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## Abstract

Between 1670 and 1785, the plantation elite on the British island of Antigua built and maintained at least fifty-four fortifications to protect the island from other European competitors. Rather than being commissioned, engineered, and defended by the metropolitan government in London, the defense of the island was the sole purview of the Antiguan legislature. Money, designs, and locations for these defensive sites came from internal deliberations on the island making them unique places to study iterations of seventeenth and eighteenth century British colonialism, elite thinking, and the impact on the landscape. To interpret these sites, I use archaeological, archival, and spatial analyses to investigate their ability to provide the types of external defenses they were designated for, as well as test the corollary explanation that the forts played a role in providing internal security for the island. Neither paradigm, however, adequately explains the spatial distribution, architectural decisions, or addresses the heterogenous fort societies revealed in this research. Therefore, to better interpret Antigua's fortifications, I develop the concept *martial landscape* as an explanatory framework whereby the island elites manipulate defense policy to better reflect their own social standings, rather than considering a holistic defensive structure. I conclude by showing how blanket assumptions about military sites like fortifications and the historic trajectory of colonialism in the Caribbean are concepts which need considerable tempering by a more local, island scale, perspective.

Putting Forts in their Place: The Politics of Defense in Antigua, 1670-1785

by

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B.A., St Olaf College, 2010  
M.A., Bristol University, 2012

Dissertation

Submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy in *Anthropology*.

Syracuse University  
December 2018

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## **Author's Note and Abbreviations**

Dates have been modernized throughout this dissertation, with January 1<sup>st</sup> beginning the year, rather than March 25<sup>th</sup> under the Julian calendar used in Antigua until 1752. For archival citations I cite the volume number and entry date. For entries recorded under the Julian calendar, I kept the original year, and added the modernized year after it, separated by a slash. Original spelling and grammar are retained throughout the text.

CO	Colonial Office, The National Archives, London
CSPWI	Calendar of State Papers, Americas and the West Indies
MR	Map Room, The National Archives, London
NAAB	National Archives of Antigua and Barbuda

## Chapter 1: In Defense of an Island Colony

*My name is Ozymandias, King of Kings;  
Look on my Works, ye Mighty, and despair!*  
Percy Bysshe Shelley<sup>1</sup>

### Introduction

Eighteenth-century fortifications occupy an outsized role in contemporary cultural imagination. Reinforced by loud rappings in cannonading demonstrations, imposing reconstructed and conserved bastions, wrapped in national origin stories, we have oversubscribed the abilities of fortifications in the early modern period by being overwhelmed by the symbolic ascriptions of power and violence, tying them to colonial and imperial projects and a narrative of European inevitability (e.g. G. Parker 2014). As it turns out, perhaps we should question how do these stone edifices, imbued with the conviction of invincibility and power, hold up under an attack? Contrary to the descriptions of glory and valor deriving from imperial violence and colonial expansion, Antigua's fortifications face a different historiography, where they were described in context as, "fallen to Decay," (CO 9/20: 8 March 1749), "neglected and dilapidated," (MR 1/1070 [1832]), and "disappointed," (NAAB 314: 15 February 1695). These descriptions provide the entry point into this research: how do we begin to parse apart our cultural fortification fetish imbued with languages of power and violence with the deprecating and belittling historic descriptions (e.g. Dawdy 2016)? What does the spatial distribution, development, and change in the orientation and location of Antigua's fortification system between 1670 and 1785 say about the organization and structure of power on Antigua's landscape? And, who planned, paid for, built, maintained, and guarded these defensive points, and how can we evaluate the impact on the social landscape of the island?

---

<sup>1</sup> Shelly, Percy Bysshe *Ozymandias* 1818.

With colonial Caribbean fortifications routinely described as, “monumental,” (Armstrong 2013: 529) “renowned,” (Watters 2001: 97), “impressive,” (Buckley 1998: 71-72), and “audacious,” (Sarmiento 2011: 4), it is assumed that, logically, defense in the age of smoothbore artillery worked: that the military advantage lays with the defenders. This perceived advantage, then, reifies the narrative of overwhelming colonial military power, feeding into structures of violence and coercion symbolic of empire. Indeed, Tessa Machling (2012: 47-49; see also Leech 2010), identifies a British fort tradition in the eastern Caribbean, expanding in the eighteenth century, claiming “the Caribbean fortresses became symbols of British imperial dominance: massive, unassailable structures built and maintained by the toil of subdued slaves. Their defenses were not enough to protect entire islands: however, the presence of such awe-inspiring structures might stop an enemy ever trying.” This narrative is borne, in part, by historical figures, such as Louis XIV (r. 1643-1715), King of France, who ordered his cannon cast with the inscription “Ultima Ratio Regnum.” Translated “The Last Argument of Kings,” this phrase neatly encapsulates the tendencies to over ascribe the potency of the seventeenth and eighteenth-century state’s monopoly on the use of coercive force to maintain the state’s apparatus (Weber 1919; see also Waters, forthcoming). The booming report, belching fire, and stench of sulphur associated with cannon evoke feelings of power and violence. When arrayed along a wall, with the black tubes standing watch over a bay behind thick stone parapets, it is easy to imagine few things more powerful than the seventeenth- and eighteenth-century fortress: seemingly impenetrable. What could stand up to the sheer, terrifying, raw power of these defensive positions?

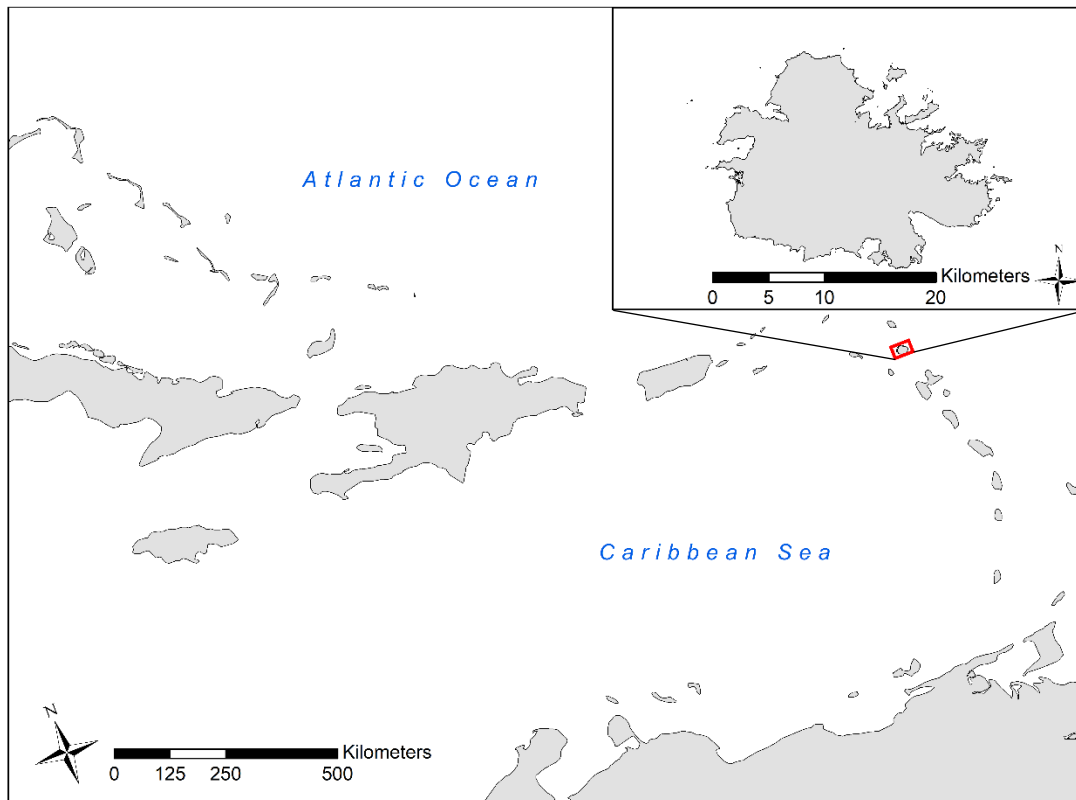
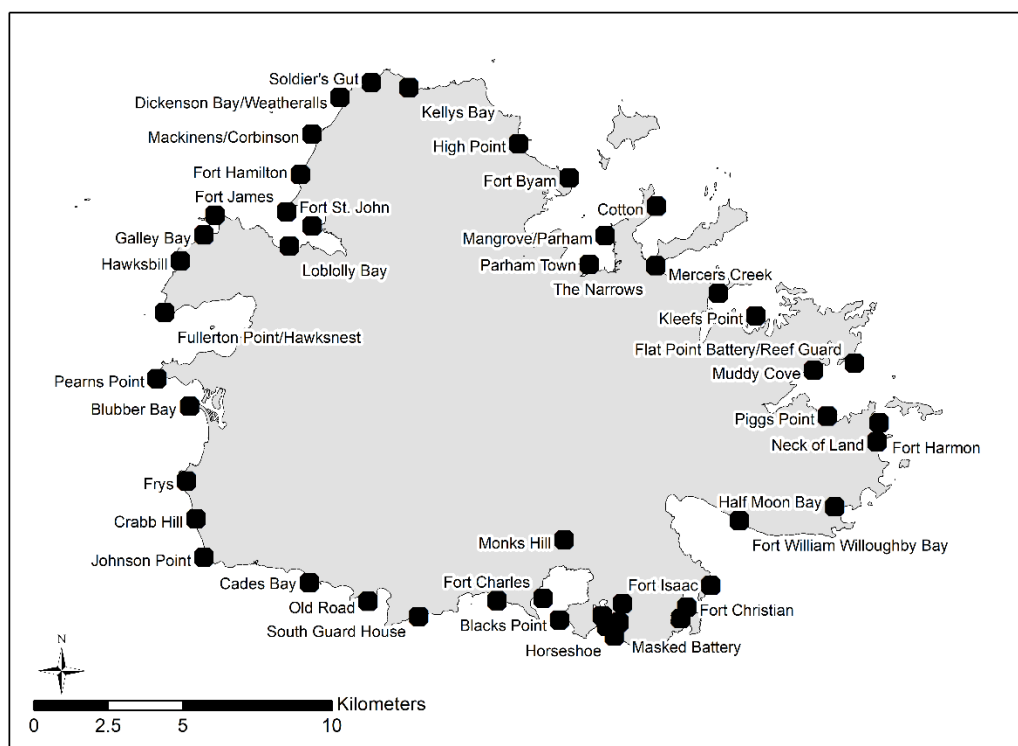


Figure 1.1: Caribbean and Antigua. Illustration by Christopher K. Waters.

Antigua is one of the “Wayward Leewards,” (Lowenthal 1996); an independent, formerly British, island in the Eastern Caribbean. At 108-square miles, Antigua is one of the larger islands in a chain which stretches from Trinidad off the coast of South America, northwards to Puerto Rico (Figure 1.1). David Lowenthal describes this chain of islands as evolving their own unique cultural landscape, exhibiting an “ineluctable diversity,” in the face of imperial neglect and shifting economic centers, a process only enhanced by their small size (1996: 186). Natalie Zacek’s *Settler Society in the Leeward Islands* (2010), a historical treatment of the British Leeward Islands<sup>2</sup> with roughly the same temporal scope as this project—1670-1785—describes

<sup>2</sup> Antigua was settled in 1632 by English colonists from neighboring St. Kitts under the auspices of the English monarchy. This became British after the Acts of Union in 1707. These terms are used to maintain this temporal boundary unless referred to a specific individual’s national origin (e.g. English,

the Leeward Islands as “literally on the margins of [the] world, with many scholars still uncertain about their precise location” (Zacek 2010: 15; see also Crawley 2015). Their relatively marginal position today, however, does not reflect the economic and strategic significance of these islands in the seventeenth and eighteenth centuries (see Menard 2006: 1; Mulcahy 2014: 3). As the drivers of European capitalism and industry, the Eastern Caribbean sugar islands’ story is a lurid one, where “Long years of warfare with the French taught the island planters to flee rather than fight, to accept frequent demolition of their property as a fact of life, and to lobby for compensation from the home authorities,” (Dunn 1972: 118).



*Figure 1.2: Historic and archaeologically known fortifications in Antigua. For a synchronic depiction of Antigua’s fortifications, see Figures 4.11, 4.12, 4.13, and 4.14. Illustration by Christopher K. Waters.*

Scottish, Irish). For a discussion on the use of English and British as markers of identity, see Barber 2007; Gragg 2003; Shaw 2013; Zacek 2007; 2008; 2009; 2010.

Whereas Christopher Chase Dunn sees flight and fatalism, the islands were not as defenseless as he frames in his argument: each island boasts at least a single large, and today visible, fortification (Buisseret 1973). Largely consigned to the bush and standing in ruins, however, are the countless smaller batteries, redoubts and other fortified positions which dotted the coastlines, hilltops and ridges on every island: denying access to landing beaches and providing cover for merchant vessels fleeing pirates, privateers, and naval vessels (Machling 2012; Verrand 2004). Singly, each defensive point represents at a minimum a series of social, political, and ideological processes entangled within the historical contingencies manifesting in the landscape (Figure 1.2). Taken together, these fortifications offer evidence for how space is socially constructed holistically across the island, and demonstrate the shifting priorities of the elites in charge by providing a framework for examining what they are purporting to protect and when they decide to protect it.

To frame this research about Antigua's defenses between 1670 and 1785, I focus on my primary unit of analysis—the island—and the nested, multivalent landscape which arises from the historical contingency of seventeenth and eighteenth-century life in the Caribbean. Next, I reexamine the debates around colonialism and the conceptual and methodological issues that contemporary colonial and postcolonial theory carry, arguing that the term colonial has been pushed so broadly that it has lost some of its interpretive potency. By refining the colonialism literature and applying it to the chronological and contextual situation of Antigua in the seventeenth and eighteenth century, I call for a more nuanced and pointed deployment of colonialism theory. I conclude by weaving these three threads together to define the concept of a *martial landscape*: an armed landscape, but one which is explicitly not military. By this, I mean that the military—Royal Army and Navy—and paramilitary—the Antigua Militia—play



subservient roles to, and factor in the machinations of, a small sliver of Antigua's population in their efforts to maximize capital and social profits. Antigua's defense policies, materialized in a shifting distribution of guard houses, coastal batteries and forts manifest this local elite control of the landscape, and illustrate the degree to which the colonial power structures influences the island.

**“Water, water, everywhere”; what’s an archaeologist to think?<sup>3</sup>**

Islands, especially small islands, are important to theorize about spatially because they are surrounded by water. Islands have provided anthropology and archaeology with more than a century's worth of investigation and interpretation (Fitzhugh and Hunt 1997: 380). The theories range from seeing an island as a laboratory, a place where culture and cultural development can be studied in isolation, to understanding island populations as highly mobile, with culture and trade spanning thousands of miles of sea. The former view has its origins in biogeography, where organisms develop differently given the limited resources and the effect that isolation has on genetic diversity (Fitzhugh and Hunt 1997; Stocking 1992; see also Mead 1942: 10-11). The latter derives from the idea that humans are complex social beings, who can manipulate the environment and natural resources not just for survival, but develop new cultural and technological adaptations to maintain long, complicated social networks spanning many islands, as well as larger landmasses (Boomert and Bright 2007; Fitzpatrick and Anderson 2007; Erlandson 2008; Ford 2001a, 2011b, 2011c; Rainbird 2007; Westerdahl 1992, 1994, 2011a, 2011b). The fundamental difference between these two views is how the ocean is conceptualized: as a barrier preventing movement, or as a “highway” facilitating movement (Boomert and Bright 2007: 10; Rainbird 2007: 26-45; Thornton 2012: 5).

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<sup>3</sup> Paraphrased from *The Rime of the Ancient Mariner* by S. T. Coleridge, 1798

Rather than succumbing to this bifurcation, it is more useful in understanding the body of water surrounding an island as an opportunity just as much as it is a barrier. On an island like Antigua, the ocean is ever present. Except for a few inland valleys, the ocean is always visible. It was simultaneously the source of wealth, food, trade, and news maintained by the social links that held together the Atlantic World economy (Mulcahy 2014; Roper and van Ruymbeke 2007; Satsuma 2013; Thornton 1992; 2012), as well as a locus of grave danger vulnerable to enemy warships, privateer raids, pirate activity, and the natural forces such as storms (Mulcahy 2006; Skowronek and Ewen 2006). Antigua, as a seventeenth and eighteenth-century sugar island, was wholly dependent on keeping the shipping lanes open and maintaining their linkages to the wider world for survival.<sup>4</sup> Enacting control over the waters was localized and fleeting, dependent on the deployment of naval resources. Conversely, this ephemeral control also meant naval patrols could be avoided, and control passed as winds shifted or storms approached. To leave the island required access to a vessel. For those who could not pay to leave, or were unable to sneak aboard a vessel to flee the island, (for example, those deserting a military post, escaping debt, or an enslaved person running away) the ocean was a huge barrier. At only 108 square miles, eighteenth-century Antigua did not have spaces where someone might be able to successfully evade capture for any length of time. Without even the slightest possibility of escape, especially for the enslaved population, the social pressures mounted, creating a situation where fears of insurrection and attack were constantly present. These internal pressures engendered different responses to external and internal threats, thereby creating different spatial priorities than those

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<sup>4</sup> Richard Sheridan (1970) estimates that sugar, rum and molasses comprised 99% of all of Antigua's exports between 1750 and 1775. Sugar was so profitable and land so scarce, that provisions were largely ignored, making Antigua dependent on North America and Ireland for supplies (see O'Shaughnessy 2000: 71; Sheridan 1976).

in continental, or even large island, situations. Thus, the ocean stands as both the physical creator of, and the relief from, entropic isolation for an island population.

The water additionally offers an opportunity to derive traffic patterns: movement across the water circumscribed by limiting environmental factors: sailing vessels can only go where the wind blows. Islands exist in the physical world, and human innovation in harnessing the environment creates limitations. Movement on the open ocean is unlimited, with the ability for any vessel, with time and maneuvering, to occupy any given point where maneuvering is a matter of time and will. Approaching land, however, rapidly reduces the number of available options, and accessibility to a specific point becomes difficult for some vessels, and impossible for other. Since an island is surrounded by water, the options are significantly greater, than say a long continental coastline, or travelling along a river. Being able to understand islands as physical structures, and the historical responses to that physical geography, are just as important to consider as the cultural adaptations developed for living on an island.

Most archaeologies of the Atlantic Caribbean have, upon interrogation, applied the island as a closed laboratory model in analyses of plantation landscapes. Focusing on the exploitative plantation labor model and investigating past lives, archaeologists tend to reduce their scales of analysis to fit within plantation property boundaries, and derive their insights into daily life and practice from within this narrow gaze. While this focus on plantations has been used to great success in understanding the practice of surveillance,<sup>5</sup> patterns of industrialization and labor practices,<sup>6</sup> and tracing cultural resilience and patterns of daily life amongst enslaved populations,<sup>7</sup> among others, these analyses create heuristic islands of these plantations.

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<sup>5</sup> See Armstrong 2011: 88; Armstrong and Kelly 2000; Bates 2015: 117; Delle 1998; 1999; 2011; 2016; Singleton 2015; Waters and Tricarico 2018.

<sup>6</sup> See Armstrong 2011; Clement 1997; Cossin and Hauser 2015; Fox 2016; Hicks 2007; Menard 2005.

<sup>7</sup> See Armstrong 1990; Bates 2016; Delle 2014; Delle et al. 2011; Smith 2005.

Observations are spatially and conceptually restricted to the invisible boundaries, making them immutable and impermeable across time. This makes each plantation analytically isolated from the wider colonial landscape of which they were part (Waters, forthcoming; see also Armstrong 2003; Hauser 2008). This is despite the continuity of the landscape across borders, and the development of cultural practices throughout an island.

Divorcing Antigua from its geographic reality as an island reduces our ability to understand the historical, social, political, and economic pressures people living on the island faced. By considering the unique contingencies faced by the island's population, filtered through its geographic position as an island, I am better able to contextualize the shifting spatial distribution of Antigua's fortifications through a social lens, rather than reduce them to their role as a defensive, military space. This not only reveals the larger structural designs for the island enacted through social policy, but also opens spaces in which to study a broad swath of Antigua's society, including enslaved and free African and African-descendants, poor white families, and the wealthy elite as they occupy and move through plantations and across the landscape in their daily lives. By considering the island holistically, I reduce the potency of the plantation island, and enable the theoretical evaluation of a more mobilized, populated landscape (e.g. Hauser 2008).

### **Local Colonialism, Global Imperialism: a Sliding Scale**

Increasing research has exposed the undeniable truth: that colonialism follows an unusual path, contingent on local geographical, social and temporal contexts. The term colonialism, and the theoretical constructs which burden it have flattened out these local contexts, and demand revisiting (see Cooper 2005: 3-4; see also DeCorse 2001; 2014; Leibmann and Murphy 2010 Stein 2005; Young 2001). Colonialism, as a framework for understanding the modern world, is

pervasive and potent in explaining legacies of inequality, racism and continued exploitation of subaltern populations and “sovereign” nations alike. The broad strength of colonial theory, however, is likewise its inevitable weakness: by casting such a wide interpretive net, localized contexts become de-historicized and nuanced situations painted over with a broad brush, in a place where precise definitions matter.<sup>8</sup> Colonial Antigua in the eighteenth century was a colonial society without an indigenous population, just as much as it had a martial landscape, but without metropolitan oversight. Using Antigua as a case study, I explore the theoretical limits of colonialism, and push for revisiting the concept and its application in archaeology.

