and social continuum of the English North American colonies, for example, than somewhere like Trinidad, or St Lucia. Pre-colonial archaeological sequences demonstrate differences with neighboring areas (even in the Windwards), and within the wider Caribbean context, owing in part to Barbados' unique geographical and environmental situation. Even within the context of historical archaeological studies there are several areas where research foci on Barbados have shown different directions

than those on other Anglophone islands in particular, and definitely so within the wider context of Spanish, Dutch, French (and rarely Danish) Caribbean identities.

Pre-colonial sites in Barbados are difficult to identify on the landscape at first sight, due to the fragmented character of their material assemblages, often buried under sediment deposits, and the absence of standing structures or monumental constructions. Yet such sites testify to the human presence in Barbados dating back as far as ca. 3000 Cal BC. Although some place-names in Barbados, such as Indian River, seem to refer to the Amerindian past of the island, little direct historical information can be found about the people who were originally living in Barbados. In contrast to many other Caribbean islands, historical references of Amerindian groups living at the island at the time Europeans arrived in the region are very rare and disputable. Therefore, more so than on other islands, archaeology is *the* means to discover Amerindian lifeways in Barbados in the past. The careful observer will notice patches of Amerindian pre-colonial materials scattered over the landscape, which indicate where people used to live and which may hold clues about how they used the landscape. The study of sites, their positions and relations in the landscape, and their material assemblages reveal the story of Amerindian groups living in Barbados between ca. 3000 Cal BC and ca. AD 1500.

Together, the chapters demonstrate that, although impressive amounts of fieldwork and find analyses have been carried out over the past decades, Barbados' pre-colonial past has not fully been revealed yet, and many exciting discoveries are just waiting to be made. De Waal's chapter has indicated that several (inland) post-contact sites also include pre-colonial features and finds. This suggests that future research on the island would benefit from projects that span the often rigid temporal divide between pre- and post-colonial sites. The natural environment in Barbados provided favorable conditions for Amerindian and colonial settlement, and archaeological work that addresses the full diversity and chronology of sites could remedy the scarcity of recent investigations into Barbados' Amerindian past.

While many of the chapters demonstrate that Amerindian sites are far more common than previously believed, the plantation infrastructure has left a more conspicuous and often painful legacy across the Barbadian landscape. Historians have long turned to the plantation to study the local and global social and economic system engendered by sugar cultivation. Archaeology, however, offers a different, unique perspective that allows those interested to engage with the material dimensions of life on the plantation. Chapters in this volume demonstrate that the plantation was/is not a monolithic entity to be studied from a single vantage point, reflecting to some extent archaeological work conducted on plantations in Jamaica (see Introduction). Research on the seventeenth-century growth of the plantation model highlights early debates about how labor was to be spatially organized and controlled, materially documenting how laborers experienced this new space of global capitalism. Studies of such early Caribbean expressions of the English plantation system are rare, as Armstrong's contribution has demonstrated. Further contrasts are afforded by Smith's work at St Nicholas Abbey, and new methodological directions suggested by Shuler *et al.* and Farmer *et al.* In contrast to plantation sites, few Caribbean historical archaeologists have tried to get to grips with urban sites, and both Farmer and Crain and Finneran, Gray and Lichtenstein clearly demonstrate the potential for such studies. The contributions of Alan Armstrong, Bloch and Wallman again all evidence the need to move beyond the site and consider landscape and lifeways in more detail. Many



of the technological applications described in sections two to four have clear application for Caribbean archaeology going forward.

One of the key issues that heritage professionals face in the current economic climate is to make their voices heard above competing demands of developers, educationalists, tourists and other stakeholders. It is a tricky balancing act. Heritage, tangible and intangible, is often low down on the list of infrastructural priorities in any country, not just Barbados. As we hopefully make clear, however, participatory community approaches can bear fruit. Heritage management has to be a bottom-up process that considers local needs. Policy and advice cannot be imposed from without, local legislative systems need to evolve to take into account local needs and circumstances. There is no one size fits all approach to heritage management, and as the late British social historian and writer on heritage, Raphael Samuel, always stressed in his writings, this is a process that is rhizomatic. The chapters in the section on heritage have hopefully indicated that we are on the way to achieving some element of this 'democratization' of heritage in Barbados.