Fredrick Cooper (2005: 3-4), critiques contemporary approaches to colonialism theory, observing that, “a significant part of this body of work has taken colonial studies out of the history...treating colonialism abstractly, generically, as something to be juxtaposed with an equally flat vision of European ‘modernity.’” He further states that this approach “obscure[s] the details of colonial history and the experience of people in colonies,” causing “the aspirations and challenges posed by political movements in the colonies over the course of history [to] disappear.” Despite being one of the core areas of archaeological study, Michael Dietler (2010: 15), argues that “colonialism has become one of those ubiquitous concepts in anthropology and history...about which there is a general consensus regarding its importance yet little agreement about its precise definition.” Gil Stein (2005: 2-3), summarizes this issue best, stating categorically that:

there is still no consensus among anthropologists about (1) what colonies are, (2) how and why colonies vary one from another, (3) how colonies function as social, economic,

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<sup>8</sup> One of these overarching themes in the post colonial literature is the explicit focus on nineteenth century imperialistic colonial expansion into places such as Africa and Asia at the behest and force of European nation states and the outcomes of those actions (e.g. Spivak 1988: 287-288; see also Croucher and Weiss 2011). This focus, however, tends to either ignore previous iterations of social relationships, or distills them into useful teleological trajectories in order to better contextualize the post colonial lives in the twentieth and twenty-first century (e.g. Thomas 2013).

and political entities, (4) what colonial relations are like with indigenous host communities, and (5) how ethnic identities are changed in colonial situations.

Indeed, Stein continues, suggesting that to avoid the “semantic baggage” of colonialism, he introduces the term “colonial encounters,” to discuss the complex material interplays between colonists and indigenous populations (2005: 3).

Despite the vagaries of defining colonialism in general, and colonialism in archaeology in particular, there are two general themes. The first is the defining relationship between colonizer and colonized, characterized by the unequal access to power, resources and construction of dominant ideologies, driven, in part, by a powerful metropolitan identity (Croucher and Weiss 2011: 12-13; Dietler 2010: 18-19; Given 2004: 201; Gosden 2004: 24-25; Silliman 2005). The second theme, directly flowing from the first, is the concept of culture contact: a group moving into the territory of an already existing group through the use of coercive force and material goods which partially overwhelm indigenous populations already present. That is not to say that these populations are erased or acculturated, rather, that the material networks whereby cultural practices are expressed are changed, and identities are renegotiated through new systems forcibly layered over existing ones. While this colonizer/colonized dichotomy is most often associated with the relationship between European and indigenous populations, this definition has also been expanded occasionally to include enslaved and coerced populations as well, (Hayes and Cipolla 2015: 5; Silliman 2005), although it remains largely as part of a semantic shift towards inclusive language, rather than thoroughly explored. But what if neither of these qualifications fit a specific historical context?

Seventeenth- and eighteenth-century Antigua, I argue, does not conform to these overarching themes of colonialism as broadly defined in the literature reviewed above, rather, if following Cooper’s (2005) call, it is temporally and geographically unique, and should be

considered through its historically contingent development, rather than from an overarching view of colonialism.<sup>9</sup> This is because Antigua, from its foundation by Englishmen in 1632, was a colony: a “settlement on a distant territory,” whose institutions and elites mirrored those institutions of the home country (Said 1992: 9). However, its precise occupation in its colonial context is specific to the historical trajectories of the people living on the island and negotiating their lives and status within the broader Atlantic World.

#### *Antigua’s Seventeenth- and Eighteenth-Century Colonial Context*<sup>10</sup>

Antigua was a space under informal imperial control. On the surface, the trappings of imperial power, especially the sacrosanctity of the monarchy, maintained strong links to England (and after 1707, Britain),<sup>11</sup> and provided the cultural compass on which Antiguan plantation society was structured. Yet, governance remained a local endeavor, and imperial oversight was merely a

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<sup>9</sup> This argument about Antigua’s uniqueness derives from the historiography of the British Caribbean in general, and the British Leeward Islands in particular, where Antigua is either marginalized in favor of Jamaica or Barbados, or homogenized within the Lesser Antilles colony (see n.10 below). This is not to say that Antigua was not part of the economic, political, and social entanglements of the Atlantic World; Antigua could not exist without the wider economic and social ties between Europe, Africa and the Americas (Thornton 2012). Rather, the distinction I am making here is by focusing in on Antigua as an entity, we can reframe how power was viewed and negotiated in this particular island colony.

<sup>10</sup> The historiography of the British Caribbean draw most of the materials from Jamaica and Barbados, while Antigua and the Leeward Islands have been largely understudied (Barber 2011b; Zacek 2010). To some degree, this is due to accessibility: Jamaica and Barbados have organized archives and, due to their respectively larger sizes, a larger quantity of materials to study. In the last decade, however, the Leeward Islands have seen a renewed interest as researchers search for new or understudied areas (e.g. Barber 2011a; 2011b; Dator 2015; Zacek 2007; 2009).

<sup>11</sup> There is considerable historical interest around the different national identities surrounding the white communities in the Caribbean, and the different categories which were used internally to differentiate them. The general trajectory was that initially the colony was dominated by an explicitly English transplantation (e.g. Gragg 2003; Shaw 2013), whereby non-English whites were considered socially less than their English counterparts; especially the catholic Irish. Others, however, note that throughout the eighteenth century, with increasing numbers of Scots arriving in the Caribbean after the Acts of Union in 1707, Englishness becomes slowly transformed into a more homogenous British identity, especially as the planter class diversified and conflict developed along national lines. That is not to say that there were no social conflicts, and anti-Catholic (Irish) biases were still pervasive in the Leeward Islands (e.g. O’Shaunessy 2000; Zacek 2010). For the purposes of this research, the British/English identifiers strictly define the political affiliation between Antigua and the British monarchy.

formality. The island was settled by a group of Englishmen in 1632 from neighboring St. Kitts, but fell under the jurisdiction of Barbados (Barber 2007; Dyde 2000: 29). Neither Barbados, nor St. Kitts were metropolitan colonies, rather they were vague land grants given to ennobled men, over which their power was fairly absolute (Crawley 2015: 63; Sarson 2005: 191). When Antigua and the remaining Leeward Islands became their own recognized federated government, they broke away from the proprietary government in Barbados. The government's allegiance was to the Crown and not to the Kingdom of England (and later Great Britain). Between the checks and balances of the British governance system, the haphazard way in which the English, and later British funded and supported settlement ventures, and the weakened monarchies after the English Civil War (1642-1651) (Bridenbaugh and Bridenbaugh 1972), Antigua's elites were able to carve out a remarkable amount of local autonomy from Britain. Britain, until the second half of the eighteenth century, was content to reap the profits from the sugar trade, and even devote some resources to protecting those islands. Britain set the foreign policy: if it was at war with another European nation, it expected the individuals living in the colonies to injure that enemy as much as possible through privateering and invasion.

In references to Britain, and the relationships between Britain and Antigua, the Antiguan government continually referred to Britain, or more specifically England, as "home". While used considerably more often in the late seventeenth and early eighteenth century, especially when referring to the transmission of official correspondence, the term was still used occasionally in the 1760s and the period leading up to the American Revolution (NAAB 327: 16 May 1765).<sup>12</sup> By using the word "home" to directly reference Britain, Antiguan elites seem to

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<sup>12</sup> For example, a budget outlined in 1717, one of the line items was £200 for "Solicitations at Home," meaning representations by the island's agent to the King and the Privy Council (CO 9/4: 15 August 1717).



acknowledge that their presence on Antigua is only temporary, reifying and solidifying their identities as British subjects (O'Shaughnessy 2000; Sarson 2005; Shaw 2013; Sheridan 1961; Zacek 2010). Gragg (2003) explicitly refers to the strength of these cultural links, entitling his book *Englishman Transplanted* as a way to document the lengths at which the settler elites sought to replicate their lives in a new setting. The use of the term, however, belies the relationship between metropolitan London and colonial Antigua. Britain's constitutional monarchy, especially after the Restoration of Charles II, offered checks on the Crown by giving Parliament the power of the purse. The Crown needed Parliament to raise taxes and pay for public projects, including the conduct of warfare. The result of this relationship was the creation of a more decentralized bureaucracy, with no governmental department growing too powerful, but which also largely shielded the Antiguan legislature from direct monarchical oversight and meddling (Dull 2009: 180-185; Sarson 2005; 190-194; Satsuma 2013). These (somewhat) coequal branches of power were meant to circumscribe the worst impulses of a reigning monarch by devolving some of the power away from the Crown.

The British Constitutional Monarchy is often heralded as one of the reasons for Britain's successes in the eighteenth and nineteenth centuries (e.g. Loh 2000). Antiguan plantation elites were cognizant of this separation of powers. They saw it in the Irish Establishment: a parallel governmental structure between the Crown and an Irish Parliament, where the English Parliament had no binding powers over Ireland, and with increased agitation across the seventeenth and eighteenth century by the Irish House of Lords which carved a deliberate policy which subverted British Parliamentary power (Crawley 2015: 48-51, 167; Connolly 2008: especially 208). This policy, it should be noted, explicitly recognized the supremacy of the British monarch, while giving wide latitude for enfranchised Irish nobles to enact and enforce

their own legislative and legal agendas. Other parallel colonial structures existed within the Atlantic World, including the other British Sugar Islands in Barbados and Jamaica, as well as many of the North American colonies (Roper and van Ruymbeke 2007: 7-8, 12). Each of these colonies established a local governing structure, under the overview of a royally appointed governor (Webb 1979; 2013). Their direct allegiance was to the Crown—the reigning monarch—and not to the Parliament sitting in Westminster (Crowley 2015: 49-50; Sarson 2005).<sup>13</sup> In this way, the Antiguan elites modelled their own powers on the internal English structure and therefore sought to rival, rather than divest power from Parliament. They established laws, regulated trade, and maintained royal courts, under the consent of the monarch and his or her Privy Council. They created, essentially, a direct patron relationship with the monarchy, rather than with the metropolitan government in Britain. This direct relationship, mirroring the governmental structures of the “metropolitan” government, places Antigua—and other colonial entities—outside of the direct colonial framework often associated with the Atlantic World.

Michael Doyle (1986: 37-38), identifies the complexity in these colonial relationships, suggesting that “Effective control of peripheral sovereignty need not require a colonial governor with all the trappings of formal imperialism,” pointing out correctly that, “if enough of the articulation of interests in a peripheral state can be influenced, and the aggregation of coalitions will be controlled; and if aggregation is thoroughly shaped, sovereign decisions will be controlled.” This is what Doyle calls “informal imperial control.” Similarly, through highlighting a different structural colonial relationship, Shannon Lee Dawdy (2008: 4-5), uses

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<sup>13</sup> This remains true during the study period. During the Interregnum Antigua was governed via the Parliamentary government in Barbados, whose local representative was Christopher Keynell, representing the only period where the governor was beholden to Parliament, rather than the Crown (Dyde 2000).

French New Orleans to explore the process as *rogue colonialism*. Dawdy's argument focuses on the direct, strict hierarchical, royal input that the French government had in establishing New Orleans. However, through distance and neglect from the metropole, and the confluence of myriad cultural, social and racial influences permeating this French outpost, people in New Orleans created spaces in which they could establish new relationships and access new rungs of the strict hierarchical structure, circumventing long established legal and social precedent set in France. Key to the idea of being rogue, however, is the juxtaposition of the rigid structure in France, and the inaccessibility that those barriers posed to influx of new ideas and new institutions of local invention, where "legitimacy and legality were of little relevance to daily operations, and the boundary between banditry and statehood was difficult to draw," (Dawdy 2008: 5). New Orleans was established with the intention of being a formal, miniaturized French society by those at the top of the French hierarchy. Instead, the inhabitants of New Orleans, faced with new circumstances, created a much more racially and socially fluid society, rebelling against the very structures which set them in place, negotiating a new, hybridized path. Both of these concepts underlie the ties between Antigua's government the metropolitan power vested in the Crown in London: a relationship predicated on shared cultural, historical, linguistic, and perhaps most importantly, economic backgrounds, with the luxury of distance and separation allowing for creative application and interpretation of common goals.

Illustrating this informal colonial relationship best in Antigua is the agreement reached with the British Crown in 1664 whereby a 4.5% duty was imposed on all exports from the islands. This duty was intended to offset some of the public costs associated with maintaining public infrastructure, including defense. While some of this money seems to have been given back to the islands, it was never enough to maintain the high cost of defense, however, it did

provide the necessary framework for maintaining autonomy from the Crown since this was seen as fulfilling their obligations of fealty to the Crown from the very beginning of the colony's existence and allowed the island elites the necessary legal framework to maintain their operations (Crawley 2015: 64-65; O'Shaughnessy 1996: 108). Attempts were made for more direct control over the colonial ventures, and indeed, succeeding in several cases in North America: most notably in Virginia. In the Caribbean, the Duke of Marlborough pushed his protégées into governorships in an attempt to exert greater control during Queen Anne's reign, however, his subsequent fall from favor and the elevation of the House of Hannover in 1714 reduced this direct pressure, and colonies like Antigua were largely left to their own devices for the next 50 years (Webb 1979; 2013). It was only the financial aftermath of the Seven Years War (1756-1763), that George III was politically established enough to make another attempt at exerting new direct pressure on the colonial possessions (e.g. NAAB 327: 25 August 1768).

Except for the brief pressure placed on Antigua between 1704 and 1710, political power resided in the local government.<sup>14</sup> When it came to organizing defenses, raising the capital for fortification projects, and maintaining soldiers and sailors in Antigua, the local government was in control. The right to raise revenue for the maintenance of colonial infrastructure beyond the 4.5% due to the Crown, was vested locally in the Antiguan government (Barber 2007: 190; Williamson 1926: 214-215). The results are a relationship more akin to that of a client kingdom or federation: a series of smaller entities with a shared external policy and cultural identity, however, implementation of internal structures is left largely to the local authorities. The Antiguan government coopted the aesthetics of imperial military power in order to "Enter upon

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<sup>14</sup> Whereas Marlborough's experiment at direct imperial control through placing his underlings largely failed because of his loss of favor with Queen Anne, Antigua in particular reacted poorly to this approach, assassinating Governor Daniel Parke in 1710, making him the only governor to be so rejected by the colonial population (Webb 2013; Zacek 2010).

such Methods as are Necessary for the Security and Defense of the Island,” (NAAB 324: 26 August 1740). They were, however, enacting these decisions without the appropriate background or practice, and using these institutions to reify and strengthen the position of local elites.<sup>15</sup> In essence, the Antiguan landscape may have outwardly looked like it was participating in a grand imperial design, however, it was completely dictated locally, in service to local considerations.

The aftermath of the Seven Years War (1756-1763) strained this century long relationship between the colony and the metropole. Plagued with debts and the relative internal peace that came with a stable succession by the third King George, the government wanted to get more directly involved in the administration and control over British colonies. A costly foreign policy resulting in several wars with other European powers fought in the New World opened up new ideas about revenue streams and taxation. While the traditional rate of 4.5% duty on exports belonged to the Crown, much of this money was driven back into the colonial administration, especially covering part of the upkeeps of the Royal Governors, rather than as a lucrative source of funds for the Crown (Barber 2007: 190; Higham 1921: 22-23).<sup>16</sup> Looking to recoup some of

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<sup>15</sup> Perhaps the most potent symbol of imperial power, the Regiment (38<sup>th</sup> Regiment of Foot) stationed in Antigua between 1707 and 1764, was continuously stripped of its symbolic potency by Antiguan plantation elites usurping command, and by acquiring their own commissions. Daniel Parke, using his position as Commander in Chief, seized control of the regiment and used it to enforce his own policies. After his assassination, Antiguan gentlemen continued to hold commissions in the Regiment, including George Lucas, who was a Major in the regiment, a Colonel in the Antiguan militia, a member of the Antigua Council, and eventually Lieutenant Governor of Antigua in 1747 (Oliver 1899: 200). This trajectory changes with the removal of the 38<sup>th</sup> Regiment in 1764, and the rotation of new Regiments under their own officers, garrisoned for shorter durations.

<sup>16</sup> The royally appointed governor expected two streams of income: one from the Crown, and an additional subsistence to cover the living expenses while on station. The Leeward Islands were notorious for being one of the lowest paid positions and several successive governors fought with the Antiguan government for a larger subsistence (Bourne 1951: 88-89). The Antiguan Government generally voted a smaller than requested additional allowance, much to the chagrin of the governors, leading to complaints. Governor John Hart (1721-1728), inflated census numbers sent to the Board of Trade and Plantation to support his argument that he deserved a larger stipend from the government (*CSPWI Volume 41, 1734-1735*, pp. 199-242). Governor William Woodley (1768-1771) was only voted an additional 1000 pounds

the losses, the Crown started pushing imperialistic policies: new taxes such as the Stamp Act, and more direct control over the affairs of the individual colonies.<sup>17</sup> This includes, in the case of the Leeward Islands, an order to make the Powder Tax permanent, and that reports of the quantities of gunpowder stored in the public magazines of each island be forwarded to Board of Trade and Plantation, as well as the Board of Ordnance every six months (NAAB 327: 14 July 1768).<sup>18</sup>

In terms of defining national interests through defense policies, this represents a more global strategical thought process by the metropole, suggesting that the gunpowder stored in these semi-autonomous colonies was a tactical resource to be exploited by the British military, rather than a local defense measure. This signals a turn in both the relationship between Antigua and Britain, which was initially resisted by the Antiguan government (NAAB 327: 25 August 1768), but was ultimately succumbed to because of the high debts incurred by the island government during the American Revolution. Indeed, whereas in previous conflicts, the defense strategy rested with the Antiguan legislature in conjunction with the Governor General, the

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Antigua money, the same sum which had been paid out to every governor in the eighteenth century despite changes in inflation (NAAB 327: 19 April 1768). Daniel Parke (1706-1710), was assassinated by a popular uprising for a variety of slights, including his constant attempt to get more money out of the Antiguan government (Bourne 1951: 89; Zacek 2010).

<sup>17</sup> The Antiguan government sent an appeal to the Crown contesting the Stamp Act asking for relief and arguing that since the law came from Parliament, it was not in force in Antigua (NAAB 327: 19 December 1765).

<sup>18</sup> This comes from the 78<sup>th</sup> Instruction to the new Governor Woodley from King George III. The Assembly rightly points out that this instruction was part of the docket of the previous governor, Sir George Thomas, and contained ambiguous language, casting the instruction as a request, rather than as an order. The Assembly lays out a series of local reasons why the Powder Act should not be extended in perpetuity, including that the magazines were already so full that in previous years, gunpowder had to be sold off, and that the Crown did not provide enough cannon to actually merit the amount of gunpowder a rewriting of the Powder Act brings with it. The attempted enforcement of this Instruction by Governor Woodley marks the beginning of the end of the localism of the British colonial system in Antigua, heralding a broader, more global perspective the by the British Crown in its attempt to exert greater centralized control and craft a worldwide political and military strategy of dominance: in other words, the beginning of imperialism.

Antiguan government sought to actively strategize defense policy with military commanders like Admiral Samuel Barrington, sacrificing their autonomy for greater metropolitan control in the affairs of the island (NAAB 329: 24 September 1778). In the rest of the client colonies, the Crown was able to slowly exert more control, eventually replacing the semi-autonomous colonial network of traditional proprietary and company governments with more direct oversight. The pattern was established early in territories to be administered directly included those captured in the eighteenth century, like Dominica, St. Vincent, Trinidad, and Tobago (O'Shaughnessy 2000). Rather than giving them over to local governments, the Crown directly organized the entire government, limiting the power of local plantation owners and other elites.

In seventeenth and eighteenth century Antigua, European and creole white elites leveraged their local power to shape the existing landscape around them to suit their needs best as a nested, but autonomous power structure within the Atlantic World. Specifically, these planters operated (and shaped) the emerging global markets driven by extractive agro-industries within the context, and indeed as subjects of the British Crown, yet, employed considerable independence to shape their own situations.<sup>19</sup> The island's defenses are one of the most visible manifestations of this independence. As public works projects, constructed to the specifications of the island's legislators, and placed on the landscape, these defensive positions were used to suit the needs of the small cadre of planters who held legislative positions; the greater strategic

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<sup>19</sup> This is in direct contrast to Trevor Brunard's (2012: 56) assertion that, "the dreadful demographic regime of the West Indies meant that sugar planters' power relied on strong support from the crown," to maintain control over their expansive wealth rooted in sugar. I argue here that the distribution of power was more balanced, with less reliance on the crown for military (read: violent) power, and thereby reducing their reliance on the crown as the final arbiter of their destiny. For a counterpoint, see the arguments around smuggling and the explicit desire to limit the power of the crown to impose sanctions on planters contravening the Navigation Acts (Hauser and Kelly 2011). A famous example includes Horatio Nelson, as a young post-captain stationed in Antigua in the 1780s, was sued for his role, and threatened with bodily harm, for attempting to enforce the Navigation Acts (Dyde 2000: 97-99).

picture held by the crown, on the other hand, was not considered in this manifestation. This is the martial landscape: an aesthetically militarized landscape, but without the potency, planning or centralization of a professionalized military structure.

### ***Tableau Vivant: Staging the Martial Landscape***

It is within these social, economic, and political contexts that Antigua's fortifications were planned, constructed and maintained. Fortifications and military sites are fetishized as the physical manifestations of colonial power and monuments glorifying violent oppression (Dawdy 2010, see also G. Parker 2014). As interpretations of the past are couched in the ideologies of the present, as imposing architecture to modern eyes, military sites are reduced to a one dimensional, uncomplicated proxy for power, violence, coercion, oppression, and often paradoxically, revered as an integral part of the landscape. The emphasis of militaries on uniformity and discipline coupled with their violent intent drive this singular perspective (e.g. Wilson 2008). Epistemologically, this creates a teleological assumption homogenizing the populations occupying these sites, and reducing their role to a blunt instrument of elite power. Recently, however, there are new critiques in archaeology (DeCorse 2001; DeCorse and Beier 2018; Johnson 2002), and Military History (Black 2004), arguing that these sites should rather be explored as communities of individuals, each with myriad identities reflected in race, gender, ethnicity, age, and social status. Indeed, the departure point for Beier and DeCorse (2018: 2) is that fortifications are "loci of heterogenous populations, unequally visible in historical narratives," with populations including more non-military individuals than the expected soldiers, including women, children, enslaved Africans, civilian artificers and contractors, and so forth. In Antigua's case, this approach helps capture the diverse communities living at these sites.



To date, the treatment of Antigua's military history has privileged the formal military institutions—the Royal Army and Royal Navy—as having been responsible for the primary defensive structures protecting Antigua, with the local government playing a (at best) supplementary role (e.g. Buckley 1998; Dyde 2000; Nicholson 1994). Drawn in by the military aesthetic conveyed in Antigua's fortifications, this dominant narrative has gone so far as to populate Antigua's many fortifications only with soldiers, thereby reinforcing an imperial narrative of belonging to a greater, coordinated, British Empire. The following revisits the role of the formal military structures on Antigua, explicitly reducing them to a passive role in the martial landscape, buffeted between the will of the Antiguan legislative elites and the desire of the imperial structures thousands of miles away in London. In reducing their activity within the martial landscape, I demonstrate how local politics dictated defense policy in an active process of selecting which parts of the island were most valuable, and thus highlighting which parts of the island were politically, socially and economically neglected.

The Royal Army and Royal Naval establishments only played specialized roles in the spaces afforded them until the American Revolution. Previous interpretations of Antigua's fortifications centralize the imperial military forces as key components of the defense of the island (Buckley 1998; Duffy 1987; Dyde 2000; Metzgen and Graham 2007; Nicholson 1994; Pares 1936). Here, they privilege the subservient colonial model where Antigua operated as a metropolitan flange: operating as merely a part in a much larger, cohesive imperial structure. This interpretation, while certainly more applicable after the American Revolution, does not represent the relationship between the Antiguan government, the British Crown, and its role in the Atlantic World well for the seventeenth and most of the eighteenth centuries. The role of the military in Antigua, while shifting somewhat between the first Regimentals arriving in 1695 and

ceding control over fortifications, land, and political influence after the American Revolution, was largely passive. Since previous interpretations do not reflect this passivity, I have removed the term military from the description of Antigua's fortification landscape, replacing it with martial: a term which evokes the formal use of force, however, does not necessarily carry the same assumptions about the correlation between the term military and the formal imperial structures of the Royal Army and Navy.

### *The Royal Army in Antigua*

The metropolitan military did have a presence on Antigua as early as 1695 (NAAB 314: 11 March 1795/6; 21 March 1796), and it was continuously garrisoned by Regular units after that. Initially regiments arrived on their way to attacking other islands, or, more permanently, to serve as a bolstering force for the militia in Antigua. In return for their presence, the Antiguan government offered an "Additional Substance," extra pay provisions and quarters for the soldiers stationed on the island (e.g. CO 8/3: 95; CO 8/3: 108). This included, in 1735:

...to Supply the Forces in this Island with wholesome Bread at Sixteen Shillings per Cent good Irish Beef at forty five Shillings per Barril at which prices Each private Man may weekly have seven pounds of bread and fourteen pounds of Beef with Pork Butter and Oatmeal at proportional rates for above Eighteen pence this moneyless than his Subsistence for that time amounts to. These terms being accepted the Troops here will receive in Exchange for the Sterling money fifteen per Cent more than they have ever yet done and the private Soldier be in a great degree reliev'd from the Starving and miserable As Condition We are to Sensible they Languish under at this time, & which upon Strict Enquiry, as we apprehend would not appear to arise from a Dearness of provisions only. (NAAB 323: 2 January 1734/5)

The Antiguan government brokered a deal with the Crown, requiring that a Regiment consisting of 400 effectives be on the island, in return for the Antiguan government defraying part of the cost of the deployment.<sup>20</sup> Additionally, the Antiguan government built a barracks on Rat Island

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<sup>20</sup> The Antiguan government refused to pay the additional subsistence on a number of occasions because the established 400 effective men were not met, and only restored the payments after the correct number arrived. This happened after the Slave Conspiracy in 1736/37, forcing Governor William Mathew to

in the 1740s, a rock in the middle of St. John's Harbour, to house the men, receiving one of the few grants from the Crown to build fortifications on the island.<sup>21</sup> By 1755, a new barracks complex was built east of St. Johns as a permanent home for the garrisoning regiment; a home outside of which the soldiers had no additional duties unless the island was imminently threatened.<sup>22</sup>

The earliest regimentals served "dayly Duty...in Town and in our Forts," to augment the defenses of the island (NAAB 319: 8 November 1715). In the 8 November 1715 return, we see members of Alexander's Regiment (38<sup>th</sup>)<sup>23</sup> scattered around the island, with:

On the Town Guard-18 private men, 1 Serjeant, 1 Corporal, 1 Drum and an Officer  
On Monks hill Twelve private men, 1 Serjeant, 1 Corporal, 1 Drum and an Officer  
On St. Jame Fort 10 private men, 1 Serjeant, 1 Corporal  
On the Road Platform 4 private men, 1 Serjeant, 1 Corporal  
In all 44 private men, 4 Serjeants, 4 Corporals, Two Drum and two Officers

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recall units stationed in Montserrat (Pares 1936: 258-59), and again in 1775 while part of the 60<sup>th</sup> Royal American Regiment was campaigning on St. Vincent (NAAB 328: 26 January 1775). Interestingly, there are instances where too many new recruits arrived on the island to bring up the total establishment of the 68<sup>th</sup> Regiment in 1769, and the Legislature refused to pay for any soldiers above the established 400 men, complaining that, "Recruits should be brought to this Island and afterwards disbanded, who are Men of so infamous a Character that we must be content, on account of our own Security to be at the Expence of sending them off this Island," (NAAB 327: 18 April 1769). The Antiguan elites seem to have inherited the same distaste for soldiers and a standing army which was pervasive in Britain (Buckley 1998: 50-51). This simultaneous clamor for troops and disdain for their presence led soldiers to be mistreated by the Antiguan government across the eighteenth century.

<sup>21</sup> Rat Island may have already had a small battery along the shoreline as early as 1672, aimed over the entrance of St. Johns Harbour (Oliver 1899: xlix). The barracks were started with a £2000 Sterling grant (NAAB 324: 30 October 1742) to "build Pavilions and Barracks for Eight Officers and Two hundred & forty men of His Majestys Regular Troops in this Island," (NAAB 324: 17 June 1740), despite objections to the location by the commanding officers present on the island. The remainder of the men were stationed at Fort James, until new barracks were built to the west of the town in 1755 (Nicholson 1994: 13).

<sup>22</sup> Note: this changes a little during the American Revolution (see Chapter VII), and is no longer the case after 1790 when soldiers were used around the island once again.

<sup>23</sup> The 38<sup>th</sup> Regiment was posted to Antigua from 1707 to 1764; it is the longest continuous overseas posting for any British military unit. In 1936, the successor Regiment, the South Staffordshire Regiment, was granted the Holland Patch, a piece of sackcloth to commemorate the abhorrent conditions the unit suffered while stationed in Antigua, reduced to wearing Holland cloth after their uniforms fell apart (Buckley 1998: 50; Vale 1969).

The Lieutenant Governor, Edward Byam, proposed that those men be paid extra for their duties at those fortifications. The Assembly balked, rejecting the proposal. At the very next meeting, the Council reversed course, recommending that, “for the future no soldiers be Admitted as Matross on any of the Forts of this Island” (NAAB 319: 17 November 1715). After this point, the only soldiers garrisoned in a fortification were a single company at Fort James, “in time of Alarm the Kings Troops March out of the Fort and it is Garrisoned by Sailors from the Ships in the Harbour,” (NAAB 15 January 1745).

There is an archival and archaeological absences of military personnel stationed on Antigua’s fortifications between 1715 and the American Revolution (Waters et al. 2016). The purpose of the military from the Antiguan’s perspective, was to provide additional men in case of an insurrection. From the imperial perspective, the units in the Leeward Islands represented a strategic resource, deployable to any of the nearby islands quickly in case of war, and providing a modicum of deterrent.<sup>24</sup> This ambition, however, was constantly undermined by absentee officers who refused to deploy with their soldiers, and in this vacuum, Antiguan elites stepped in, usurping control of the regiment for local purposes. Daniel Parke deposed Colonel Jones, the commanding officer of his own regiment in 1708, claiming that as governor his prerogative extended to command of all military resources in the islands under his command (Buckley 1998; Webb 2013). Another Antiguan planter, George Lucas, was a commissioned Major in the same local regiment several years later, holding that position concurrent with his role as Speaker of the

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<sup>24</sup> Webb (1979; 2013), terms this the garrison government model. He sees this as particularly true at the beginning of the eighteenth century as most of the Royal Governors appointed to colonial posts were drawn from the Duke of Marlborough’s close cadre of officers who served him in Europe. These men were explicitly chosen for their military abilities and seen as vital for maintaining the interests of the Crown in the Western Hemisphere. Parke, an aide-de-camp to Marlborough, was one of these governors. This seems to have been an attempt at pushing for greater direct control by the metropolitan government, but politics and poor health kept Marlborough from pushing his agenda through and this aggressive push seems to have been placed on hold for the next half century.

Assembly, Treasurer, member of the Council, and eventually Lieutenant Governor of Antigua (Oliver 1899: 200). Valentine Morris, another prominent Antiguan planter with three major plantations in Antigua, and after 1740, absentee landlord, held a commission in the local regiment as early as 1707, rapidly reaching the rank of Lieutenant Colonel in the Regiment in 1713 as his political and economic fortunes grew. His role as an officer coincided with his position on the Antigua Council, and, according to Ivor Waters, Morris and his fellow planters were the “real rulers of Antigua,” (Oliver 1899: 272-274; I. Waters 1964: 2). The impact of this direct interference served to further develop the local autonomous structure through subverting the symbols of imperial control for the use of the Antiguan elites to reinforce their local mission. For the soldiers, this meant that they were constantly neglected, starved and succumbing to high mortality rates (Vale 1969; see also Charters 2014; Crewe 1993; McNiell 2010; Smelser 1955).<sup>25</sup>

Indeed, beyond the martial aesthetic appropriated by the Antigua elite, enlisted soldiers were viewed with the same cultural apprehension and disdain as they were in Britain (Buckley 1998: 47-50; McCormick 2015; Webb 1979; 2013). As an artifact of limited monarchical power, the English in particular were skeptical of a large standing army, keeping peacetime troop levels low in order to prevent it being used against the populace (Black 2006). Popular views of the British Regular as a part of the lowest rung of society, pulled out of the jails to serve abroad, remained pervasive in Antigua.<sup>26</sup> In one particularly egregious instance, the 68<sup>th</sup> Regiment had

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<sup>25</sup> This is not to say that all planters were negligent of the needs of the garrison. George Lucas, for instance, provided the sole dissenting voice against the plan to build the first barracks on Rat Island. In a memorial to the Antigua Assembly lambasting the choice to use Rat Island, Lucas claimed that it was in an unhealthy location and would be detrimental to the lives of the soldiers stationed there (NAAB 324: 17 June 1740). His objections were overruled in a detailed, 2,500-word response, and the barracks were built there (NAAB 324: 25 June 1740). Lucas’ estimation that the barracks would be unhealthy proved correct, and a new barracks was built on the far side of town (CO 9/20: 6 September 1753).

<sup>26</sup> Buckley (1998: 66-67) describes the Antiguan governments treatment of the Regular soldiers as “shameful.” One of the reasons why the Regiment was not disbanded after Queen Anne’s War as it was supposed to was the high levels of local debts the regimental officers ran up trying to keep their soldiers

recruited more men than necessary to fill their ranks. Rather than welcoming these additional men to strengthen Antigua's defenses, the legislature quickly voted money to send these men away from the island, because they feared, "turning of the said People loose upon the Country will in probability to attend with bad consequence to the Inhabitants," (NAAB 327: 18 April 1769). This was under the establishment of 400 permanently garrisoned men agreed to in the 1730s. Governor Shirley, writing during the American Revolution a decade later, noted that even with the rapidly expanding garrison in Antigua, there were not enough men between the regular units and militia to adequately defend the dockyard at English Harbour, let alone the entire island, should the French attack. He glumly writes that the main body of troops would have to retreat into Monk's Hill and, "we should be obliged from the weakness of the latter to be spectators to the destruction of the Dock Yard," (CO 9/41: 22 August 1782). This observation encapsulates the tokenism which the Royal Army played in the defense policies of Antigua's elites: they appreciated the martial trappings which came with gaining military rank; yet, this aesthetic remained impotent in affecting defense, borne from political and social needs, rather than strategic or tactical considerations.

*The Royal Navy and the Antiguan Naval Dockyard at English Harbour*

Whereas the British Army was an object of cultural trepidation, to the British, the Royal Navy was a source of national pride (Black 2006; Buckley 1998: 50-51; Dull 2009; Roger 1986; Satsuma 2013). The defense of the British Isles and maintenance of mercantile connections to the plantations rested on the fleet. For Antigua, a small island reliant on external trade, attracting permanently stationed warships was important for protecting the island. As early as 1666, the

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alive. The soldiers could not be released from their service until the debts to the local merchants were paid in full, and the metropolitan government found it cheaper to just leave them where they were and work out a cost sharing agreement with the Antiguan government instead (Vale 1969).

Antiguan government was asking for “Five or six lusty frigates” to help protect the island (CSPWI: 6 June 1666). Throughout the seventeenth and eighteenth century, privateering caused severe hardships for Antigua, which was reliant on provisions coming from North America and Ireland to feed its enslaved population (CO 9/22: 6 July 1757). Cut off from these shipment, Antigua faced famine. The presence of naval vessels to convoy merchant vessels into the island and deter attacks from privateers was a requirement for survival.

Hurricanes presented a major obstacle for shipping, including warships. Vessels would disappear between July and November each year, sailing to North America or back to Europe to avoid being caught by a storm (Mulcahy 2006).<sup>27</sup> The earliest permanent naval infrastructure on Antigua was invested by Act in 1725, granting the Crown about twenty acres of land “for careening and fitting such Ships of War belonging to the Crown of *Great Britain*, as shall from Time to Time come into said Harbour,” and a small wharf was subsequently erected (CO 8/5: 49-50, emphasis in the original).<sup>28</sup> While legally Crown land, the land came under the jurisdiction of the Governor of the Leeward Islands (and Lieutenant Governor of Antigua in the Governor’s absence), and thus, the money to build and maintain the early Dockyard infrastructure came from the Antiguan government, and not from the Navy. In a joint Committee report on the construction progress at the Dockyard, the members conclude, “That English Harbour Appears Daily to be of Greater Consequence to this Island, and to Deserve the utmost & Speediest Regard of our Legislature,” after listing 10 concrete infrastructure improvements at the Dockyard to be debated and paid for by the Antiguan Government (NAAB

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<sup>27</sup> In an analysis of civilian shipping recorded as arriving on Antigua between January 1784 and December 1787 shows a marked decrease in the absolute number and total and average tonnage arriving in the hurricane months of August and September (CO 10/2).

<sup>28</sup> There are several stories about using English Harbour as a hurricane hole prior to the construction of the wharf there in 1726 (Weaver 2002).

323: 11 November 1735). The Navy, while using the facilities, refused to pay for material improvements, going so far as to lead an inquiry into the conduct of Commander Knowles in 1745, admonishing him for Naval resources he spent on expanding Fort Berkley (Nicholson 1992: 17-18). When asked to do the same thing in 1755, Commodore Pye insisted that he did not have the authority to repair the fortifications around English Harbour (CO 9/22: 11 July 1755). Despite the Act authorizing the land to be vested in the Crown in 1725, disputes over the ownership, or more specifically over who was paying for the expansion, continued throughout the Seven Years War, with the Antiguan government still being asked by the Navy to provide labor and repair infrastructure at the expense of the island (CO 9/24: 5 October 1758).<sup>29</sup>

The Antiguan government saw the improvements and maintenance of the Royal Navy Dockyard in Antigua as a key part of maintaining the defense of Antigua, the rest of the Leeward Islands, and indeed, the entire Caribbean (Ward 2011). In a debate in how to properly prepare for an impending war, the Assembly sent a message to the Council, stating: “English Harbour is without doubt the place of most Importance for the Security of His Majesty’s Ships of War, and consequently for the preservation of the British Navigation and Commerce to those Islands and Jamaica,” (CO 9/22: 2 April 1755). The importance of having a naval presence on the island to the plantation elite cannot be understated. In the first years of the Seven Years War, over 150 merchant vessels were sized by French Privateers, cutting off the island, and threatening an artificial famine, leading the Antiguan government to directly appeal for the removal of several naval commanders including Admiral Vernon (1746) and Admiral Frankland (1757), for their negligence in providing naval coverage for Antigua’s shipping (NAAB 324: 1 May 1746; CO

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<sup>29</sup> The Antiguan government continued to maintain all of the fortifications around the Dockyard including Fort Berkley, the Masked Battery and the Horseshoe Battery, as well as the Cistern Complex, and undertook a dredging project during the Seven Years War (CO 9/25: 30 April 1761).



9/22: 6 July 1757; for additional complaints related to the Navy's inability to protect the island see CO 9/2: 18 May 1713). Indeed, according to the Antiguan government, Admiral Frankland had the audacity not only to propose that Antigua build and fit out its own naval vessel for the protection of their trade, rather than use the Royal Navy to do so (CO 9/22: 25 October 1756), but also stated his opposition to the Navy using the Dockyard at English Harbour. The Antiguan government, fearful that Admiral Frankland's assessment would sway the Admiralty to expand their facilities in Jamaica and persuade the Crown to keep Martinique and transfer the Naval base to that island, galvanized a transatlantic response, petitioning the King and Lords of the Admiralty directly for the removal of the Admiral and the maintaining of English Harbour as the premier naval base in the region (CO 9/22: 27 January 1757; CO 9/25: 4 May 1762). Both campaigns were successful: Frankland was replaced and Martinique was returned to France at the end of the war.

These examples illustrate two points. First, a naval presence was desired in order for the island to keep its shipping lanes open. Privateers devastated the local trade during war, and the presence of a permanent naval force positioned correctly could protect merchant vessels arriving at Antigua, or even passing through. While the strength of this argument is questionable, local superiority mitigated some effects, but the positioning of naval vessels was at the command of the Leeward Island Station commander who was stationed more often than not in Barbados and the presence of naval ships seems to have only lessened privateering, rather than eradicating the threat, the Antiguan government wielded their position and the "key" to the Caribbean to try and leverage war materials and affect personnel changes in London. They were somewhat successful at the latter, successfully protesting several commanders and having them replaced based on their inability to stop the privations by privateers. However, their attempts to leverage the capital

investments poured into English Harbour into grants or loans of money and military stores—especially artillery for the fortifications—generally went nowhere.

Second, the Dockyard was a local venture undertaken by and paid for through the Antiguan government and locally raised taxes. Much like the Regulars garrisoned in St. John's, the naval presence was lured by the strategic possibilities afforded by having a place to maintain vessels year-round, rather than sending vessels away during hurricane season (Weaver 2002). To suggest that this was part of a grand imperial strategy laid out by the Georgian Crown in the eighteenth century, however, is an overstatement. While long term considerations were being made by Pitt and other metropolitan politicians, the ability to coordinate over vast distances was only being tested by the Seven Years War, and a comprehensive global strategy galvanized by imperial ambition was a product of the French Revolutionary and Napoleonic Wars (Robson 2016). For Antigua, the calculus was purely local: the presence of navy vessels added to the economic security of the island in protecting the vulnerable shipping routes. Additionally, in the Antiguan elite's eyes, it bolstered their profile with the Crown and Admiralty, who they expected to act in Antigua's best interest over the other islands to maintain access to the Dockyard facilities. The byproduct of having shore bound crews and additional emergency ordnance while a vessel was careening was merely an additional benefit, although not necessarily one which was relied upon. In reality, the Antiguan government saw the Dockyard as a political and economic gain, rather than a military one, and treated their position accordingly.

Perhaps the most telling aspect that the Antiguan government viewed the Dockyard as a political benefit, rather than a military asset, is the way the Dockyard was integrated into the martial landscape in general, and specifically its location within the islands fortification network; just as they viewed the island's fortifications. Located on the southernmost tip of the island,

English Harbour is geographically secluded from the fertile northern two thirds of the island, and physically ringed in by the remains of a volcanic caldera. Ships careening are incredibly vulnerable, so English Harbour itself was fortified with several batteries by the Antiguan government, including Fort Berkley (Chapter 2). The concentration of fortifications, along with steep cliff faces and a narrow harbor entrance against the wind, made English Harbour particularly difficult to attack. Yet, the coastlines to the east and west of English Harbour were under protected: these areas of the island were considered militarily vulnerable, but economically insignificant. Poor white farmers and smaller sugar plantations with slower and less efficient cattle mills were pushed to these margins, away from the more fertile central plain. This left long stretches of coastline vulnerable to an enemy landing within a short overland march to the Dockyard. This vulnerability, although acknowledged, was only rectified after the American Revolution with the expansion of the military encampment at Shirley Heights and the establishment of new batteries there (Buckley 1998). Prior to this, the only landward defenses were the guns on Great George Fort on Monk's Hill which the government deemed adequate, although out of range to provide an effective deterrent (NAAB 324: 11 July 1745).<sup>30</sup>

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<sup>30</sup> The entire report reads: "Report of the Committee appointed to prepare an Address to His Majesty for the supply of Ordnance...And that as to the application which has been made by the Lords Commd.r of the Admiralty for the Thirty Twenty four Pounders mentioned in the Report of the Board of Ordnance to his Grace the Duke of Montague You Committee observe that the same was made at the request of Mr. Knowles & not of the Council & Assembly for the particular Supply of the Forts & Fortifications lately Erected by him at English Harbour and that no part of those Cannon were ever intended for the Forts & Fortifications described in the Plan already referr'd to by your Committee, tho' Monks Hill where some good Cannon are very much wanted has so much the Command of English Harbour, that no Enemy can safely attempt the Same by Land but must be intirely exposed from thence, will never be able to defend itself from an Attack by Land, all the Forts & Batteries Erected there being Calculated to oppose an Attack from the Sea only." This not only acknowledges that Antigua's fortifications were built to defend seaborne attacks, but shows the difficulty in acquiring ordnance for Antigua's defenses, even those which were protecting the Dockyard, indicating a mismatched desire by the Navy to fully embrace the Dockyard as a naval base in spite of its natural advantages. Long term strategic thinking was still confined to local theatres of operation, rather than attempting to see the whole picture. Many historians argue that British successes over the French in the eighteenth century came not from a dedicated imperialistic plan, but

The Dockyard and the Navy were conceptually built into the Antiguan martial landscape by the plantation elites as something not quite military. Just as with the army, and indeed the rest of the fortification network, the Antiguan government politically tried to maneuver the Royal Navy for the local defense of the island only. Every time vessels were redeployed away from the island, letters and petitions were immediately drafted to protest their perceived abandonment. Their support for the Navy's presence in Antigua meant to them that the Navy was required to maintain a standing force on the island, and should be understood through this paradigm. Their support for this position is clear in their petitions for more naval support, highlighting the Antiguan public's contributions to this project in the form of money, labor, and infrastructure, just as much as they leveraged their geographical and economic importance to the sugar trade, through peddling their political influence of Navy officers on station, and in London (Williams 2016).