Reilly and Norris' chapter shows us how a community heritage approach to a very forgotten portion of Barbadian society can bear fruits and engage people (their methodologies could equally be deployed on other Caribbean islands too, let us not lose sight of the socio-cultural mosaic of peoples that inhabit these island landscapes). Inniss' paper draws attention to a cost-effective approach to the adaptive reuse of pre-existing routeways through the landscape and cityscape to de-emphasize the notion of a single heritage site and to bring in a more holistic and informative experience, which can at the same time be educational and accessible. Willans and Cole Pragnell take an innovative and ground-breaking approach to reaching out to a segment of stakeholders rarely reached in conventional heritage praxis anywhere in the world: early years children. Surely this imaginative approach can only help in building an awareness of heritage to the future Barbadian consumers of heritage in the twenty-first century? Finneran, Hampden and Lathbury take this notion a stage further and examine the crucial roles that digital tools and platforms can have in developing an awareness of heritage. The participatory element (very much a post-modern approach to heritage practice, and one that surely would have been applauded by Samuel) has the twin benefits of cost-effectiveness and sustainability as well as the feeling of social inclusiveness. This is the creation of a heritage canon in local rather than metanarrative terms. Finally, almost off at a slight tangent, Finneran's examination of maritime heritage on Barbados strongly points to some useful future directions for research (especially when seen within a wider Caribbean context) as well as some potential policy gaps.

## **Looking forwards**

In Barbados, as in many other Caribbean nations, the past is under threat. Such threats are complex and varied, but we here focus on two in particular to draw attention to how archaeologists, visitors, and Barbadians can be stewards of the island's heritage for future generations. The realities of climate change and development are two major forces affecting life on Barbados that also pose potentially catastrophic threats to the island's archaeological heritage. To be clear, the threat to human life, especially from increasingly frequent and damaging hurricanes, outweighs any consideration of heritage, but, as several chapters of this volume have demonstrated, the archaeological past is not

an infinite resource immune to the pressures of twenty-first-century society. With that in mind, we turn to each of these potential threats before offering some suggestions to best protect and promote the island's rich archaeological heritage.

As authors worked hard on their contributions for this volume, hurricanes Irma and Maria swept through the Caribbean in September of 2017. While Barbados fortunately missed the brunt of these vicious storms, they serve as a harsh reminder of the devastation of extreme weather that is growing in scale and frequency as a result of global climate change. Other islands, however, were not so lucky. Irma and Maria pummeled multiple islands for several days, taking human lives, demolishing homes, uprooting entire landscapes, and leaving millions of Caribbean citizens without power or resources. At the time of writing (late Spring 2018) many of the islands were still slowly recovering from the disruption of these storms. In small-scale Caribbean island settings such devastation can be long-lived and hard to mitigate quickly.

In the weeks following these disasters, dozens of travel websites and companies, including major cruise ship operators, callously proclaimed that 'the Caribbean is open for business,' encouraging potential visitors to proceed with their vacation plans despite scenes of suffering and destruction throughout the region. Tourism is undoubtedly a vital economic resource for the Caribbean, but the sentiment expressed in the slogan raises important questions about the place of heritage in moments of economic and climatic instability. First, do broader economic forces like tourism that brand the Caribbean as a tropical playground trump local crises and devastation? What is prioritized in relief and reconstruction efforts? Who or what is being served when the Caribbean is 'open for business'? This sort of language is not helpful, and it is almost worth suggesting an Edward Said-type, post-colonial prism be applied to the occident, and to relearn the language of writing about Caribbean history and heritage. The notion of the tropical playground is a troubling stereotype that we as academics with a stake in the island heritage constantly battle.