### *The Antigua Militia*

The militia was a military organization which required every white male between the ages of 14 and 65 to serve (Dyde 2000: 42; Gaspar 1985: 119-120). The militia concept, derived from the English county militia structure to serve as a local defense force and manpower reserve in case of war, was a civic duty controlled by local governmental institutions, originally as fealty to the local noble, and later to the assemblies and councils scattered around Britain (McCormack 2015: 19-22). With English and later British settlement in the Western Hemisphere, the militia as an armed force took on a new sense of urgency: specifically, as an organization, it often provided the only form of defense for nascent colonies, but also was used in offensive operations, as

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rather a diffuse system of government with considerably more flexibility than their French counterparts (Syrett 2008; Smelser 1955; Satsuma 2013).

support troops, but also in surprise attacks. By the beginning of the eighteenth century, however, the role of the militia subsided, with the Antiguan militia in particular suffering from several offensive failures under the leadership of Christopher Codrington II and his son Christopher Codrington III (Parker 2011; Waters, forthcoming).

The eighteenth-century Antigua militia was largely unrecognizable from its previous role as an offensive unit, having different objectives, and couched in a different set of cultural values than its seventeenth century iteration. Whereas many of the early Antiguan elites possessed military experience fighting in Europe, as the eighteenth century wore on, and sugar became the island's staple, fewer of the elites had ever served in a formal military capacity (Webb 1979). Instead, to burnish their social credentials, they commissioned themselves into the Antigua militia through purchasing positions nominally concomitant to their perceived social and economic position; the more acres you owned, the higher your expected rank was. Military experience was not necessary, and expectations of going to war were even lower. The militia was largely mocked across the Caribbean, and Antigua's militia were particularly known for their gaudy displays of martial costume and poor training and were largely written off as being an ineffective military force (Buckley 1998: 51-52). In Antigua's case, this resulted in descriptions like, "a tradition of fairly bogus captaincies and colonelcies...adding to the self-esteem of the recipients," (Dyde 2000: 42), and militia units such as: "a 'regiment' of one hundred 'cabinieres' under no less than three colonels and ten other officers, and a 'company' of three officers and a single private," (Dyde 2000: 58).

The social differences between the officers and the privates in Antigua's militia cannot be understated. The militia was a heavy burden for the rank and file drawn from poor whites occupying such roles as overseers, drivers, and small holders. Required to march out during

alarms, and serve on patrols in times of need, these men were pulled off of their small farms or away from their businesses, often to their detriment and ruin (e.g. NAAB 324: 6 December 1743; see also Gaspar 1985: 119-120). Trevor Burnard's (2015) argues that the poor white men drawn to the Caribbean and filling positions as overseers and drivers were drawn largely from the ranks of demilitarized men. McCormack (2015: 5), estimates that "one in four British men performed some kind of military service during the French Wars," between 1775 and 1815, suggesting that perhaps there was more military experience within the ranks of the militia than necessarily seen amongst the officer corps. Nevertheless, it was a poorly led force, with low attendance, and high rates of desertion, which was faced with a shrinking eligible population to continue to fill the ranks.

Contributing to the weakness of the militia was the manpower drains during wartime when privateering offered chances at immediate wealth for any man who could sign onto a crew. Private vessels of war were numerous, drawing large crews of men looking to personally profit from the capture of merchant vessels (Elleman and Paine 2013; Magra 2013; Marzagalli 2013; Marx 1992; Truxes 2013; Syrett 1970; 2008). In Antigua, where poor white men had few opportunities and no access to capital, joining privateering crews offered a chance at financial gain. During the Seven Years War, the Antiguan government debated whether to send white volunteers to bolster the invasion of Guadeloupe because, "at least one fifth part of the white men belonging to these Islands are already engaged on board Privateers," (CO 9/24: 1 March 1759). In the same address, Governor George Thomas continued, "That from this diminution of the number of white men, The Forts & Battery's of this Island are left almost defenseless for want of Matrosses, who from the hopes of Plunder in an Enemy's Country, cannot upon any terms be persuaded upon, to return to their former employment." Privateering and the lure of plunder

drew many of Antigua's poor white men away from the island, further reducing the available forces for the militia. With the French still capable of achieving local naval superiority, and French privateers continuing to operate around Antigua, raids or an invasion were not outside the realm of possibility, and providing enough men to maintain control over the island's martial landscape was a constant worry.

### **Defining the Martial Landscape**

The martial landscape is the local manifestation of a defense policy created and enacted by an island plantation elite using it to organize the space around them. It is an armed landscape, but one which is not military: the local and imperial military institutions play subservient roles to, and factor in the machinations of a small sliver of Antigua's population. The hierarchical difference between the plantation elites and the rest of the population is further exacerbated by the extreme demographic pressures created by a population which is overwhelmingly enslaved and violently coerced for the enrichment of a few, and the vast inequality which existed within the ever-shrinking white population. To best maintain their positions, then, those in the Antiguan legislature developed defense policies which mirrored their priorities, which manifested themselves in how the fortification network was laid out.

In addition to being locally shaped, the martial landscape is couched in the language, trappings, and materiality of a formalized military structure. Officer titles, architectural nomenclature, and formal cartography provide the veneer of military respectability. The officers, garrisoned men, and fortifications themselves look military, signaling experience, education, and status amongst a narrow, but incredibly powerful, elite. These trappings, however, are cosmetic. They are a layman's concept of what a fort should look like, or how an artillery battery should operate. They do not represent military theory, engineering, or

experience. They trade on the symbolic potency of military features, but cannot effectively or efficiently unleash the violent potential of what they are trying to symbolize.

### **Progression**

To develop the case for a martial landscape as a framework for understanding Antigua's fortifications and the colonial paradigms which governed Antigua as a whole, this dissertation is organized into chapters which systematically build this case. Chapter 2 is an historical overview of seventeenth and eighteenth-century Antigua and provides the necessary context to place the island's defenses in the wider landscape. This also includes an in-depth typology of Antigua's fortifications including a discussion on their different historical missions they were meant to fulfill. Chapter 3 places Antigua's defenses into the global context of the time and builds a defensibility framework using an Historical Geographic Information Systems approach to assess the vulnerability of Antigua's coastline from attack. This is done to test the two major interpretations of Caribbean defenses; that Antigua's fortifications were effective in preventing an enemy attack in Chapter 4; and, that the fortifications were an active part of maintaining internal security in Chapter 5. Chapter 6 introduces the people who garrisoned and lived at Antigua's fortifications, complicating their interpretation as military sites by identifying women, children, and enslaved persons at these sites, and finding little or no evidence for soldiers materially or in the documentary record. Chapter 7 ties these strands together and argues that rather than being borne from a desire to effectively defend against an outside incursion or quell internal rebellion, the fortifications speak more to the internal social dynamics of Antigua's plantation elites, and are expressions of autonomy from Britain. The chapter concludes with how the system collapsed by the end of the American Revolution, with the British Crown inveigling



themselves into the day to day business of running the island, completing a colonization of Antigua 110 years after the Leeward Islands were formed.

## Chapter 2: An Overview of Antigua's Fortifications

*Likewise doe every thing else that may be necessary for the putting this Island in the best posture of Defense we are Capable.*

Antigua Assembly to the Antigua Council, 5 September 1704<sup>1</sup>

### Introduction

Antiguan elites feared two major threats to their wealth and success: the depredations of an outside attack, and the sudden, violent uprising by their enslaved laborers. All defensive actions arise from these fears, and are manifested in the words and works on the island which create the martial landscape. This chapter lays out the context in which Antigua's defense network was needed, conceived, and built from an explicitly island-centric, local perspective because of two reasons. First, as discussed in the previous chapter, Antigua's political trajectory between 1670 and 1785 was locally controlled, resulting in what Roger Norman Buckley (1998: 67) sees as "opposite views held by the colonists and the mother country regarding imperial defense." This chapter elucidates those local processes which allowed the Antiguan legislature to erect forts, batteries and guard houses along the coast of the island. Second, this chapter lays the contextual background for assessing the defensibility of Antigua's defenses: specifically, testing whether the axiom, "defense rested on rocklike island fortresses;" impregnable positions with imposing viewsheds, thick walls, and well-engineered embrasures designed to keep an enemy at bay (Buckley 1998: 67-69). These concerns are inseparable: the historical context shapes local processes by which we can assess the *political*, rather than just military, purposes of defense, and thereby better frame the archaeological landscape of Antigua.

Antigua is the largest of the Leeward Islands. Colonized by English settlers transplanted from nearby St. Kitts, Antigua suffered frequent droughts, hurricanes, earthquakes, and military

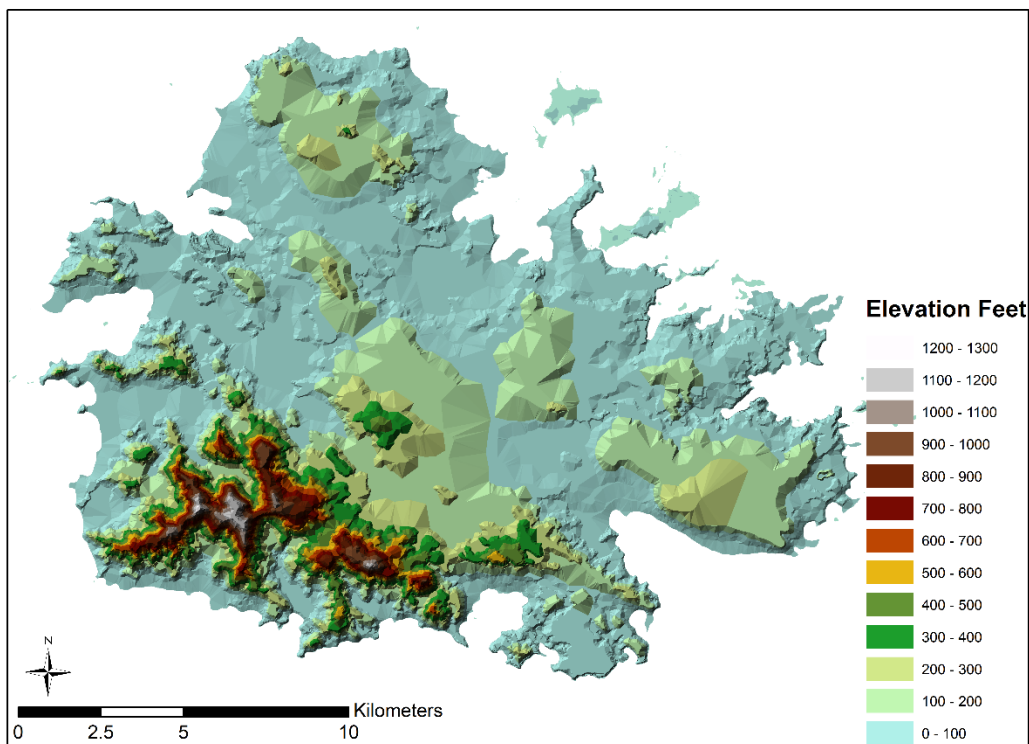
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<sup>1</sup> CO 9/1: 5 September 1704.

threats from other European powers. By 1707, more than 80% of the total population was enslaved Africans toiling on sugar, cotton, ginger and indigo plantations: by 1756, more than 90% of the population was enslaved, engendering fears of insurrection amongst the plantation owning elites (Southey 1827 vol. 2: 200, 319). Officially navigating the challenges (from the perspective of the elites) faced by Antigua was the local colonial government, nominally led by a royally appointed governor who was often a plantation owner himself, and supported by two legislative chambers, the Council and Assembly. Among their tasks was crafting a defense policy to protect the island from external attack and internal dissention. Their policies manifest themselves in fortifications built in the historic landscape, visible historically and present archaeologically today. Defense is a product of the environment, population, and political will. The multifaceted processes which factor into defense decisions are legion, factoring in myriad choices based on history, contingency, political will, military experience and selfish agendas. To understand how Antigua's fortification network came into being, and the sociopolitical ramifications in interpreting the island's landscape, deep context and description are required to elucidate the role which fortification played in colonial Antigua. As fortification and defense are contingent on historical context, architectural and military limitations, and environmental factors, this chapter examines diachronically the political decisions and physical remains of Antigua's defenses. I start with the geography of the island and a limited pre-Colombian overview followed by a detailed historical and archaeological account of the history and politics related to the forts and fortifications of Antigua, thereby laying the necessary context through which to interpret the fortifications.

## Physical Antigua and Prehistory

Antigua is located at 17° 10' North by 61° 55' West in the middle of the Lesser Antilles island chain in the Eastern Caribbean (Figure 2.1). At 108 square miles, Antigua is the largest of the former British Leeward Islands (Montserrat, Nevis and St. Kitts), although significantly smaller than its French neighbors of Guadeloupe and Martinique to the south as well as the other major British possessions of Barbados and Jamaica. The Antiguan government argued, however, that the island represented the “the key of the British Navigation to all the Sugar Islands, and even to Jamaica itself,” with most of the shipping travelling to Jamaica passing just south of Antigua, (CO 9/20: 26 April 1754). In this capacity, Antigua played a major military and social role during the seventeenth and eighteenth centuries as a sugar producing island, military staging point and home to the only year-round naval dockyard in the eastern Caribbean.



*Figure 2.1: Antigua topographical map based on 25 feet intervals from the 1:50,000 scale map of Antigua (cell size 7.62 meters). Elevation in feet. Illustration by Christopher K. Waters.*

Antigua has three distinct geological formations: volcanic, limestone and uplifted coral marl. The steep sided hills and narrow valleys dominate the southwest part of the island: the remnants of an eroding volcano. Igneous rock and volcanic sediments characterize the matrix in this area. This is also the highest elevations on the island, with Mount Obama (previously Boggy Peak) reaching 402 meters (1,319 ft.), making Antigua a relatively flat island compared to most other islands in the Lesser Antilles. The central plain is a mixture of uplifted seabed and spilled over volcanic material characterized by “agglomerates, tuffs, and conglomerates, together with some cherts and lime stones,” (Cooper and Bowen 2001: 8). The area is also considered the most fertile, and for an island with no freshwater sources, the area which gets the most precipitation. Historically, this was where most of the successful, large sugar plantations were located. The southernmost part of the island is the remains of a volcanic caldera. The geological shelf on which Antigua sits drops off into a deep channel within a few meters of the coastline on this side of the island. Conversely, to the north, the ocean depth is considerably shallower—between 27 and 33 meters deep—as Antigua and her northern sister island Barbuda share the same shelf (Cooper and Bowen 2001: 7). The elevation on the northern side of the island does not exceed 40 meters (Martin-Kaye 1959). Offshore, the northern and western parts of the island have considerable natural protection, in part, from numerous reefs, shoals and small islands. Colonial builders exploited limestone as well as pyroclastic flow and volcanic sedimentary rock depending on which source was the closest, including for use in the island’s fortifications

Antigua is relatively flat and irregularly shaped compared to the more regular coastlines of its geologically more recent, volcanic neighbors in the British Leeward Islands. Historically, Antigua’s geography posed problems for defense because:

Although Antigua is naturally fortified by rocks and breakers, which defend it from the attacks of large vessels, yet there are so many creeks and harbours (which, with a small

population it was almost impossible to protect) that the French and Caribs<sup>2</sup> found it an easy matter to land their canoes, and destroy and plunder the country, and ill treat the inhabitants. From these circumstances, emigrants were unwilling to settle here, but preferred going to some of the other islands which were less liable to these incursions (Langahan 1844: 122-123)

This means that geography plays a major role in understanding Antigua's fortification network as the colonial government created and maintained the defenses. Knowing the lay of the land, or, perhaps more importantly in the case of an island, knowing the inshore waters, can elucidate where vulnerabilities exist. A beach, for example, makes a great landing place for an invading enemy. But, a reef just offshore and upwind of a beach make sailing near and deploying troops incredibly dangerous, if not impossible. As the island elites would have at least a rudimentary knowledge of sailing, these geographic and meteorological considerations play significant roles in understanding the island (Chapter 3).

Antigua was first settled by people moving their way north up the island chain from Trinidad and South America. The earliest radiocarbon dates on Antigua come from Little Deep at Mill Reef and are from around 3,106 BC. A second site, Twenty Hill, dates to c. 2,910 BCE (Nicholson 1994b: 12; Wilson 2007: 51-52). These sites were populated by Archaic people who are materially identifiable by large shell middens and a variety of ground stone and flaked tool traditions. The ground stone tools are particularly identifiable by their elaborate, large, notch constructed celts (Rouse 1992: 65). Equally important for identification purposes is the lack of a ceramic making tradition. The Archaic culture on Antigua has been the subject of some research, and to date 72 sites have been identified (Davis 1974; DeMille 2005).

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<sup>2</sup> Carib is the contentious name given to the indigenous peoples found in the Lesser Antilles by Christopher Columbus, based on the root word for cannibal. This name persists in the historical record and into today. I retained the moniker Carib as it appears in the historical record and is in common usage. Consensus on which name to use when discussing historical contexts is being debated (Fraser 2014). Reflecting this contention, descendent groups petitioned the government of Dominica to officially change their name from Carib to Kalinago in 2010, although little progress has been made (Kentish 2015).

Antigua was subject to another large-scale migration by a distinctly different group around 600 BCE. Unlike their Archaic predecessors, these people carried with them a distinctive ceramic technology required in manioc agricultural production. Defined by Irving Rouse broadly as Saladoid, derived from the ceramics, these were an Arawak speaking culture from the Orinoco River Basin in modern day Venezuela (Berard 2013; Rouse 1956; Rouse and Morse 1999: 19-28; Wilson 2007: 67). There are currently debates whether these new groups supplanted, exterminated or absorbed the earlier Archaic peoples (Rouse 1992: 70; Baik 2013: 173-175; for an overview see Hofman 2013). Sites are characterized by deep, stratified seashell and marine faunal middens with continuous occupation lasting several centuries. These middens also contain often highly burnished and decorated ceramic bowls and jugs, as well as more utilitarian ceramics such as manioc griddles, ground stone axes and pendants, shell tools and beads, flaked lithics and a variety of semi-precious stones carved and polished into animal figurines. To date there are 74 ceramic age sites identified on Antigua. Notably, Antigua seems to be abandoned around 1,300 CE and only subjected to sporadic visits: a singular event in the Eastern Caribbean. The abandonment of the island seems to coincide with a new migrations from South America and the emergence of more complex societies in the Greater Antilles in the north (Curet 2003: 14; Hofman 2013: 216; Wilson 2007: 149). The colonial and Amerindian settlement patterns do not show any overlap, so, for the purposes of this project, we can assume that Antigua had become abandoned prior to the arrival of the first permanent European settlers in 1632 (Wilson 2007: 14).

## **Sugar, Demographics and Defense: Politics of Colonial Antigua**

Antigua's first successful permanent European settlement is popularly cited as 1632 (Dyde 2000: 14; Oliver 1899: xviii).<sup>3</sup> A small group of settlers arrived from St. Kitts, some 40 miles to the north, led by Thomas Warner. Antigua only grew slowly in the first decades, often attributed to the lack of natural fresh water available on the island (Bridenbaugh and Bridenbaugh 1972: 13, 221; Dyde 2000: 14-15; Zacek 2010: 16-17). Four related events in the seventeenth century changed Antigua's trajectory and have a major bearing on the study of Antigua's fortification network: a successful French invasion in 1666, the separation of the Federated Leeward Islands from the proprietary rule of Barbados in 1670, the subsequent selection of St. John's in Antigua as the capitol of the new colony around 1680, and the introduction of sugar and sugar milling technology from Barbados in the 1650s.

The French invasion of Antigua in 1666, and attacks on other English islands, were blamed in part on the lack of response and desire by Lord William Willoughby<sup>4</sup> and the Barbadian government to relieve the islands and send their rightful proportion of military stores. Natalie Zacek concludes that, "Barbados, under the leadership of William, Lord Willoughby, was nearly as culpable as the French themselves for the terrible state in which the Leewards found themselves," (Zacek 2010: 43). The French landed almost unopposed and the hastily erected earthworks were abandoned immediately by the defenders. Although there were some pitched battles in the interior between French and Antiguan troops, Antigua capitulated within two days. Antigua, at this time, was still sparsely settled with an estimated fewer than 2,000 inhabitants, 800 of whom were enslaved Africans. The French, following the surrender,

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<sup>3</sup> Dyde (2000: 14) accepts the 1632 date of English settlement as this was the year the expedition set out from St. Kitts but suggests that permanent settlement may have taken a couple of years. As 1632 is the almost universally cited date, I will continue to use it as the date of English settlement.