So, while tour operators clamored to get tourists back on the cruise ships and in resorts, archaeologists assessed the damage to local sites of cultural and archaeological significance. Archaeologists and heritage experts took stock of how sites and structures fared the storms, documenting resources that were lost or severely damaged. The unsettling question that must be raised is this: how will Barbados fare with more frequent and potentially more disastrous storms? The destruction wrought by these storms is a harsh reminder that heritage sites and historic structures are vulnerable, protected sites and regions are under threat, and institutions that house invaluable collections risk flooding and high winds. While institutions like the Barbados Museum and Historical Society, the Barbados National Trust, and private enterprises work tirelessly to protect and conserve historic sites around the island, to this date, there exists no centralized database of archaeological and heritage sites. The collection and maintenance of such heritage information is essential to ensure its longevity in the future (cf. Finneran *et al.* this volume). The decentralized storage of archaeological materials, either in institutions within and outside Barbados, hinders the creation of island-wide site inventories. Such a centralized database and storage facility (which should have state of the art storage and archiving conditions) needs to be also underpinned by effective legislation, crafted to fit local realities, and not merely imported wholesale from elsewhere.

As many Barbadians are keenly aware, coastal erosion and sea level rises, consequences of global climate change and development, also threaten significant archaeological sites and resources. Along the east coast of the island, large chunks of tracks that once carried trains between Bridgetown and Belleplaine regularly fall into the waters of the Atlantic. Coastal sites that were once fishing and habitation grounds for Amerindian groups continue to be washed away as sea levels rise (De Waal this volume). Rapid coastal erosion can be devastating for rich archaeological sites, necessitating the documentation of vanishing sites, the development and delivery of policies that counteract the forces of climate change, and governmental restrictions on development along shorelines (paradoxically the key tourist and thus economic asset in any Caribbean island economy).

The sights and sounds of construction around the island are daily reminders of the pace of developmental growth. Whether a public housing project in St. Philip or the next multi-story luxury hotel in St. Michael, development poses a major threat to archaeological resources. In addition to the demolition of historic homes and structures around the island to make way for new developments, buried archaeological sites are often flippantly ignored and disturbed during construction efforts. One of the best-known cases comes from Peter Drewett's salvage excavation work at Heywoods in St. Peter (Fitzpatrick and De Waal this volume). As development of what would become Port St. Charles loomed, Drewett and his teams were left with limited time to carefully document and collect the impressive collection of materials related to what may have been one of the most important Amerindian villages in Barbados. In addition, at Heywoods the only evidence for Archaic Age occupation in Barbados has been found so far. Other Barbadians familiar with archaeology on the island will recall instances when construction crews actively discarded archaeological finds in fear that they might slow or completely halt development. Drewett's work at Heywoods, which generated huge amounts of quality research data, still stands as testimony to one of the few properly conducted rescue archaeology projects in Barbados.

While development and growth are inevitable and often desirable engines that move the country forward, these forces do not have to be detrimental to the island's archaeological resources. Following models from other nations, cultural resource protection acts can be put into law, requiring developers to consult with archaeologists prior to acts of demolition and construction. An important first step could be the creation of an archaeological predictive map for Barbados, indicating where archaeological resources are located or may be expected. Such maps allow increased possibilities for (1) advising spatial developers by planning officers, (2) steering of archaeological research, (3) protecting and managing archaeological values and (4) increasing public education and heritage awareness (De Waal *et al.* 2019<sup>1</sup>). If private and public enterprise seeks to develop Barbados' future, it must also respect its past. A cultural resource management sector would provide job opportunities for aspiring heritage professionals and bring public awareness to the island's rich archaeological

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1 De Waal, M., J. Lesparre, R. Espersen and R. Stelten. 2019. The effectiveness of archaeological predictive maps. Management and protection of archaeological sites in St. Eustatius and Saba, Caribbean Netherlands, *Journal of Cultural Heritage Management and Sustainable Development*, <https://doi.org/10.1108/JCHMSD-02-2018-0014>.

record. The discovery, documentation, excavation, and even preservation of such sites can be assets that contribute to the growth of the Barbadian economy, but given recent directions in the funding of humanities degrees at tertiary level, this might remain an aspiration. Academically capable students will turn their attention to degrees that are perceived to have added 'value' in the workplace such as vocational subjects rather than history degrees (that have traditionally formed the entry point to the heritage professions in the Caribbean as a whole).

The threats of climate change and development can be mitigated by community engagement, social awareness, and action. Barbadians are already taking action to protect and conserve their island. Groups like the Future Center Trust are committed to building a sustainable future. Collaborations between this organization and those dedicated to cultural resource and heritage management have the potential to have a significant impact on the future of island heritage. Archaeologists have demonstrated the challenges and potentialities of the future of Caribbean heritage, and volumes like Peter Siegel and Elizabeth Righter's *Protecting Heritage in the Caribbean* (2011) and Corinne Hofman and Jay Havisser's *Managing our past into the future. Archaeological heritage management in the Dutch Caribbean* (2015) make clear that protecting local heritage requires close collaboration between professionals and community members. This means that archaeologists working in Barbados have a responsibility to work with those most intimately attached to sites of heritage. This also means that community members should be active in making their voices heard when the much needed legislation for archaeological research will be discussed and established, putting their mark on how archaeological sites are excavated, protected, interpreted, and presented to the public.

The in-depth, time-consuming, and dedicated efforts of the archaeologists whose words appear in this text indicate that the island's archaeological past is deserving of investment. We implore government agencies to make a similar commitment. In the midst of financial hardship at the national level, cultural heritage must not be cast aside. Institutions like the Barbados Museum and Historical Society, The University of the West Indies, and the Barbados National Trust have the potential to reach younger generations of Barbadians to expose them to the power of the past. Without the proper support, however, heritage management has a bleak future. Without measures put in place to protect the island's cultural resources, neglect or a violent storm can potentially obliterate invaluable treasures that speak to the island's identity in the past, present, and future. These words also have resonance for the wider Caribbean archaeology and heritage community; these are all common problems.

Sites and collections can and must be made available for all Barbadians to enjoy. Exposure and awareness are essential for attracting a new generation to the island's archaeological resources. In the wake of the 50<sup>th</sup> anniversary of Barbadian independence, the young nation is in need of a rising generation of Barbadian professionals and scholars to carry the torch for their nation's archaeological, cultural, and heritage resources. It is hoped that this volume inspires young Barbadians so that the pages of a new version of this text will be filled with contributions from more Barbadian professionals. Part of the process of decolonizing the field of archaeology includes more community and local involvement in archaeological practice. A commitment to the training of local heritage professionals will lead to an archaeological and heritage infrastructure by Barbadians, for Barbadians, and for the rest of the world.

# Acknowledgements

The editors owe a great debt of thanks to Benoît Bérard and Philippe Bertalmio of the Tabouï Caribbean Archaeology Series for all of their assistance and support in readying this volume for publication. Editorial assistance was provided by Powell le Feuvre and Xana Barroso of the Department of Archaeology, Anthropology and Geography of the University of Winchester. While this volume highlights academic contributions to the archaeological study of Barbados, the editors also wish to acknowledge the hardwork and dedication demonstrated by Barbadians who have long championed, promoted, and protected the island's archaeological heritage.



## Author biographies

**Alan D. Armstrong** is a doctoral candidate at Northwestern University. He has completed his doctoral field research exploring cotton plantations on St. John (formerly Danish West Indies) and is in the process of writing his dissertation. He has field experience in Barbados, the US Virgin Islands, Dominica, and New York.

**Douglas V. Armstrong** (Ph.D. UCLA 1983) is Professor and Chair of the Anthropology Department, Maxwell School at Syracuse University where he holds a Meredith Professorship. He has been engaged in archaeological and historical research in the Caribbean since the late 1970s. His research focus has been on cultural transformations and ethnogenesis related to the African Diaspora. He has worked throughout the Caribbean, as well as in West Africa, and New York. For the past several years he has carried out research in Barbados.