<sup>4</sup> William Willoughby, 6<sup>th</sup> Baron of Parham.



plundered the island, stripping it of weapons and crops as well as forcing an indemnity of 200,000 pounds of sugar (Dyde 2000: 23). Furthermore, the French seized 500 of the enslaved Africans, seizing over 60% of the enslaved labor on the island, representing a major loss of capital (Langahan 1844: 37). This attack heralds a pattern of plundering occurring throughout the seventeenth and eighteenth centuries in the Caribbean (e.g. Buckley 1998: 52; Dyde 2000: 37-38, c.f. Satsuma 2013; Skowronek and Ewen 2006; Skowronek 2016). While this practice damaged colonial outposts through reducing the valuable plantation enterprises, plunder also created a way which the nascent colonies gained capital, equipment and labor to support their own plantations quickly and at little cost.<sup>5</sup>

As a direct result of the desire to formulate their own defense policy being so close to and directly to leeward of the French strongholds at Martinique and Guadeloupe, the inhabitants of the Leeward Islands successfully petitioned King Charles II for their right to govern their own affairs. The result was Britain's first federated colony comprised of Antigua, Nevis, St. Kitts and Montserrat, along with their dependencies—Barbuda, Anguilla, and some of the Virgin Islands. Already somewhat competitive, independent and weary of losing out to their near neighbors economically as well as for settlers and enslaved Africans, each island created their own governmental institutions, declaring them independent from the wills and desires of the other islands' legislative bodies. The individual islands' Assemblies refused to cede any of their authority to the federal governmental structure and steadfastly clung to their own independence.

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<sup>5</sup> The prospect of plunder and personal enrichment was used as a recruiting device for privateers and offensive militia operations. For poor white men, war spoils offered a quick way to escape debt. The chance of spoils seems to have been a large enough draw for these men during wartime, as the Antiguan government was worried that there were not enough men left on the island to mount a proper defense (e.g. CO 9/24: 1 March 1759). Interestingly, soldiers from the 21<sup>st</sup> Regiment were censured for seizing enslaved men during their campaign on Guadeloupe, and selling them in Antigua, suggesting that the practice, at least by official government troops, had waned by the end of the eighteenth century (NAAB 332: 24 July 1794).

Practically, this meant that despite the best efforts of Parliament and Royal control from Britain over the affairs of the islands through the Governor, the metropole had very little direct effect on St. Kitts, Nevis, Monserrat and Antigua. Each island set their own laws, valued their own coin, set their own defensive policies, and even were represented individually by different agents in London. Attempts to create a unifying General Council and Assembly failed to produce cooperation, bred mistrust, and was more or less abandoned by the first decade of the eighteenth century. The Governor, the direct representative of the Crown, split his time between the islands as he saw fit, and was often at the mercy of the local legislatures to pay his salary, rent and upkeep, and provide for his travel expenses between islands. Despite attempts by various Governors at centralization, power rapidly devolved to local jurisdictions; thus, providing Antigua's elite a huge amount of influence over the affairs of their island, creating one of the "small and dynamic republics" at the edge of the empire (Sarmiento 2011: 5). The last General Council meeting occurred in 1705, and subsequently was officially dissolved in 1710 after a tumultuous few years of political and sometimes even violent fighting (Dyde 2000: 26; Zacek 2010: 209). Power devolved, as it always had, to each island Assembly and Council. Each island believed that only they could speak for their own self-interests, and any steps at creating a greater Leeward Islands political unit would only serve to dilute those interests.

The Antiguan republic consisted of a bicameral legislature and a royally appointed governor who oversaw the entire colony. The Antigua Assembly was an elected body drawn from the enfranchised population. Enfranchisement for both voting and holding office in Antigua was limited to those who were at least "twenty-one years old, to be a native or naturalized British subject, and to have the freehold of ten acres of land or of real estate that incurred ten pounds a year in taxes," and who did not carry much debt (Zacek 2010: 213).

Assemblymen served yearlong terms, with annual elections taking place usually in the summer months. Voting districts were broken up by “divisions,” within the parish structure, with each “division” represented by two Assemblymen (St. John’s Town, due to its larger population had four Assemblymen on top of the two members from St. John’s Division, see Figure 2.2).<sup>6</sup>

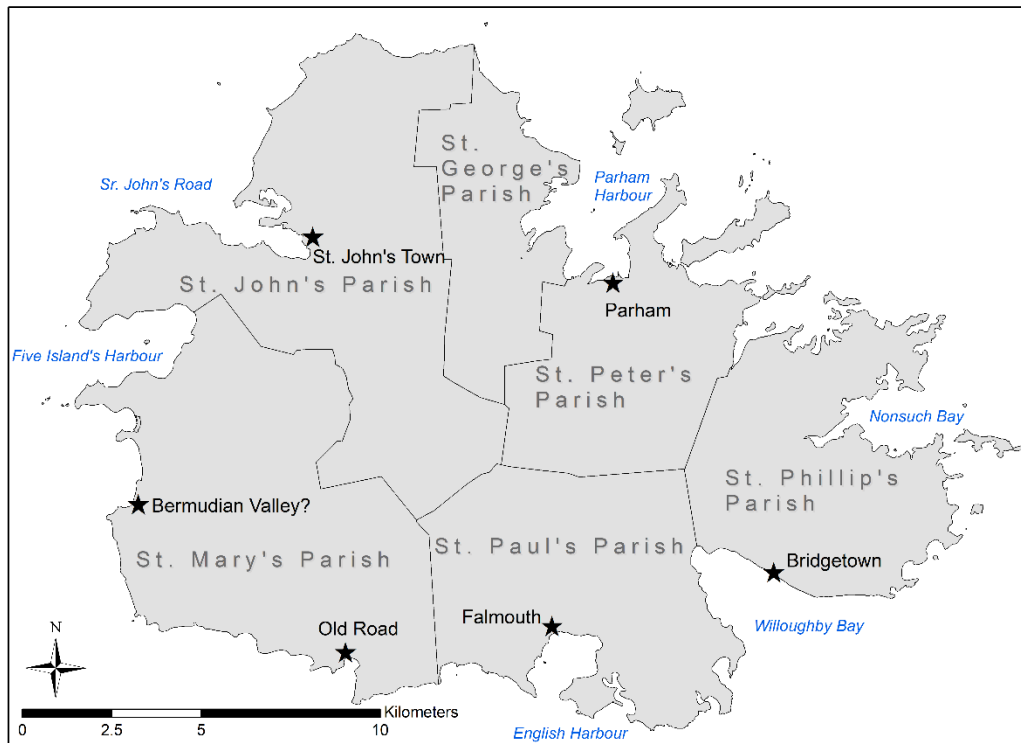


Figure 2.2: Political Divisions in Antigua. Illustration by Christopher K. Waters.

The Antigua Council was the “executive advisory group:” men who were appointed by the governor and assented to by the Crown, to serve and advise (Dyde 2000: 40). Comprised of the most successful and influential men, these were life appointments. The president of the Council also served as the Lieutenant Governor, and when the Governor was away, operated in the same capacity as the Governor might. The Council served as the local conduit to the

<sup>6</sup> Spatially, power favored the north and west parts of the island. Several of the smaller, rural divisions were folded together, like Falmouth and Rendezvous Bay Divisions, further impacting the geographic disparities between the north and west side of the island, and the south and east side.

Governor, and provided continuity in the local government. They did not, however, have direct legislative authority, could not craft bills or issue bills to the Treasury without the Assembly's consent. This bicameral system paralleled the Houses of Parliament in form, and the island's system was seen locally as outside of the direct purview of, and equal to, the legislative power of Parliament. The implication here is that the only authority set above each island's local governmental bodies was the power of the reigning monarch and not the civic institutions of Britain. This engendered significant political autonomy in Antigua from metropolitan oversight and allowed Antigua's own institutions to govern as they saw fit (Zacek 2010: 12, 209).

At the core of Antigua's importance to the Atlantic World was sugar monoculture. Sugar provided Antiguan elites with enormous wealth and rapidly became the crop of choice after its introduction sometime in the middle of the seventeenth century.<sup>7</sup> Sugar required large tracts of land, industrial equipment, and a large labor force (Armstrong 2011: 88; Armstrong and Kelly 2000; Bates 2015: 117; Delle 1998; 1999; 2011; 2016: 111; Dunn 1972; Maniketti 2015; Mintz 1985; Sheridan 1961; Singleton 2015a; 2015b). While the transition to sugar in Antigua proceeded less rapidly than other sugar islands (Craton 1978; Maniketti 2015; Menard 2005), by 1713 Antigua was producing more sugar than the rest of the Leeward Islands and the federated colony had taken over from Barbados as the chief sugar exporter to Britain (Dyde 2000: 59; Dunn 1972: 117; Engerman 1996: 160-161). The growth continued until around 1770, after which the larger Jamaica with better soil could outcompete the smaller Lesser Antilles.

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<sup>7</sup> Christopher Codrington is credited with bringing the secrets of sugar cultivation with him from Barbados and thus transforming the island. There are, however, numerous indications that industrial sugar was already present in Antigua prior to Codrington's arrival, such as the French demanding an indemnity of 200,000 pounds of sugar as well as industrial machinery used to process sugar (Oliver 1899: xxxvi). Samuel Winthrope was exporting 20,000 pounds of sugar annually from his Antiguan properties in the 1660s, a decade prior to Codrington's arrival (Gragg 1993: 771). However, Codrington was one of the first planters in Antigua who could leverage the large amount of capital, thereby expanding quickly to rapidly become one of the most prominent planters on the island in spite of his recent arrival.

The sugar economy parceled up the landscape with individual plantations. By 1724 Antigua was exporting 12,000 hogsheads of sugar, 4,000 hogsheads of rum, and 850 hogsheads of molasses to Britain (CSPWI: 10 July 1724).<sup>8</sup> By 1751 all available acreage was patented and cleared, carved up across 264 estates collectively owned by 143 different extended families (Baker 1748; Dyde 2000: 85; Slesnick 1999). These men, along with some merchants in St. John's, formed Antigua's social and political elite: fulfilling roles within the Assembly and Council, as well as holding civil and militia offices. They also formed the tax base: annually collected taxes came from a 4 ½% duty on all sugar exports, as well as excise taxes imposed on selling and distributing liquor.<sup>9</sup> A powder tax was also enacted on all shipping by the burthen ton, payable in either gun powder for the public magazines, or in cash collected by the treasury. Further revenue was collected in fees and fines imposed by the courts; the justices of course drawn from the plantation elites. While these repetitive taxes provided some annual revenue, Antigua's tax receipts were never large enough to offset the annual expenses, and most years a poll tax was leveraged on tenements, acres, slaves and cattle, often with caveats excluding individuals who owned fewer than four enslaved persons or the equivalent in livestock or property, from paying. These taxes disproportionately targeted those with the most wealth: the plantation elites serving in the Antiguan government who were voting on these measures.

Antigua's demographics are held up as being extreme examples of a crumbling social order and massive imbalance between free Europeans and enslaved Africans (Dunn 1972; Hall

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<sup>8</sup> For comparison, this represents 43.6% of the total sugar output, 89% of the total rum output and 16.5% of the total molasses output of the Lesser Antilles. Additionally, 200,000 pounds of both cotton and ginger were also exported, suggesting that at the height of Antigua's white population, a significant number of small holders were able to possess land and produce cash crops other than sugar. Cotton and ginger yields shrink rapidly over the eighteenth century and do not appear as exports at all in the 1780s (CO 10/2).

<sup>9</sup> See Chapter 1.

2001; Ragatz 1931; Sheridan 1961; Williams 1994 [1944]: 86; for a counter narrative see Zacek 2010). Demographics played a direct role in formulating a defense for Antigua: white men were needed to serve in the militia as well as gunners and matrosses on the fortifications. The more men the island could attract, the more likely Antigua could hold out against an attack. Antigua's demographic trends, however, placed increasing pressure on the strategic and tactical decisions affecting defense (Table 2.1). Antigua grew rapidly after its separation from Barbados, climbing from a population of 4,480 in 1678, to 22,858 in 1720. The vast majority of this growth came from the massive importation of enslaved Africans to work in the burgeoning sugar economy, with the proportion of enslaved persons jumping from less than 50% to over 80% in 42 years. In fact, the year on year growth continued on a steady trajectory from the 1670s until the American Revolution, in spite of negative birth rates, inconsistent importation of new Africans, war, drought and famine (Waters, forthcoming). The white population grew much more slowly, from 2,308 to 3,672 individuals, of which about 40% were white men of age enrolled in the militia. Militia enrollment included all white, protestant men between the ages of 14 and 65 (Dyde 2000: 42; Gaspar 1985: 119-120). Even so, there were some exceptions stemming from cultural disdain and religious pacifism. Irish Catholics were generally not trusted, and considered a potential fifth column if Catholic France attacked, causing a consternation amongst Antigua's elites (Zacek 2010: 71-99). As late as 1746 legislation was introduced in Antigua to limit the number of Catholics on Antigua stemming from their questionable loyalty (NAAB 324: 16 May 1746). Quakers and their pacifist ideals were also viewed skeptically, especially in the earliest days, with at least one instance of the legislature refusing to allow the settlement of two men in Antigua because they could not be counted upon to bear arms in the militia (Gragg 1993)

Attracting white men to serve in the militia in general, was a constant worry in the Antiguan legislature. In attempts to increase the number of whites on Antigua, the government relied on a number of different sanctioned schemes, including bounties set to reward white men settling on the island, and penalties for slave owners who were required to hire a white person in proportion to the number of enslaved persons they owned.<sup>10</sup> With the end of Queen Anne's War in 1714, and the culmination of the Northern War in 1721, thousands of poor white soldiers and sailors were discharged, with many seeking their fortunes in the West Indies, a wave which Trevor Burnard (2015) sees as a white, male population predisposed towards violence and primed for work as plantation overseers. This movement contributed to the white population in Antigua peaking in 1729 at 4,088 of which 1,400 served in the militia. Faced with little opportunity for land in Antigua and more possibilities in places like Jamaica or North America, many of these poor whites left Antigua, with the population collapsing 37% to 2,590 at the eve of the American Revolution. The enslaved population, meanwhile, continued to grow, from 19,186 in 1720 almost doubling to 37,808 in 1774, representing over 90% of the total population. At the same time, the free black population started to grow. Somewhat ignored in the historical literature, the free black population started with manumitted individuals, children from planter liaisons with enslaved women legally acknowledged (e.g. Parker 2011; Burnard 2004), or sprung from those rewarded with their freedom for bravery, like Cola, who raised an alarm, thus

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<sup>10</sup> The historiography of the Caribbean has recently turned to reexamining the lives of the white population, especially those outside of the white, protestant planter (e.g. Burnard 2004; 2015; Gragg 2003; Higman 2005; Shaw 2013; Zacek 2010). Jason Sharples (2015: 813-815) describes this historical refocusing is partially the product of a school of thought in history where all historical documentation is filtered through a specific (white, elite) perspective reifying dominant cultural paradigms, therefore making it difficult, if not impossible, to historically reconstruct the lives of subaltern (in this case enslaved Africans in Barbados accused of conspiracy) populations. Thus, the only historically discoverable lives are those who had their own voice, or were part of the dominant cultural paradigm (in this case, reflections of the fears of the white population about their position in Barbados).

preventing a French raiding party from landing (NAAB 314: 13 July 1697), or Charles, who as a pilot on a privateer, refused to work for the French, in spite of the fact that his enslaver and captain, an Englishman, was working directly for the French, providing them with information about the conditions around Antigua (NAAB 314: 1 September 1697). While the population remained small over the first half of the eighteenth century, by the American Revolution, the population reached 1,230, and was beginning to be drafted into the militia as pioneers (Lowes 1995; Voelz 1993), thus providing for the security of Antigua.

*Table 2.1: Antigua's Population between 1678 and 1774.<sup>11</sup>*

<b>Year</b>	<b>White</b>	<b>Enslaved</b>	<b>Free Black</b>	<b>Total Population</b>
<b>1678</b>	2,308	2,172		4,480
<b>1697</b>		7,000		
<b>1699</b>		8,000		
<b>1702</b>		10,500		
<b>1705</b>		12,187		
<b>1707</b>	2,892	12,943		15,835
<b>1720</b>	3,672	19,186		22,858
<b>1729</b>	4,088	22,611		26,699
<b>1734</b>	3,772	24,408		28,180
<b>1741</b>	3,441	24,695		28,136
<b>1745</b>	3,552	27,878		31,430
<b>1756</b>	3,412	31,428		34,840
<b>1774</b>	2,590	37,808	1,230	41,628

<sup>11</sup> Data collated from Dunn 1972: 141; Oliver 1899: lxxv, ciii; Southey 1827: 158, 200, 217, 249, 256, 319, 419; Wells 1975: 209-212; Zacek 2010: 48, and from NAAB 314: 26 March 1697; n.d.; CO 9/4: 15 August 1717; CO 152/13/159; CO 152/18/20,22,42,46-49; CO 152/20/149-166; CO 152/28/Feb. 20 1756; CO 318/2/p.19.



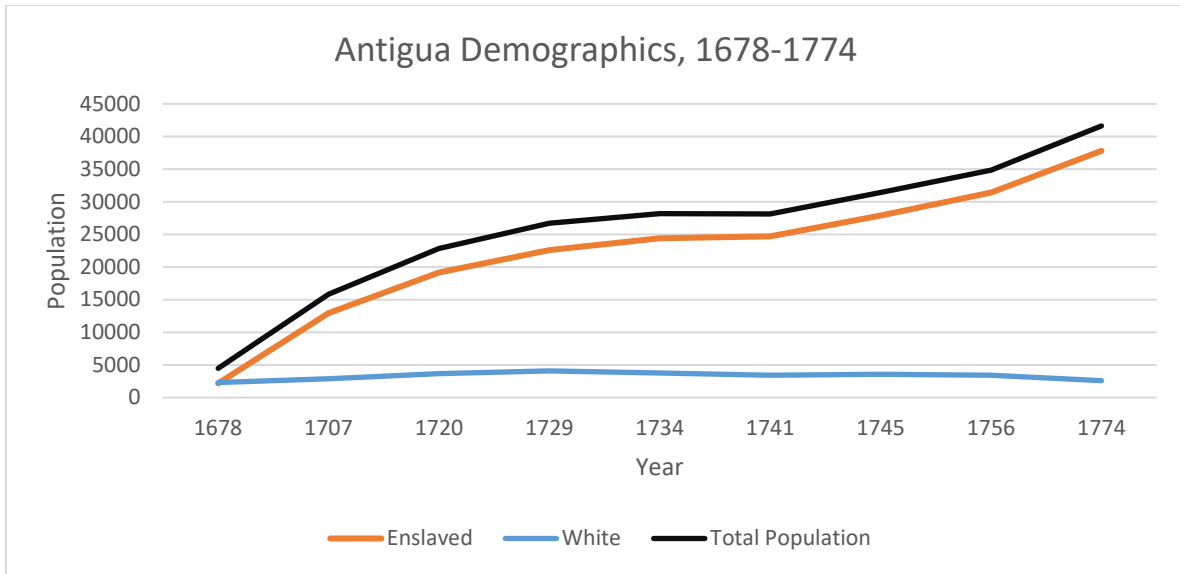


Figure 2.3: Demographic trends in Antigua between 1678 and 1774.

The Antiguan government was constantly concerned with the size of the French islands to the south, claiming in a petition to the King that, “the French Subjects in their Islands are Six times the number of those your Majesty hath in these your Leeward Charribbee Islands, your Majesty’s Regiment of Foot Quarter’d here Included,” (NAAB 324: 1 May 1746). The implication here is that France did not need to send soldiers from Europe, but rather only had to organize a force already in the Caribbean: both an enemy close by and one which may have not felt the impact of disease as quickly as newly arrived European troops (thereby mitigating one of the leading causes of retreat in the Caribbean) (Campbell 2010; Charters 2014; Convertito 2016; Crewe 1993; McNiell 2010).<sup>12</sup> With a small population, the Antiguan government turned towards their enslaved population to bolster their manpower for defense, offering a variety of incentives for enslaved men to fight to support the system which held them in bondage, should an attack happen. These “trusted Slaves who shall valiantly behave themselves on ye Encounter

<sup>12</sup> Indeed, the French tried a sneak attack in 1803, sending 700 men in 13 schooners to attack Antigua. This fleet was intercepted by a Royal Navy frigate, *HMS Emerald*, and scattered (Nicholson 1994a: 22).

of an enemy in Defense of this Island...shall have his Freedom & ten pc. 8/8 for each of ye enemy he shall prove to have Destroyed,” (NAAB 316: 2 February 1701). Additional incentives included “That as further encouragement and pledge of their Fidelitie the wives and children of Such entitled negroes be Secured with our own att Monks hill” (NAAB 316: 7 February 1701). In 1741, 1018 enslaved men were under arms, designated as trustworthy and required to help protect the island (Oliver 1899: ciii, see also NAAB 324: 1 April 1745 ordering a further 1000 slaves under arms). Arming slaves in the Atlantic World was not uncommon, especially when confronted with a larger invading enemy (Voelz 1993). More often, in Antigua, enslaved persons were associated with the fortifications, rather than standing under arms.

Enslaved laborers supplied the labor necessary to construct, repair and maintain Antigua’s fortification network. Based on a proportional system, enslaved men were ordered to work in large gangs. Operating as a *de facto* tax, the Antiguan government regularly required that each of the island’s divisions would send enslaved men, up to 1% of their total number, to public works projects around the island (e.g. NAAB 314: 25 April 1695; NAAB 324: 6 February 1739). Some projects, like Great George Fort on Monk’s Hill, took decades to build. During the expansion of the Dockyard at English Harbour, 130 enslaved men worked there continuously between 1743 and 1750, and “twenty Five or thirty Slaves constantly” thereafter (CO 9/20: 8 August 1749).<sup>13</sup> The slave owners who were chosen to send labor received daily compensation in cash from the Antiguan government for the loss of labor. During the American Revolution £54,550, fully 38% of the total expenditure on defense, was spent on “the Labour of Slaves...and

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<sup>13</sup> During construction, 8 enslaved men lost their lives in an explosion on the 8<sup>th</sup> of March 1744. Billy, London, James Soe, Caramantee Quamono, Dick, Joe, Scipio and Johnno are all recorded as losing their lives in the explosion in petitions by their owners for compensation for their loss (see NAAB 324 between 11 September 1745 and CO 9/20 1 September 1748).

employed as Tradesmen, Labourers and pioneers in erecting Buildings, digging Intrenchments and throwing up Breastworks at the several landing places,” (CO 9/41: 8 May 1783).<sup>14</sup>

Antigua’s fortifications were a local project: debated, constructed, and maintained by the Antiguan governmental elites. *All* the defense projects between 1670 and the beginning of the American Revolution in 1775 started as projects undertaken by, and perhaps more importantly, financed by, the Antiguan government.<sup>15</sup> Since the Antiguan government saw itself as an independent entity within the Leeward Islands colony, and the development of a concerted imperial governmental presence from Britain was weak throughout the eighteenth century, Antigua’s defense relied on local support and whatever additional support they could beg, cajole or petition the reigning monarch to lend.<sup>16</sup> They pushed this point repeatedly, stating:

Your Excellencys observation that this Island is the key of the British Navigation to all the Sugar Islands, and even to Jamaica itself, is truly just; but yet none of those Colonies ever contributed in the least to any part of the immense expense of building & repairing those Fortifications, notwithstanding they partake so manifestly of the advantage; and though these Fortifications are of general advantage to the Navigation of Great Britain, yet hitherto the expence has fallen solely on this Island however incapable of bearing it. (CO 9/20: 26 April 1754)

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<sup>14</sup> At the beginning of the American Revolution the *per diem* rate per enslaved person was £1 6s. During the war, drought and artificial famine reduced the available number of enslaved persons, thereby making their labor more expensive. French privateering further impacted supplies coming to Antigua. By 1779, the Antiguan government had to raise their rates to £2 per day, and again in 1781 to £2 6s. This pay hike reflects the estimated 20% famine mortality rate amongst enslaved Antiguans during the American Revolution: between 7,000 and 9,000 individuals starved to death (Berland 2015: 125-128). The number of enslaved persons on Antigua did not reach the 1774 height until 1810 (Southey 1827: 492).

<sup>15</sup> Two projects, the Barracks on Rat Island and the Great gunpowder magazine at Monk’s Hill both received small grants from London to partially cover a small proportion of the total costs incurred in those fortifications. The Naval Dockyard at English Harbour was started by the Antiguan Government which continued to provide labor levies and financial support (especially in purchasing land) to the project through the 1750s, with the British Crown only fully taking over the entire basin at the end of the American Revolution when the Antiguan government relinquished its stake.

<sup>16</sup> The British government experimented with stronger imperial policies throughout the eighteenth century, with George III particularly interested in exerting more direct control over “his” foreign possessions. This intervention is credited with being the catalyst for the American Revolution. For a discussion of the broader political impacts in the British Atlantic World see O’Shaughnessy 2000.

Between 1670 and 1783, Britain was at war with another European power with possessions in the Caribbean for 56 of those years.<sup>17</sup> With so much wealth generated in the sugar islands, they were considered legitimate military targets in the quest for European supremacy. Invading an island not only cut off supplies to the metropole, it also placed the invader in a tactically powerful situation when it came time for negotiating peace: returning captured territory for favorable concessions. For instance, France ceded all of Canada to Britain at the end of the Seven Years War so that they might have Guadeloupe and Martinique returned to them. Invasion, raiding, and privateering all were lucrative ways to make money and gain resources for the individual and for the state (Buckley 1998; Duffy 1987; O’Shaughnessy 2000; Zahedeih 1986).

But, war negatively impacted the plantation economy. War meant higher insurance and freight costs, constant threats to merchant vessels from privateers, and partial blockades preventing trade, especially provisions from North America and new vessels arriving with enslaved Africans which took major tolls on the plantation economy. Without provisions, large swaths of the enslaved population perished from starvation (Berland 2015: 125-128; Sheridan 1976; Ward 1988: 41, 127-128, 283). Raids by privateers stole enslaved persons and burnt plantations.<sup>18</sup> That, along with complaints of depleting soil, drought, and falling sugar prices, dragged the productivity and profitability of Antigua down by the end of the eighteenth century,

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<sup>17</sup> Wars between factions which did not directly impact the defense of Antigua were not counted, neither were internal rebellions.

<sup>18</sup> Raids are referred to generally throughout the Assembly Minutes, with discussions of privateers “Daily Lurking in our Bays and Creeks,” attacking local intra-island traffic (NAAB 324: 10 July 1746), and Langahan (1844) accounts for at least a dozen raids on Antigua from settlement until the 1740s as well as numerous examples of Antiguan participants in attacks and full invasions on other islands. In fact, in 1748, the Antiguan legislature sent a petition to London “praying his majesty for the satisfaction for the injury suffered by the incursions by the French,” (Langahan 1844: 109). Specific instances include a large raid recorded in 1711 where 19 enslaved individuals were seized, and in 1747 where 6 enslaved individuals were seized (respectively, CO 9/2 9 March 1710; NAAB 234: 1 September 1747).

with the expensive burden of fortifying the island adding huge debts to the public treasury. The Assembly, in a letter of complaint to the Governor in 1749, wrote that they expended £32,000 during the War of Austrian Succession (1740-1748) in building a new barracks, seven new forts and bringing the remaining fortifications into good repair (CO 9/20: 8 March 1749).<sup>19</sup> By 1783, the Antiguan government expended almost £143,000 for defense during the American Revolution (CO 9/42: 8 May 1783).<sup>20</sup>

Work on Antigua's fortifications happened sporadically for much of the seventeenth and eighteenth century: usually completing maintenance on existing emplacements, and occasionally erecting new works as contingencies arose. Most development of the fortification network, however, happened in three major construction phases in the 1670s, 1704, and 1740s. By the American Revolution, the spatial distribution of the fortifications did not change from previous iterations, however, many of the fortifications were upgraded from earthen embankments to formalized stone platforms (CO 9/41: 31 May 1781). The cost associated with this last dramatic increase bankrupted the island. In order to rectify their books, all but the most important fortifications were either sold off to local plantation owners, or ceded to the British Crown;

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<sup>19</sup> Only the expenses for the barracks are explicitly calculated in Pounds Sterling. Assuming that the other figures are in Antigua currency, the total expenditure expressed here, accrued between 1741 and 1748, based on McCusker's (1978: 261) 1749 average exchange of 171.67 Antigua Currency per 100 Pounds Sterling, comes to £37,016.9 Antigua Currency. If the other rates are also in Pounds Sterling, the total rockets to £42,917.5 Antigua Currency. For perspective, the total revenue in 1749 came to £13,301 15s 3 ½d Antigua Currency (CO 9/20: 9 March 1749).

<sup>20</sup> Antigua, like the rest of the British colonies, never had a ready supply of currency or specie. To make up some of the difference, foreign currencies were officially valued and circulated, and the currency was often overvalued (McCusker 1978: 256-262). In an 1803 report to the Antiguan Legislature on the state of currency in Antigua, it states that "towards and after the close of the American War Exchange gradually rose to 185 p. Cent...Some time after the peace of 1783, Exchange sunk to 175 p. Cent seldom varying more than 2 ½ below or above that Rate," (NAAB 334B: 10 March 1803). Based on this rate, the total defense expenditure was roughly £77,000 Sterling. Contextualizing the defense expenditure during the American Revolution is difficult, as annual budgets were only included after 1801. The total expenditure for that fiscal year was budgeted at £10,818.6.4 in Antigua Currency (NAAB 334B: 16 July 1801).

especially those fortifications around the Dockyard and the new military encampment at Shirley Heights (NAAB 331: 11 December 1783). At the time, one traveler commented in a letter:

several forts, on the coasts of the island, were sold...and produced to the public about a twentieth of the sum they cost in erecting. Some of these buildings have been demolished by the purchasers for the useful materials they were composed of, while others remain in their original state, probably to be sold to the public on a future rupture, at any price their proprietors shall think proper to demand for them (Luffman 1789: 33-34).

For the Antiguan government, this move came as a tacit understanding that they could no longer defend themselves. Indeed, they did not want to defend themselves, deeming the whole experience far too expensive. This resulted in a stronger Governor and more direct input from a coalescing imperial policy expanding out of London, and reflected in the Minutes of the Assembly. The Antiguan government focuses more on the local civil institutions, and starts to ask for advice and permission from the Board of Trade for permission to enact legislation. Previously, the Assembly acted more independently, with their letters telling the Board what happened and to assent to their decisions after the fact. This paradigm shift foreshadows the creation of the Crown Colony system in the mid nineteenth-century and what Eric Williams called “the beginning of uninterrupted decline,” of the British Caribbean colonial system (Williams 1994: 120; see also Dyde 2000: 182; O’Shaunessy 2000: 137-159).

### **Antigua’s Fortifications**

Antigua’s fortifications between 1670 and 1783 fall into three broad categories; major fortifications, platforms or “forts”, and guard houses (Nicholson 1994a: 2). Historically, the Antiguan government distinguished between forts and guard houses, where forts were permanently garrisoned structures armed with cannon, and guard houses only occasionally garrisoned by a rotating guard of militiamen and served as watch posts along the coast, although their language is not consistent across the 113-year span of this study. In a professional

assessment, Captain Thomas Lancey of the Royal Engineers, in 1831, states that Antigua's fortifications were in "a neglected and dilapidated state...with insufficient parapets, old guns, colonial made carriages," categorically dismissing them as worthy of his interest, and implying that they were not worthy of the moniker fort (MR 1/1070).

Nicholson's (1994: 2) typology is useful insofar as it is a means with which to discuss individual case studies and creates space within which to break down how, when and where Antigua's fortification network was expanded; by examining the resources the Antiguan government was willing to expend on a particular project, we can see how the island's landscape was regionalized and differently valued. Unlike Nicholson, I break the fortifications down slightly differently: specifically to address some of the complications relating to two particular forts: Fort James and Fort St. John's on Rat Island, with both fortifications guarding St. John's Harbour. Both can be described, despite their large size, as a small "fort" or platform, rather than a major fortification. However, unlike the other platforms, these forts also garrisoned Regulars, making them more similar to the island's citadel on Monk's Hill. Thus, rather than a descriptive type focused on monumentality, I separate the fortifications based on their historically stated primary defensive mission: citadel, coastal protection, and watch/guard houses.

#### *Great George Fort at Monk's Hill*<sup>21</sup>

David Buisseret (1973: 43) identified the, "*deodand*, or fortified refuge, and...define[s] the conditions which led to their adoption," as a key component of Caribbean colonial society.

Identifying at least one *deodand* on each of the larger islands within the Lesser Antilles,

Buisseret suggests that the reason for constructing these monumental fortifications served two

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<sup>21</sup> Great George Fort and Monk's Hill are used synonymously in the archival records and in this dissertation, although the former has mostly fallen out of usage in modern parlance.

distinct, chronologically contingent, purposes. The earliest examples were for protecting the wealth and lives of the nascent colonies, and built by the local settler communities in a bid to secure their positions. These were primarily civilian institutions, with little support from imperial, European, sources. Buisseret argues that this stage of development ended after the Treaty of Utrecht in 1713, after which all the major settled islands had at least one of these structures in place. The second wave of citadel construction mirrored the rise of larger contingents of European troops as the Caribbean became a key battleground in the quest for European hegemony. Instead of being largely civilian in nature, these new fortifications were, “purely military in intention, with the security of the inhabitants and their possessions secondary consideration,” although he does amend this to suggest that this was a phenomenon happening in the more southern islands (1973: 76-78). In Antigua, this second stage never took place like it did, per Buisseret, in Morne Bruce, Morne Fortune, and Morne Cotton, but rather the island’s deodand, Great George Fort on Monk’s Hill, remained a place of last retreat for Antigua’s population (1973: 78).<sup>22</sup>

Great George Fort on Monk’s Hill<sup>23</sup> began as an edict by the Antiguan Government in 1678 declaring the need for “...some secure plot of land be fortified for the preservation of women, children and important persons,” (CSPWI Vol. XXV: 759). With the successful French invasion in 1666, depravations by mutinous Irish servants and indigenous Carib raids shortly

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<sup>22</sup> The second stage fortifications noted are, respectively, Dominica, St. Lucia and Granada. It is worth to note that these islands were originally considered part of the “Neutral Islands,” by treaty in 1748 and neither France nor Britain were supposed to have any interests in the islands. It is also worth to note that Buisseret’s examples are all French forts, which had a different building tradition and system of colonial government in the 18<sup>th</sup> century than Britain did, exerting significantly more influence and control over France’s possessions (see Kelly 2004; 2008; 2011; Dawdy 2008; Delpoeh 2001; Lenick 2012; Verrand 2004).

<sup>23</sup> These terms will be used interchangeably as they are used interchangeably in contemporary discussions.



thereafter, the preservation of the nascent colony was paramount in the eyes of the Antiguan political elite (Dyde 2000: 21-24; Oliver 1899: CSPWI Vol. XXII: No. 17). With a small population, and invasions carried by thousands of soldiers and sailors transported from Europe, the Antiguan government sought a place to hide and wait for reinforcement or until disease wreaked havoc amongst the invading forces. This tactic had some success in the Caribbean, stopping many campaigns in their tracks and forcing a retreat, leaving the entrenched population intact and protected (Buckley 1998; Crewe 1993; McNeill 2010; Mulcahy 2014: 176-204).

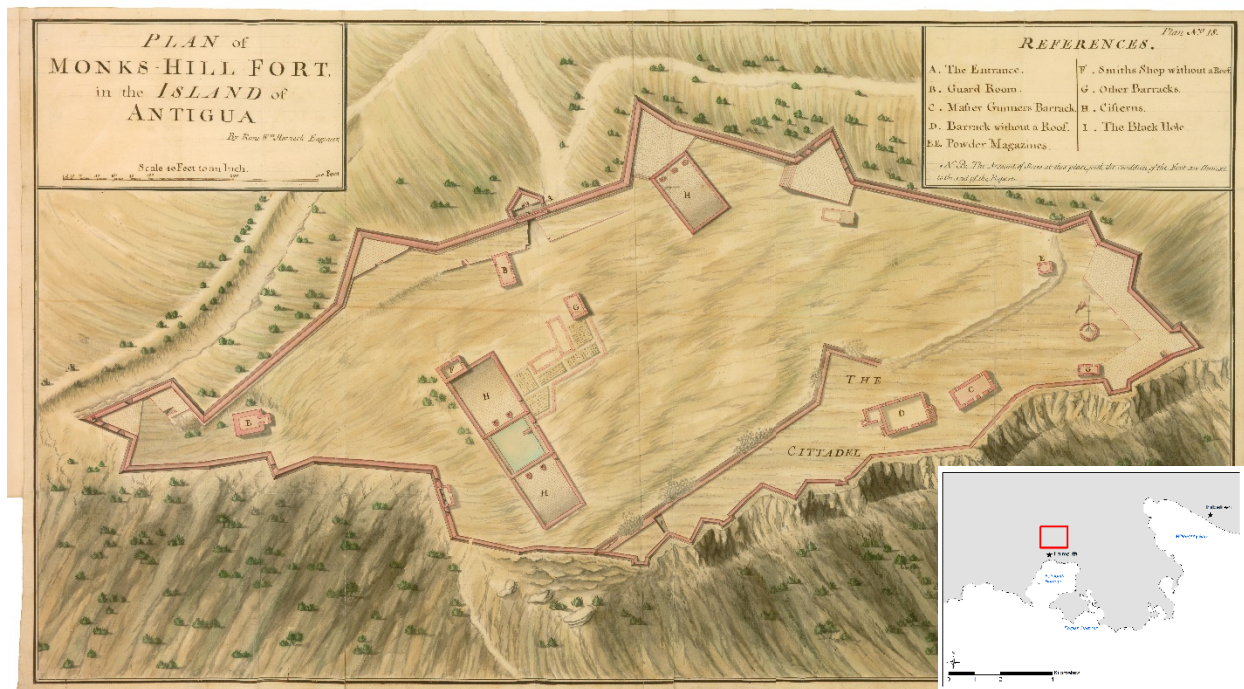


Figure 2.4: "Plan of Monks Hill Fort in the Island of Antigua" by Kane William Horneck (1752). Courtesy of the John Carter Brown Library. Inset illustration by Christopher K. Waters.

Monk's Hill is a large, flat-topped hill, towering 688 feet over Falmouth Harbour on the southern side of the island (Figure 2.4). Situated on an outcrop of Liberta Greenstone, a green tinged volcanic tuff, the southern, eastern and half of the northern slopes are all but inaccessible, with steep to perpendicular cliff faces protecting the fortress. The remaining northern and western facing slopes are protected by thick walls built of the local greenstone looking over

steep, but passable, grades. The circuit wall encloses a 33,000-square meter area with an irregularly built wall including several triangular bastions covering the eastern, northern, and western sides of the fortress. Inside the fortification, an archaeological survey in 2015 found the ruins or footprints of 45 identifiable structures ranging from gunpowder magazines, cistern and water catchment complexes, barracks, and latrines (Murphy et al. 2015). While a detachment of Regulars was occasionally stationed at the fort, most of the buildings were built for sheltering Antigua's white population during times of need.<sup>24</sup>

Construction with conscripted enslaved Africans was already underway by 1689 and continued, sometimes intermittently for decades (Nicholson 1994a: 6). During his tenure Governor Daniel Parke (1706-1710) fought against what he saw as wasteful spending pulling his support for the project to focus instead on field fortifications around St. John's (Webb 2013: 177). Upon Parke's assassination, Monk's Hill received renewed interest. During an invasion scare in 1711, it was reported that "what number of Masons shall be deemed necessary to be employed on such services at Monk's hill as shall be appointed them by the Comm.ors [commissioners sic.] of said hill, but particularly that a wall be runn a Cross the westernmost part of said fortification," (CO 9/2: 12 June 1711). A 1713 map shows the complete extent of the fortification with its circuit wall intact, suggesting that the fortification was more or less finished by then, however, temporary acts extending the work on the fortress continued until 1721, implying that further work was still necessary (CO 700/ANTIGUA1; CO 8/4: 143). Indeed, the

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<sup>24</sup> Small detachment in this case means "Twelve private men, 1 Serjeant, 1 Corporal, 1 Drum and an Officer," (NAAB 319: 8 November 1715). While exact numbers at other times is difficult to come by it is likely that there was never more than one company (60 men) stationed permanently at Monk's Hill, with most the soldiers quartered in the barracks at Rat Island and later in St. John's proper, or after the 1780s at nearby Shirley Heights. A letter from 1781 transcribed in full but with an unknown author cited in Oliver (1899: cxxvi) states that "A Company from one of the Regiments being generally stationed [at Monk's Hill] for a month at a time."

significance of the site is encapsulated in Governor William Mathew's assessment of the fortification, stating,

This fortress, my Lords, is built on a most ill shaped piece of ground, the summit of a hill, not quite out of command of two others, that lye easterly, and west southerly from it, and the Antigua engineer has so well follow'd the irregular shape of the hill, that the fort is as ill shap'd, and has as little artificial meaning for defence, as ever was contriv'd. However, 'twas so much the darling of the Island, that no summes have been spair'd to make it what it is (CSPWI v.41, pp. 199-242).

While Mathew did mention that the walls, in his estimation, were well built, no thought was given to any outworks or additional trenches to keep an enemy away from those walls. As a fortification it is so irregular, that the lines of fire are neither overlapping, nor properly over the vulnerable approaches.<sup>25</sup>

Nevertheless, as a fortification, Great George Fort on Monk's Hill remains an important consideration in evaluating Antigua's defenses, forming a tactical lynchpin in keeping an enemy at bay until relief arrived, or the enemy withdrew. For Antiguanians, the fort represented the ultimate safety blanket: a place to run and to protect wealth from the predations of the French. The mere presence was likely of comfort to the general white population, even if militarily, the fortification was neglected<sup>26</sup> and too small to maintain the white population for any length of time, let alone additional persons such as "trusted" enslaved Africans and their families. The

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<sup>25</sup> Governor Mathew estimates that by 1734 the Antiguan government had sunk £50,000 Sterling into the Monk's Hill project (CSPWI v. 41, pp. 199-242).

<sup>26</sup> The neglect in maintaining the fortification is best captured in the events leading up to the 1736/37 Prince Klass Conspiracy. In 1736, the Assembly wrote that Monk's Hill "is now without Gates," having likely either rotted away, or perhaps even never been erected due to graft (NAAB 323: 5 October 1736). The Council responded that they were aware of the situation, and added that the guard at Monk's Hill had mysteriously been removed "many Months past," leaving the 8-acre fortress in the hands of "no more than three Montrosses," despite the fact that the Grand Magazine was full of gunpowder. With the Conspiracy unfolding around them, the Council also noted that "two or three Negroes were caught in the night coming into the Fort, arm'd with Cutlases," in essence confirming a key provision of the plot: using gunpowder to blow up a ball held at the Governor's mansion (NAAB 323: 5 October 1736). For a full treatment of the events see Gaspar 1984; 1985; *A Genuine Narrative* 1972 [1737].



Original in the John Carter Brown Library at Brown University

Figure 2.5: "Planting the Sugar-Cane," by William Clark (1823). Courtesy of the John Carter Brown Library.

vast sums of money sunk into the project throughout the seventeenth and eighteenth century speak to the degree to which this fortress played a central role in the contemporary elite cultural imagination. Historic visitors, without fail, commented on the fort in their letters and diaries, sometimes derogatorily.<sup>27</sup> It is prominently located, visible from most of the island and provided a backdrop to many artists' renditions of the Antiguan countryside. Despite the negative assessment by visitors and engineers, the Antiguan government continued to underscore the fort's importance for the continued survival of the island's society. The trust in Monk's Hill which pervades throughout the Assembly Minutes can only be read as an overconfidence in a defensive work built and maintained by those who could not properly evaluate their situation.