**Lindsay Bloch** (PhD, University of North Carolina at Chapel Hill, 2015) is the Collections Manager of the Ceramic Technology Laboratory and Florida Archaeology at the Florida Museum of Natural History. Her research focuses on craft production, trade, and exchange in historic and prehistoric contexts through the lens of utilitarian ceramics, with a particular focus on plantations of the Atlantic World. She has conducted analyses on collections from the southeastern U.S., Great Britain, and the Caribbean.

**Liesje Cole-Pragnell** is an early years teacher in Barbados and works at St Nicholas Nursery where she has been developing imaginative approaches to early years education and history. This is her first academic publication.

**Christopher Crain** is a doctoral candidate in Historical Anthropology at the College of William and Mary and an adjunct instructor in the Department of Sociology at Saginaw Valley State University. His areas of interest are in bioarchaeology and forensic anthropology (with a focus on interpersonal violence), ancient DNA analysis, the epistemology of race, and the African Diaspora. The focus of his research is the interplay of physical, structural, cultural, and ideological violence and how they intersect in the subjugation and marginalization of both historical and modern populations.

**Alissandra Cummins** GCM, B.A. [Hons.], M.A., FMA is Director of the Barbados Museum & Historical Society. She has been elected to key positions within international relations, museum and heritage fields involving UNESCO, World Heritage Committee, International Council of Museums, Commonwealth Association of Museums, International Association for Caribbean Archaeology and Museums Association of the Caribbean. Ms. Cummins currently serves as Editorial Board President for International Journal of Intangible Heritage, UWI Principal Investigator on the EU-LAC-MUSEUMS project and as (Advisory Board) Member for World Monuments Watch Selection Committee, International Coalition of Sites of Conscience and International Network of the Slave Route Project.

**Maaïke S. De Waal** (PhD) is assistant professor at the Faculty of Archaeology of Leiden University (the Netherlands). She is a partner in ARGEOgraph, an archaeological company specializing in geoinformatics in archaeology. Previously, she was lecturing in archaeology at The University of the West Indies (Barbados). She specializes in pre-colonial Caribbean archaeology, and her research interests include Caribbean archaeology, landscape archaeology, archaeological survey, settlement patterns, mobility and interaction and pre-colonial ceramics.

**Kevin Farmer** MA is Deputy Director of the Barbados Museum and Historical Society (BMHS). He lectured Archaeology in The University of the West Indies Departments of History at St. Augustine, Trinidad (2010-2011) and at Cave Hill, Barbados (2011-2014). His research interests are provenance and trade networks of locally made ceramics in Barbados and he has written extensively on matters relating to cultural heritage management in Barbados.

**Jeffrey Ferguson** is an Associate Professor of Anthropology at the University of Missouri. His research focuses on the compositional studies of ceramics and lithics in the American West and many other regions of the world.

**Niall Finneran** holds a PhD from the University of Cambridge and is Reader in Historical Archaeology and Heritage at the University of Winchester, England. An anthropological archaeologist with specializations in heritage management, material culture and nautical and landscape archaeology, he has worked at Speightstown in Barbados since 2010 and also undertakes community heritage work among the Garifuna on St Vincent, as well as nautical archaeological work on the Grenadine island of Bequia.

**Scott M. Fitzpatrick** is a Professor in the Department of Anthropology and Associate Director of the Museum of Natural and Cultural History at the University of Oregon. He is an archaeologist who specializes in the prehistory and historical ecology of island and coastal regions, particularly the Pacific and Caribbean. Much of his research has focused on prehistoric colonization events, seafaring strategies, adaptations to smaller islands, exchange systems, and human impacts on ancient environments. Dr. Fitzpatrick is the founding Co-Editor of the Journal of Island and Coastal Archaeology and published several books and more than 100 journal articles and book chapters.



**Michael D. Glascock** is a research professor at the University of Missouri-Columbia's Research Reactor (MURR). In 1988, he established the Archaeometry Laboratory at MURR to support the use of neutron activation analysis for studies of archaeological materials. He has co-authored more than 500 articles on compositional analysis of ceramics, obsidian and other artifacts. He is the co-editor of *Archaeological Chemistry: Analytical Techniques and Archaeological Interpretation*. In 2009, he received the Fryxell Award for Interdisciplinary Research from the Society for American Archaeology.