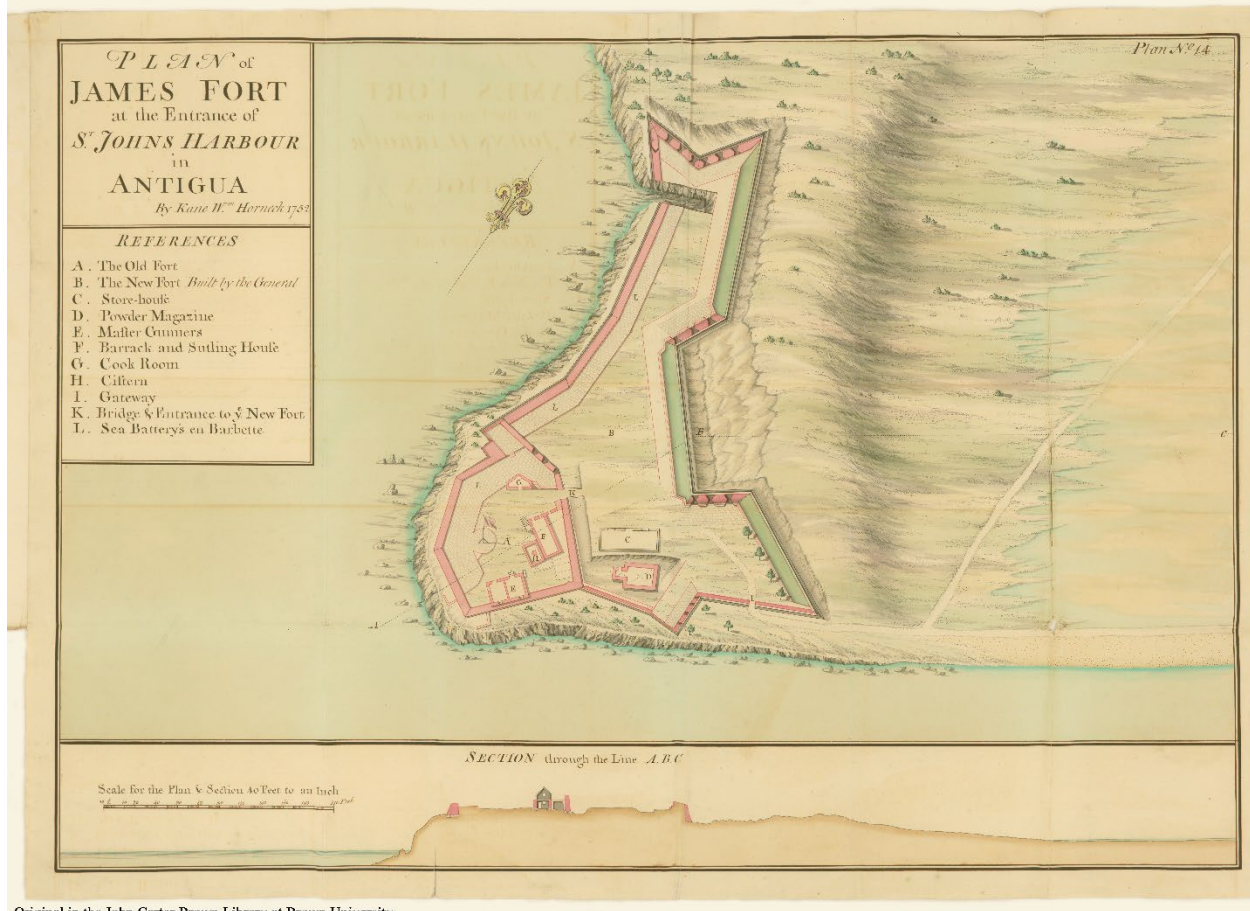
<sup>27</sup> For example, see William Clark's "Planting the Cane," *Ten Views of Antigua* 1823.

Indeed, this cultural connection continues to pervade interpretations today, with popular and scholarly interpretations declaring that Antigua was saved from invasion merely by the powerful position of the fortress (Buisseret 1973; Dingwall 2012a; 2012b); an interpretation which does not stand up to analysis.

#### *Fort James and the Defense of St. John's Harbour*

Fort James (Figure 2.6) follows a similar historical trajectory to Monk's Hill, but due to its proximity to St. John's town, is more consistently visible in the historic records, appearing in peacetime deliberations about its use as the town's arsenal, and a secondary barracks for a small detachment of soldiers, as well as during wartime. At 6,562 square meters, Fort James exhibits the best visual examples of different fortification elements, including formal bastions, a long seawall battery, and an additional crownwork. These elements were common in harbor fortifications at the time, thus conforming to what visitors might expect of a coastal defensive feature and fulfilling the necessary aesthetic accompanying a major port town.

An Act in 1683 called for the "erecting a Fort on the utmost point on the North Side of the Harbour at St. John's," as the town surpassed Falmouth as the primary port on Antigua (CO 8/1: 47-49). Little is known about the first iteration of this fortification, although Nicholson (1994a: 10) suggests that it was an earthworks construction; it was already being repaired in 1685 (CO 155/1: 16 September 1685), and a more formal stone structure being erected in the 1704 island wide expansion. Elements from the 1704 iteration of the fortification are still visible, today, and were incorporated as the fort expanded (Buisseret and Clarke 1971). In 1730, the matrosses at the fortification sued for access to the adjacent land in order to lay in provisions, claiming that in the original bequest, this land was meant to support them. The legislature agreed, ordering that the land be surveyed and used for provisioning the men garrisoning the fort



Original in the John Carter Brown Library at Brown University

Figure 1.6: “Plan of James Fort at the Entrance of St. John’s Harbour in Antigua,” by Kane William Horneck (1752). Image courtesy of the John Carter Brown Library.

(Laws of Antigua: Act No. 187: 251-252). The War of Jenkin’s Ear and the Spanish threat to Antigua’s shipping lead to the expansion of Fort James, establishing the old fort as an inner citadel, and expanding the seawall battery and additional landward facing defenses to provide additional protection to the island (NAAB 324: 1 February 1739/40). In addition to the physical expansion of the fortification, Fort James became the principle gunpowder magazine for the militia, and the primary repository for the gunpowder collected as tax. A second, larger, and bombproof magazine was built within the fortification. The legislature considered this expansion so successful that they decommissioned the battery at Cripplegate, removing those

guns into the expanded Fort James later that year (NAAB 324: 14 March 1739/40).<sup>28</sup> As a sign of how important this fortification was to the plantation elite, the only discussions of formal military engineering beyond parapets and embrasures found in the Assembly Minutes comes from the construction of Fort James, including describing the horn work to the north of the fortification, connected by a narrow, fortified causeway, and a detached ravelin, planned to guard the landward approach to the fort (NAAB 324: 24 November 1743). The ravelin plans were rejected outright by the legislature, suggesting that it was too expensive and unnecessary to protect the landward approaches to Fort James. Their concern was only on the protection of trade and the entrance to St. John's Harbour from the water, focusing their planning and efforts to construct the new seawall battery and additional horn-work.

Fort James' central location, visible from the courthouse in St. John's where the legislature met, means that it remained a key indicator of the health of Antigua's fortifications. If something was wrong at Fort James, then the legislature would call for a wider investigation into the rest of the island's defenses (e.g. CO 155: 16 September 1685; CO 9/2: 17 March 1711/12; CO 9/6: 21 April 1720; NAAB 323: 22 November 1734; CO 9/20: 13 April 1757). Indeed, the most visible message relating to how important this work was to the plantation elite in their conception of the martial landscape, is the dedication stone located along the western outer bastion, along the road up into the fort. The dedication reads:

This First Stone was laid by  
WILLIAM ISAAC MATHEW  
The Right Worshipful  
The Provincial Grand Master  
With his Grand Officers  
And  
The Right Worshipful Masters and  
The Wardens and Brothers

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<sup>28</sup> This abandonment is borne out in the later Horneck watercolors which identifies all of the fortifications around St. John's, with the Cripplegate nowhere to be seen (1752: Plan No. 15).

Of  
The three Lodges of free and accepted Masons  
Of Antigua  
November 15, 1739<sup>29</sup>

The only other fortifications dedicated with Masonic rituals are the battery across the water at Loblolly Bay which dates to the Seven Years War (CO 9/22: 17 March 1757; Figure 2.7), and Fort Barrington at the Cripplegate after its expansion during the American Revolution. For the island elite, these three fortifications, anchored by Fort James, formed the key to defending their accumulated wealth in St. John's town, and drew their focused attention away from other parts of the island.



*Figure 2.7: Masonic keystone at Loblolly Battery. The inscription reads, "J. Gordon" and includes masonic symbols still visible in the upper left, upper right and lower left corners: a pair of trowels, a crescent moon and a set of scales, respectively. The lower right corner was too heavily weathered to discern any additional symbols. Photograph by Christopher K. Waters.<sup>30</sup>*

<sup>29</sup> As recorded in Nicholson (1994a: 12). The inscription has since eroded and is illegible.

<sup>30</sup> A special thank you to the Mendes family for giving me permission to work on their property.



### *Coastal Defense: Forts, Platforms, and Coastal Batteries*

Platforms, also known as forts or batteries, dotted Antigua's coastline. These defensive features differ from the large fortifications in size, but also somewhat in function. These coastal fortifications were small concentrations of cannon, often augmented with stone platforms and parapets, with all of the violent power projected over the water: outwards, towards a foreign enemy. Antigua had at least 17 of these formalized platforms throughout its history along the coastline, but concentrated around the principle trading towns laid out by law in 1675: St. John's, Old Road/Bermudian Valley, Parham, Falmouth, North Sound and Bridgetown (Act No. 35 in Legislature of Antigua 1805: 63-66). Several of these were quite powerful on paper, with Fort Berkley in 1752, guarding the entrance to English Harbour mounting 19 cannon, 15 of which were large 24 pounders, with a further battery of 10 guns belonging to the Navy. Others, such as Fort Harmon on the windward side of the island, on "the Fronteer" (CO 9/2: 7 April 1711) mounted only three 9-pound cannon, or Old Road fort at Carlisle Bay with 8 cannon, the largest being only a single 12 pounder, and all were considered unserviceable in 1752. Even running up the coast north of St. John's and the lynchpin at Fort James, all of the three platforms of Fort Hamilton, Corbinson Point and the Half Moon Battery at Dickenson Bay were armed only with six pounders, and only four of the seven consigned to Corbinson Point were considered in working order (Horneck 1752: Plan No. 17; Figure 2.8).

The Horneck (1752) watercolor collection gives a snapshot of Antigua's small forts which reflects the apathy which the Antigua Legislature, often led by the Assembly, had for spending money and cutting into their profits.<sup>31</sup> Between the sixteen platforms, of the 133 cannons enumerated, only 67 were considered "serviceable." When considering that 41 of the 67

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<sup>31</sup> The exception being Monk's Hill.

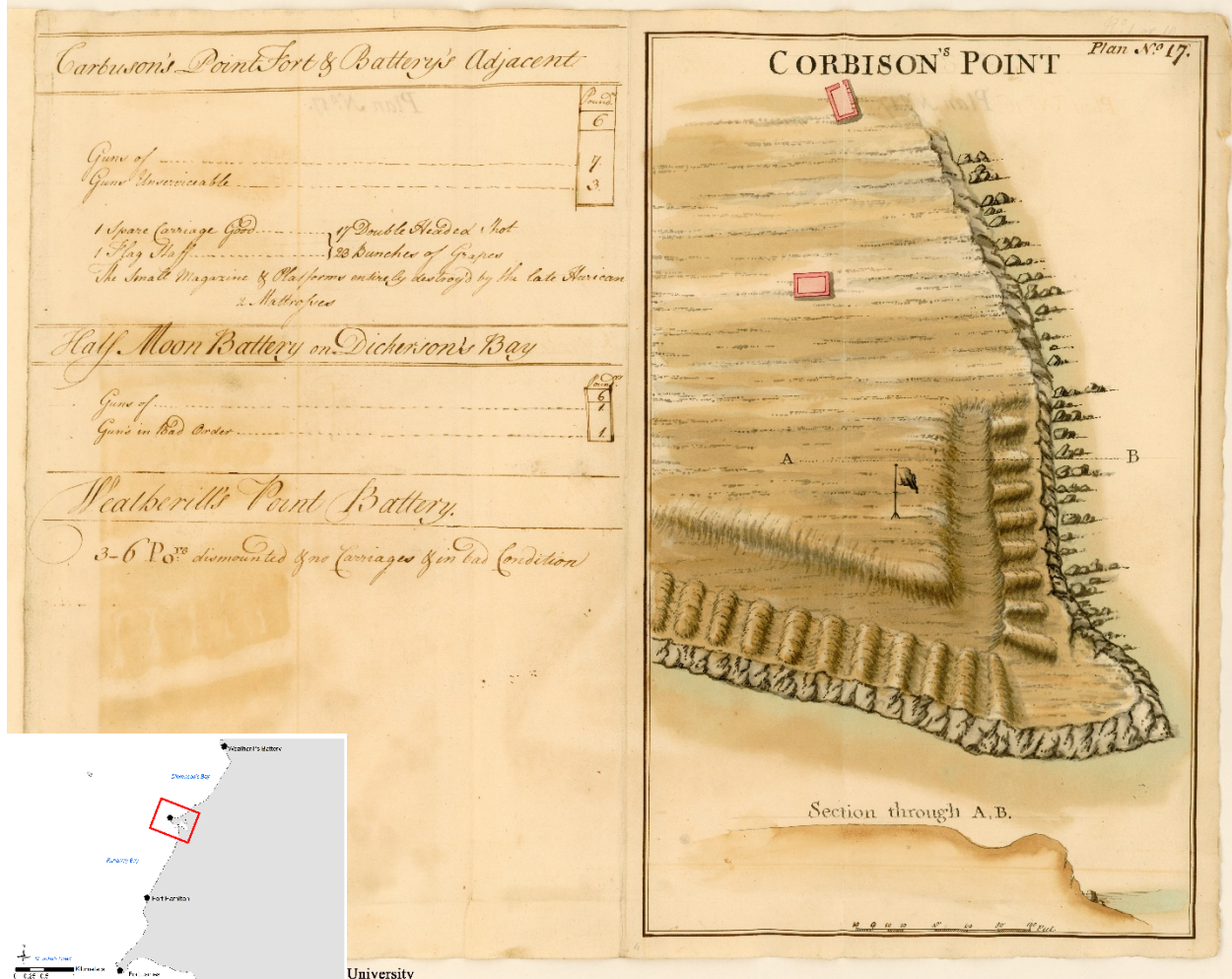


Figure 2.8: "Corbison's Point," by Kane William Horneck (1752). Courtesy of the John Carter Brown Library. Inset illustration by Christopher K. Waters. Note how many cannons were considered unserviceable at Corbison's Point, Dickenson's Bay and Wetherill's.

serviceable cannons were at the four fortifications protecting the Royal Navy Dockyard at English Harbour and on loan from the Ordnance Department for explicitly that purpose, the ability for Antigua to protect its long, heavily indented coastline becomes even more difficult. To make matters worse, many of those did not have carriages to support them: a chronic problem in the tropics where organic materials such as wood degrade quickly though weathering, rot and termite infestations. 1752 should not be seen as an extreme example of the difficulties in maintaining the network of small fortifications. In 1701, the four reported platforms at Old Road, Willoughby Bay, Falmouth and Parham had about six guns each, all 3 pounders, and

Parham had none (Oliver 1899: lxxii). The March 3, 1714/15 report on fortification (NAAB 319: 124-126) describes the conditions of the largest of the fortifications, including Fort Charles, Fort William, Parham Platform and Old Road. While at the end of the War of Spanish Succession (1701-1714), this list shows a remarkable degradation of defense; especially considering the remaining islands in the Leeward Island Colony—St. Kitts, Nevis and Montserrat—had all been invaded. The threat of invasion on Antigua weighed heavily on the minds of the Council and Assembly, with periodic alarms, threats and raids taking place. The near constant threat is neatly summarized in a 1706 letter to Queen Anne, stating:

tho very sensible of the miserable circumstances wee ly under by means of the frequent Insults of the French, by which our Neighbor Islands of Nevis, & St. Christopher have been brought to ruine, & unless speedy, & effectual measures be taken to preserve us for the future, Wee in all probably must allso fall aprey to our Enemies (CO 9/1: 35)

Indeed, during this time, there are numerous raids by French privateers, both at sea and on land, resulting in material losses to the people of Antigua. The coastal platforms supported by the guard houses were the primary bulwark against a raid, or limiting a raid's impact.

The number of raids taking place on Antigua is unknown.<sup>32</sup> The only records of raids come from either mentions in passing, in petitions for compensation for lost property from a

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<sup>32</sup> One particular incident from 1712 has received scholarly interest (Sheridan 1974: 117-118; Weaver 2002: 3). A French fleet arrived off the coast of Antigua and, according to Governor Douglas (CSPWI 11-18 August 1712) “endeavored to land on Sunday morning, July 6<sup>th</sup>, at Willoughby Bay and the Mamora, but stood off again upon their perceiving a few horse and foot in some readiness to receive them.” He continues, recounting, “On Munday morning they stretched along the Leewardmost part of the Island and besides a great many sloops and small vessells with small boats for landing men we reckoned one 70 gun ship (with 64 guns mounted called *Le Neptune* as our spy and prisoners have since informed us) two ships of 50 guns, one ships of 40 guns, three ships of 32 guns.” The fleet then moved off and sacked Montserrat. Douglas, writing to the Board of Trade and Plantation, is probably exaggerating the direct threat to Antigua. First, given the prevailing winds and the origin of the fleet from Guadeloupe, it would have been incredibly difficult for the French warships to sail close enough to Antigua's shoreline to offer any kind of support. Second, this incident received no attention in the Antigua Assembly and Council Minutes, suggesting that the French fleet stood off at a considerable distance, appeared menacing, however, did not approach close enough inshore to be considered an invasion threat, despite the estimated 3,500 troops carried on board. Antigua at this time had less than 1,200 militiamen and perhaps 400 soldiers stationed on the island, along with between 1,000 and 2,000 enslaved men under

raid<sup>33</sup> or in vague terms alluding to attacks, such as “The Frontiers, and other parts of the Island Lying naked, and Exposes to the frequent Incursions of the Enemy for want of Standing Guards” (CO 9/1: 8). These guards, a line item in the proposed budget in the official records, were men hired to live at these fortifications and maintain the equipment and cannon stored there, and in times of war, provide the professional backbone of a defense. Trevor Burnard’s thesis (2015: 53-98) on violence in the plantation system rests on determining that Caribbean islands attracted former military men with a predisposition for violent behavior and military training. Artillerists were considered professional soldiers and required a certain amount of skill and knowledge in the martial arts beyond the mass infantry tactics of the seventeenth and eighteenth centuries, and were found both on land in siege trains, but also aboard most sailing vessels (Black 1994; Buckley 1998: 72; Chapman 2006 [1768] Maurice-Jones 1957: 3-4). Exposure to the technicalities related to smoothbore artillery, then, is not outside the realm of possibility for many white men traveling to the Caribbean. Drawing from this pool, men were hired on as gunners and gunner’s mates (also known as matrosses), rewarded with a small salary and access to provisions provided by the Antiguan government. They were also exempt from serving in the militia and did not have to report to monthly exercises and drills.

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arms, which may have also contributed to the French leaving Antigua alone, however, that is more difficult to prove (NAAB 316: 2 February 1701/2; see also Voelz 1993). On Montserrat, however, the French knew the island was lightly defended, with a significantly smaller population, and they plundered some £180,000 worth of valuables, including 1,200 enslaved Africans, and dismantled all of Montserrat’s defenses before leaving the devastated island.

<sup>33</sup> Determining raid events is difficult historically and archaeologically impossible. The material signature of a raid—maybe a destruction horizon—can come from a number of different accidental and intentional acts which do not require an outside attack. Historical references to specific events are limited to comments in the Calendar of State Papers and, more generally, rewards or compensation given by the Antiguan government after the fact. Property lost during a raid was compensated at value out of the public treasury (e.g. CO 9/2: 27 March 1711; CO 9/2 19 August 1711; NAAB 319: 18 August 1716; NAAB 324: 1 September 1747). Another source comes from acts of valor were rewarded financially, such as Cola, an enslaved man who raised an alarm and prevented the privations of a French raiding party (NAAB 314: 13 July 1697). For his service, Cola was granted his freedom and an additional £40 Antigua Currency.

## *Guard Houses*

Guard Houses have a significantly more nebulous historical and archaeological signature than the larger fortifications on the island. Guard Houses, or as Governor Mathew describes them, “look outs,” formed the core of Antigua’s ability to signal alarms and muster the militia and other forces to counter external threats (CSPWI v.41, pp. 199-242). Unlike the platforms or other fortifications on Antigua, Guard Houses, due to their simplicity of mission, are remarkably similar. They consist of a rectangular stone, one room buildings between 11.78 and 30.6 square meters, containing only one room (Figure 2.9). Adjacent to the structure is a flattened area for a small signal cannon.<sup>34</sup> Based on cartographic evidence, these fortifications were spaced fairly regularly along the coastline and often flanked larger fortifications. This is especially true of the west and south coasts, stretching from St. John’s Harbour to English Harbour with ten Guard Houses spaced between five larger platforms. Along the shallow waters between the offshore islands between Parham and Fort Hamilton in the east, Guard Houses exclusively protected the coastline, reflecting the inability for larger vessels to navigate between the offshore islands. It is only along the east coast where few fortifications exist, with only two Guard Houses historically built between Fort Harmon and Fort William. The regular presence of these Guard Houses on the landscape speak more to the idea of a holistic defensive strategy than any of the larger fortifications on the island, making their spatial distribution and archaeological and historical visibility an integral part in interpreting Antigua’s defense network.