**Alexander Gray** holds a BA and MA from the University of Winchester where he studied in the Cultural Heritage and Resource Management programme. He worked at Speightstown for a number of years with Dr. Finneran. He currently works in commercial archaeology in the UK.

**Laura Hampden** studied in the MA for Cultural heritage and Resource Management at the University of Winchester. Half Barbadian, she works for English Heritage on Afro-Caribbean community heritage and is especially interested in the use of technology to make heritage more accessible.

**Mary Hill Harris** is an Honorary Assistant Curator at the Museum of Archaeology and Anthropology, Cambridge University. Her first degree was an A.B. in Philosophy from Radcliffe College. Work on the Tehuacan Archaeological-Botanical Project in Mexico in the 1960s inspired her to do a second degree in archaeology at Cambridge University (B.A., M.A.). Since 1979, she has worked on the American collections at Cambridge, and since 1985 has specialized in the prehistoric pottery of the Caribbean, in particular Tobago, Barbados, Nevis and Carriacou.

**Tara A. Inniss** is a Lecturer in the Department of History and Philosophy at Cave Hill, University of the West Indies (UWI). Her teaching and research foci include: history of medicine, history of social policy and heritage and social development. Dr. Inniss was a member of the Research Team which assembled the Nomination Dossier for UNESCO World Heritage Property Historic Bridgetown and its Garrison. She currently sits on several committees for the Barbados World Heritage Committee, Barbados Museum and Historical Society and the Association of Caribbean Historians.

**Quetta Kaye** received her PhD from the University of London in 2010 and BA (First Class Hons) in 1994. She has been involved with Caribbean archaeology since excavating in Barbados in 1993 and then as co-Director of the Carriacou Archaeology Field Project from 2003-2015. She has been Secretary of the International Association for Caribbean Archaeology since 2003. Areas of research interest include the prehistory of the Caribbean and the circum-Caribbean area; the ancient use of hallucinogens and altered states of consciousness and archaeobotanical and chemical analysis of prehistoric materials for evidence of intoxicants.

**Alice Lathbury** studied in the MA for Cultural heritage and Resource Management at the University of Winchester where she is currently a librarian. Her interest lies in

archives and digital heritage, and she worked as an advisor to Dr. Finneran on his Speightstown project.

**Rachel Lichtenstein** is a published author and social historian with a specialism in Jewish history. Her books include: *Rodinsky's Room* and *Estuary*. She co-directs work at Speightstown with Dr. Finneran, and is Associate Professor at Manchester Metropolitan University where she teaches non-fictional creative writing.

**Derek Miller** is currently the Assistant Director of Community Relationships and Community-Engaged Learning in the Bonner Center for Civic Engagement at the University of Richmond. He has previously served as a lecturer of Anthropology at the University of Richmond and Sweet Briar College. For this research he received the Bernard and Audre Rapaport Fellowship at the American Jewish Archives and the Touro National Heritage Trust Fellowship at the John Carter Brown Library. He received his Ph.D. in Anthropology, with a specialization in Historical Archaeology, from the College of William and Mary.

**Ainsley Norris** spent his childhood in the Below Cliff community and has resided in the Barbadian Parish of St. John throughout his life. He maintains an avid interest in Barbadian history and archaeology. He has undertaken independent geneological research on his family's history. His knowledge of the east coast of Barbados stems from years of residence, labor, and subsistence farming in the area. In addition to his collaborations with international historical archaeologists, he and his family have identified and protected pre-Columbian sites on the island's east coast.

**Matthew C. Reilly** is an Assistant Professor of Anthropology at the City College of New York. He conducts research in Barbados and Liberia. He is the author of *Archaeology below the Cliff: Race, Class, and Redlegs in Barbadian Sugar Society*.

**Kristrina A. Shuler** (Ph.D. 2005, Southern Illinois University) is an Associate Professor and Director of the Anthropology program at Auburn University. Her work as a bioarchaeologist has focused on late prehistoric and historic communities in the eastern U.S. and Caribbean, including the U.S. Moundville region, early colonial Maya children from Tipu in Belize, and enslaved Africans from the Newton Plantation in Barbados, among others.

**Hannes Schroeder** (DPhil, University of Oxford) is Assistant Professor at the University of Copenhagen. His research centers around isotope and ancient DNA analysis in archaeology. He has a long-standing interest in Caribbean archaeology and the history of slavery in the region. From 2011-2015 he was one of the PIs of the EUROTAST Marie Curie ITN ([www.eurotast.eu](http://www.eurotast.eu)) project that looked at the history and global legacies of the transatlantic slave trade. Next to his work in archaeology and ancient DNA, Hannes is also interested in the social uses of genomic data, for example in the context of genetic ancestry testing ([www.citigen.org](http://www.citigen.org)).

**Frederick H. Smith** holds a Ph.D. in Anthropology (University of Florida, 2001). He is Director of Archaeology and History at St. Nicholas Abbey, Barbados, where he began archaeological investigations in 2006. Since 1995, Smith has conducted historical archaeological research in Bridgetown, Holetown, and Mapps Cave, Barbados. Smith recently worked on Barbados' 10-year Physical Development Plan to establish the protection of cultural heritage. His books include *Caribbean Rum: A Social and Economic History* (2005) and *The Archaeology of Alcohol and Drinking* (2008; both University Press of Florida). He has also published numerous articles on the role of alcohol in Caribbean society.

**William D. Stevens** is a biological and forensic anthropologist employed as Deputy Coroner for the Richland County Coroner/Medical Examiner's Office in Columbia, South Carolina, and as adjunct professor of anthropology at the University of South Carolina. His research interests include bioarchaeology of the historic period, military sites archaeology, south-eastern archaeology, and plantation slavery studies. He has consulted with numerous South Carolina law enforcement agencies on cases of human remains recovery and identification.

**Diane Wallman** is an Assistant Professor of Anthropology at the University of South Florida. Her research focuses on the archaeology of Atlantic Slavery. As a zooarchaeologist, she focuses on human-environment interaction in the Southeastern United States, the Caribbean, and in West Africa. She has recent publications in the *Journal of Ethnobiology and Environmental Archaeology*.

**Lucy Willans** studied in the MA programme for Cultural Heritage and Resource Management at the University of Winchester, where she is currently undertaking a PhD with Dr Finneran on education and community heritage. She has worked extensively at Speightstown with Dr Finneran and currently also teaches humanities and education at Petroc College, Barnstaple, Devon.



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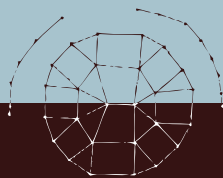


## PRE-COLONIAL AND POST-CONTACT ARCHAEOLOGY IN BARBADOS

This volume provides one of the most comprehensive overviews of the archaeology of a single Caribbean island yet published. Drawing together scholars from the Caribbean, north America and Europe, all working from a range of disciplines within the broader scope of archaeology, and drawing upon recent and innovative fieldwork, the collected papers touch upon a wider variety of archaeological case studies.

Divided into four sections each under the editorial supervision of a specialist scholar, the papers contained in this volume start with an overview of different approaches to the pre-contact archaeology of the island of Barbados and focus upon recent debates and issues surrounding material culture, economic change and site location. Two following sections focus upon recent developments in historical archaeology, looking at a series of urban and plantation case studies, and then the application of scientific techniques to material cultural and ecofactual evidence. The final section considers the social implications of Barbados' past and recent developments in community heritage, education and management.

Extensively illustrated and referenced, this volume considers in detail the historical diversity of archaeological work undertaken on the island, yet will also look forward to examine the key trends and currents that will inform the study of the archaeology of Barbados in the future. With such a rich wealth of material, this is a volume that will have considerable impact upon the wider context of Caribbeanist archaeology, history and heritage studies.



# TABOUJ NO. 5

COLLECTION D'ARCHÉOLOGIE CARAÏBE  
DIRIGÉE PAR BENOÎT BÉRARD



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ISBN: 978-90-8890-845-3



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