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<sup>34</sup> In 1744, contracts were let out for new guard houses, mandating specific dimensions for the physical structures, ranging from 12 feet square at Crabb Hill and Fisher’s Point, to 14 feet square in the North Sound and at Pearne’s Point, 16 feet square at Flat Point, and finally the largest structure 26 by 12 feet at Slippery Rock (NAAB 324: 1 June 1744). The farther from St. John’s Town and the center of the island, the smaller the Guard Houses got, suggesting a specific tactic of protecting the most productive areas of the island with the largest plantations.



*Figure 2.9: Remains of the Guard House at Thomas Bay on the western side of the island first built around 1700 and continued to be used until the mid-eighteenth century. Photography by Christopher K. Waters.*

Nicholson describes Guard Houses in Antigua as appearing “at some remote strategic outpost as a headquarters for a patrol, and a cannon might be mounted on “earthworks,” (Nicholson 1994: 2). From the beginning of Antigua’s defensive policy in the 1670s, Guard Houses formed the initial protective shell against incursion, especially from indigenous Caribs until the beginning of the eighteenth century. Their mission was to watch and warn, rather than to engage and defeat an enemy through a feat of arms. Alarms by flags or cannon fire would alert the next guard house or fortification along the coastline, who would repeat the warning, thus raising an alarm across the entire island. By 1778, this signal network was enhanced, incorporating highpoints throughout the island including windmills, fortifications and the tops of certain mountains, allowing messages to pass from the southern end of the island to St. John’s in

under 10 minutes (NAAB 329: 3 September 1778). Staffed in times of war, these positions could watch the horizon for approaching ships and warn of a possible attack.

As these features were small and remote, their archaeological visibility is limited. For this project, four Guard Houses were located and identified, including one which was archaeologically unknown prior to this study, of which three were mapped and surveyed: South Guard House, Thomas Bay Guard House, and Rendezvous Bay Guard House.<sup>35</sup> Surface collections at the Museum of Antigua and Barbuda were also analyzed from Pearne's Point, South Guard House, and Rendezvous Bay Guard House, and another collected from Thomas Bay Guard House. Notably, the historical visibility shrinks rapidly, from irregular individual mentions between 1670 and 1720, to only appearing in enumerations of Antigua's defenses or on historic maps thereafter.

Each Guard House is situated on a prominent buff, with sightlines up and down the coastline and within visual range of the next guard house or fortification. This latter feature ensured that each guard house would remain in communication with its neighbors. The ability to see and pass messages along the coastlines were especially important tasks along the southern and eastern coasts. These are rural areas of the island, and the coasts most likely to observe approaching fleets from the south: specifically, French islands and the possibility of an attack. A number of French fleets passed through the channel between Antigua and Montserrat, each time seen from these Guard Houses and evoking panic amongst the Antiguan population.

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<sup>35</sup> The forth, Pearne's Point, was visited and identified in 2015 inside of a new development along Pearne's Point and Five Island's Harbour. Permission to map the site was not given. Pictorial and anecdotal evidence for guard houses at Neck of Land and Soldier's Gut were also collected, but permission to visit the former was not given, and the latter destroyed by development in the 1980s. Access to other historically known sites was further limited by private property restrictions and development.

The strategic utility of Guard House sites lies in their ability to pass messages: as fortified sites they offer no defensive augmentations other than the stone from which the hut is built. Like the other fortifications, the Guard Houses were erected by contracting individuals willing to take on the project. In the rapid construction phase during the War of Austrian Succession (1740-1748), several new guard houses were commissioned around the island, ranging in size from 12 feet square at Crabb Hill and South Guard, to a much larger structure at Slippery Rock ordered 26 feet long and 12 wide. The size difference reflects their locations: those which needed only a lookout were significantly smaller, while those considered rest stops for patrols required more room to house those men. Each of these projects were given to a member of the Assembly to build and charge the Treasury for the materials and labor costs accrued for the projects (NAAB 324: 1 June 1744). South Guard House, contracted to be 12 feet square and awarded to John Brooke, cost the Antiguan government £128.11.7 ½ (NAAB 324: 20 November 1744). Crabb Hill, which was contracted to Henry Douglas (and subcontracted to a William Furlong) and built to the same specifications as South Guard House, cost only £72.14 (NAAB 324: 20 November 1744; NAAB 324: 16 January 1744/45). The cost difference likely reflects the relative locations of each guard house: South Guard House being along the steep, rural southern coast, virtually inaccessible by the water. Crabb Hill, however, appears to have been along the main road between Old Road and St. John's and significantly easier access by the water, cutting transportation and labor costs.

## **Conclusion**

Antigua's defenses grew in fits and starts: driven by situational expediency rather than long term strategic or tactical considerations. Some of these fortifications, like Great George Fort and Fort James, replicate the military aesthetic of the seventeenth and eighteenth centuries. Others, like



many of the platforms distributed across the landscape, suggest that coastline vulnerability—at least in certain parts of the island—were priorities for defensive structures. The government also knew that spreading alarms and providing anchor points for militia and patrols, as well as protecting shipping, required coastal defenses. These manifested in coastal fortifications of various sizes and a string of guard houses to keep watch over the coastlines. Tactically, the Antiguan elites knew that the only way to stop an invasion was to stop one on the beaches: if an enemy gained a foothold, superior numbers would quickly overrun opposition and seize the island. Knowing where to march and deploy soldiers, militia and armed enslaved persons, and to rapidly move them into position to affect the “best posture of defense,” relied on raising alarms quickly (CO 9/1: 23 August 1704). Guard Houses served as repeater stations and lookouts spread these messages, calling out the militia and what soldiers were stationed on the island at the time. This is the martial landscape in which we can start to evaluate the efficacy of Antigua’s fortifications as external defensive structures and internal security measures.

The above fortification descriptions are meant to give an idea as to the scope, style and policies which went into creating Antigua’s fortification network. This descriptive context lays out the groundwork for assessing the viability of Antigua’s fortification network. The Caribbean’s fortifications are recently described as “monumental architecture,” (Armstrong 2013: 529), “renowned fortresses,” (Watters 2001: 89) and “impressive batteries,” (Buckley 1998: 71-72). Buckley and Watters both directly worked with examples from Antigua in their assessment of these fortifications, and these terms can be directly applied as descriptors for the defense network of the island. Nicolson (1994: Foreword), commenting directly on Antigua’s forts, states categorically that Antigua was “one of the most heavily fortified places on earth.” With some 56 fortified points around the island, it may seem that these fortifications represent an

impressive array of military architecture. However, is this the case? The next chapters assess two of the leading hypotheses surrounding fortification sites in the Caribbean: that they were instrumental in promoting external defense, and/or that they enhanced internal security over the enslaved populations of the Caribbean. The results reveal more about the power of the local Antiguan institutions and the will of the island's elites to define the landscape to their advantage, rather than a holistic concept of security.

## Chapter 3: Islands, Gunpowder, and Defensibility

*By the several reports of the officers and Gunners of the forts it appears that many Warlike implements are wanting, and that these which are necessary may be supplied.*

Antigua Assembly to the Antigua Council, 29 January 1756<sup>1</sup>

### Introduction

Germane to this project is understanding the consideration and reason for Antigua's martial landscape in the seventeenth and eighteenth centuries. Several assumptions about defense, and what constitutes a defensive position plague our understanding of defensive features (Keeley et al. 2007). Kyle Bocinsky (2014), criticizes the nebulous definitions arising from claims of defensibility, comparing it to Chief Justice Potter Stewart's flippant definition of pornographic materials: "I cannot define it but I know it when I see it." Several researchers, evaluating defenses from local to regional scales across the globe, have developed nuanced approaches to quantifying defense and qualifying the archaeological sites where they work.<sup>2</sup> Nevertheless, how we go about defining defensibility, and the affordances we choose are important. For instance, Andrew Martindale and Kisha Supernant (2009) made an effort to define variables associated with defensibility in order to empirically assess the motivations behind First Nations settlement pattern distribution across the landscape of British Columbia. Their first assessment defined and tested four specific attributes which they thought pertinent to deciding whether a site could be considered defensible: elevation, visibility, accessibility and area. The results where a defensibility index where they tested several sites to see if there was a shift in settlement patterns

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<sup>1</sup> CO 9/22: 29 January 1756.

<sup>2</sup> Keeley (1996), is credited with initiating the most recent conversation around defensibility in archaeology (see Allen and Arkush 2006). This conversation continues, including a recent 2018 Society for American Archaeology Annual Meeting Session on "The Landscapes of Warfare: A Comparative Perspective" where questions of how to evaluate defensibility of sites are still litigated.

to sites with more defensive attributes with the intensification of warfare.<sup>3</sup> Bocinsky (2014) took this idea and developed a GIS based analysis using an R statistical algorithm to test entire landscapes for their defensibility and match that with a database of archaeological settlement sites in the Pacific Northwest. His defensibility index focused on elevation and visibility. Their research demonstrates that applying careful consideration of variables to defensibility affords opportunities to assess archaeological sites within broader landscapes reflecting historic motivation and decision-making processes based on the need for defense.

In this chapter, I first discuss the applicability of Historical GIS as an underlying methodology and theory for building a model to study the defensive vulnerabilities that Antigua faced in the seventeenth and eighteenth century. Thereafter, I develop the variables used for this defensibility study and combine them to identify which stretches of Antigua's coastline were more vulnerable to seventeenth and eighteenth century sailing vessels. I conclude by evaluating the model's results with the documentary records of Antigua's legislative bodies in defining which parts of the coastline represented the greatest threats for invasion and raiding by Antigua's enemies.

### **Historical GIS and its Applications**

The use of Geographic Information Systems (GIS) geodatabases as a way to organize and analyze spatial data in archaeology is a technology that has long been in use. As this is primarily an investigation into past spaces, this project relies heavily on archaeological survey and integration of spatial data into a GIS environment. The use of GIS in archaeology as a method of storing and analyzing space is well established (Altendorfer and Maschner 1996; Chapman 2006;

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<sup>3</sup> Andrew Martindale commented that this was a place to start, rather than an absolute model. He also suggested that area was not a particularly good variable and that he and his coauthor were working on an updated version of the article (Martindale pers. comm. 2017).

Conolly and Lake 2006; González-Tennant 2016; Reid 2008) but not entirely uncontentious (Tilley 2004: 218-219; Given 2004: 17; for a discussion see Conolly and Lake 2006: 3-10; Hacıgüzeller 2012). The contention lies largely between whether or not human activity can be quantified and visualized using statistical methods employed in a GIS geodatabase. The specter of the New Archaeology positivism developed in the 1960s and 1970s, was enough to shun these kinds of methodologies as atheoretical and reductionist (Hacıgüzeller 2012: 246; Tilley 2004; 2008; Given 2004). The theoretical debate surrounding the use of GIS in archaeology, then, remains caught between these two camps.

Mark Gillings (2012), however, offers an alternative to this impasse. He leverages J. J. Gibson's concept of affordances in the biological world, which postulated that any given animal perceives and encodes its perceptions of the world around it in a specific way, thereby building a world image around it, rather than merely reacting to a given set of environmental stimuli (resources). Affordances were further refined as describing the relational: where the affordance and the action are contingent on each other. In essence, it is a measure of possibility and potential reactions within a given environment without privileging one specific reaction over any other. Its application in archaeology, then, is to establish constraining environmental parameters in order to better understand the geographical inputs into human choice (Jonitz and Timpf 2015; Knowles 2000: 452). For this project, GIS is used to analyze the environmental conditions of defense in Antigua in order to analyze decision making processes by the Antiguan legislature while maintaining that this model is merely a representation of possibility, and not conclusive by itself. The development of the model, therefore, affords us the opportunity to establish which historic parameters might have been used to understand Antigua's coastline in terms of its

vulnerability to an outside attack, and assess the manifestations of the policies enacted by the legislature in reference to the discovered vulnerabilities.

Much of the data incorporated into the GIS model is derived from archival and historical sources. While primarily interested in establishing spatial relationships, new advances in computing have allowed for greater integration of disparate data normally seen as incompatible (Gregory and Geddes 2014: xiv). Starting around 2000, the subfield of historical GIS, or humanistic GIS (HGIS), developed to better understand “space and its human manipulation,” through history by incorporating archival materials and other analog sources previously considered incompatible with GIS analysis (Knowles 2000: 453; see also Debats and Gregory 2011; Crespo Solana 2014: 8-21; Yuan 2014). This field has continued to grow, effectively demonstrating that digitizing historical data can be used in studying the past, especially in relation to questions about demographics, health, and urban settings, and thereby demonstrating the validity of this approach (Beveridge 2014; Knowles 2017; Meeks and Mostern 2014; Schwartz and Thevenin 2014).

Archaeologists have intuitively been incorporating HGIS theory into GIS models, but have largely refrained from engaging in the deeper implications of this kind of archive/digital interface (Hacıgüzeller 2012). The GIS modelling for this research involves deriving significant information from archival sources in order to better understand the motivations and decisions behind how Antigua’s fortifications were established across time. While this pulls on spatial information derived from surveys, additional factors, such as historic sailing capabilities and cannon ranges are incorporated into the GIS modelling to better determine which parts of Antigua’s coastline were most vulnerable, juxtaposed with where the fortifications were built.

## **Establishing New Variables: Historic Sailing and Coastal Defenses**

To date, defensibility models and the broader archaeologies of war focus on terrestrial sites and terrestrial attacks using pre-gunpowder technologies.<sup>4</sup> While the defensibility model proposed by Martindale and Supernant (2009), and expanded upon by Bocinsky (2014), demonstrated above have some utility, namely in investigating possible surveillance structures on the landscape, their applicability during the Age of Sail in maritime contexts requires considerable reevaluation (see Appendix B). Specifically, the difference here lies in movement across space. How bodies move, and where they move, are important considerations to the archaeological landscape: places which are heavily trafficked occupy different cognitive spaces than those which are avoided, or where access is limited. Sites are defined by movement within, across, and outside of those spaces. For instance, individuals attacking a fortified terrestrial position are constrained by different types of barriers to pedestrian movement such as cliffs, walls, and slope. These barriers can be mapped, and pedestrian flows in peacetime, and chokepoints in times of war, can define spatial cultural priorities (McGuire and Villapondo 2015; LeBlanc 1999; 2006). Interpretively, this speaks to broader cultural constructions and organization of space, reflecting ideologies of landscape use which may not be evident at smaller scales.

Movement on the water, on the other hand, is simultaneously liberating—the open ocean has no barriers—and more constrained, with reliance on wind for direction and speed, subject to currents, limited by the experience, ability and makeup of a crew, and exposure to catastrophic coastal dangers such as reefs, shoals, shallow water, and offshore islands. Thus, knowledge of

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<sup>4</sup> There is a rich literature on defensibility in pre-gunpowder societies which continues to develop. For examples, see Arkush and Allen 2006; Arkush 2011; 2006; Bocinsky 2014; Borgstede and Mathieu 2007; Ferguson 2006; Geier et al. 2011; Haas 2001; Johnson 1999; 2003; Keeley 1996; Keeley et al. 2007; LeBlanc 1999; 2006; Martindale and Superdant 2009; McCool 2017; McGuire and Villalpondo 2015; Redmond and Spencer 2006; Sakaguchi et al. 2010; Skowronek and Ewen 2006; Thurston 2001; Tipping et al. 2014.

the local conditions, just as much as mastery of sailing, provide a major departure point for how we might approach, and in this case, attack an island. Unfortunately, much about handling sailing warships is sequestered into specialist literature, and largely poorly explored by historians and archaeologists alike who approach a set of well-worn documents and stories related to best practices, often with limited knowledge of sailing and the environmental conditions that accompanied those practices. Sam Willis (2008: 5), distills the problem with discussing historic sailing by pointing out that “the intricate three-dimensional business of fighting at sea has been reduced to a sterile one-dimensional narrative,” in most cases. Additionally, within the historiography of naval development in the seventeenth and eighteenth centuries, ship-to-shore engagements are largely ignored for open water naval engagements. Culturally, open water battles is where sailors gained glory, while terrestrial operations lacked the same cultural impact (Black 2004: ix).<sup>5</sup> Even archaeology, a discipline engaged with movement of people and goods through space, and the material signatures which they leave behind, is only just starting to model movement across the water using environmental conditions, rather than schematic drawings of general flows (e.g. Barreau 2015; Hung et al. 2013; Leidwanger 2015; Safadi 2015).

For an island, consideration of where vessels can and cannot reach historically has to be a requirement for understanding the landscape. In a society reliant on regular shipments of provisions and other necessary products to maintain the slave system and continue reaping the

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<sup>5</sup> The exception to this rule is the successful amphibious campaigns coordinated between the Navy and Army during the attack on Martinique and Guadeloupe in 1759, the attack on Quebec in 1775, and the storming of the Palisades during the Battle of Fort Lee in 1776 during the American Revolution (Smelser 1955). Even some of the most famous engagements, the Battle of Copenhagen and the Battle of the Nile, are discussed in great detail as naval engagements, with the shore batteries and fortifications largely forgotten in the background. Instead, the successful repulsion by the original Martello Tower in 1797, and the defense of Fort McHenry in 1812, occupy an outsized role in claiming the superiority of shore batteries over naval batteries (Cheek et al. 2014). These are the exceptions which define the rule: both were attacked by naval forces expecting quick victory and only through the tenacity of the defenders did the naval forces disengage and retreat.



benefits of tropical agroindustrial produce like sugarcane, Antiguan knew about the sea, regardless of whether or not they were sailors. In a world where roads were poor, transportation of heavy bulk items such as sugar, molasses, and rum, moved more efficiently over the water (Thornton 2012: 10). Plate 10, of William Clark's (1823) iconic paintings of the sugar process, *Ten Views in the island of Antigua*, captures this intra-island trade, depicting hogsheads being loaded into small boats on the shoreline before being rowed out to droughers, small coastal craft which would sail around the island to one of the official trading ports on the island (Figure 3.1).<sup>6</sup> The sugar would be taxed at the customshouses there, before being loaded onto larger vessels for shipment to North America or Europe. This coastal traffic operated as the lifeblood for much of the island, shipping large quantities of goods from the plantations to St. John's, Falmouth, Old Road, Parham Town, Bermudian Valley, or Bridgetown. This coastal trade was integral in keeping the local economy moving.

To determine which parts of the coastline were vulnerable, we have to take several factors into account: bathymetry, wind direction, and sailing rigs<sup>7</sup> each impact the ability for vessels to get close to the island without wrecking on the coastline. These are all quantifiable and incorporable into a GIS environment. Many of these factors will necessarily be generalized:

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<sup>6</sup> CO 8/8: *An Act for Encreasing the Number of White Inhabitants in this Island* 11 February 1740/41, describes a drougher as "any Sloop, Shallop, Boat or Vessel commonly called Sugar Droquers or which carry goods for profit here or freight in or about this Island." Poor whites advocated that all of the coastal shipping should be exclusively awarded to white men to the exclusion of enslaved Africans who made up the majority of the crews on these boats, thereby giving them an industry in which they could be competitive in (e.g. NAAB 332: 20 June 1793). Offering the exclusive privilege of shipping based on racial grounds was debated, however, the Antiguan government came to the conclusion that these men were "of little Use in the Defense of this Island," because of a provision in the law which excluded these men from militia duty (*Laws of Antigua*: Act No. 214, 1756). Caught between attracting more white settlement to the island which would increase the number of men in the militia, and the exclusion of an entire industry from participating in military service, the island legislature refused to grant droughing as an exclusively white industry.

<sup>7</sup> Organization and constellation of the sails on a sailing vessel.



*Figure 3.1: "Shipping Sugar," by William Clark (1823). Courtesy of the John Carter Brown Library.*

singular events such as storms or irregular shifts in wind direction could not be historically predicted, and thus deviation from the normal weather patterns in conjunction with a raid or attack are not accounted for in the model. Nor were ships built along the same pattern and could vary considerably in draught based on construction, but also cargo, age, and damage sustained to the hull.

### *Bathymetry*

Bathymetry, the measurement between the water's surface and the ocean floor, is important in considering the physical ability for a vessel to cross a particular part of water, especially shallow water. As vessels extend below the waterline, how much water they draw limits where they can traverse without running aground and suffering damage, if not catastrophic failure. Draught is

dependent on the size, function, as well as national building traditions, with small vessels drawing anywhere from a few feet of water to the largest warships and merchantmen extending well over 20 feet below the surface of the water fully laden (Chapman 2006[ 1768]). Inshore movements by larger vessels are thus constrained by the depth of water. Jeremy Black (2004: 3) rightly points out that with the development of deep water shipping, and especially warships, new paradigms emerged, where “European warships and merchantmen increasingly sailed the oceans, providing the means of power projection, deep-draught European ships, once on their opposite shores, found it difficult to operate in inshore, estuarine and riverine waters,” until the development of monitors and ironclads in the mid nineteenth century. For Antigua, which was historically praised for its many harbors, and lamented for its long coastline full of creeks, bays and inlets, defensive consideration for bathymetry plays a major role in understanding how close warships might get to the shoreline to suppress defenders and support an invading force.

A major limitation in estimating draught comes from the fact that while many vessels were built along patterns, no two vessels were alike. This means that while several vessels might share the same rigging type there was considerable variation in naval architecture. This means that how much water a vessel needed to freely move was dependent on the size of the vessel, rather than on the sailing rig. Chapman’s *Architectura Navalis Mercatoria* (2006 [1768]), is one of the few sources for a broad range of late eighteenth-century vessels, including merchant vessels. His charts in the beginning of his book offer a glimpse at the wide range of vessels which traversed the Atlantic World (Table 3.1). Drawing on his work, we can make certain useful generalizations about draught and size of vessel. Based on his data, and other anecdotal

evidence, vessels generally under 100 tons burthen draw less than 10 feet of water.<sup>8</sup> Whereas vessels over 150 tons draw more than 12 feet.<sup>9</sup> Based on customs data of vessels arriving in Antigua from the first two decades of the eighteenth-century, and from the 1780s, the largest trading vessels were never much larger than 400-tons, likely drawing more than 15 feet of water (CO 10/2; CO 157/1). Warships, on the other hand, drew considerably more water, with the smallest requiring some 18 feet, and the largest well over 20 feet of water to operate safely.

*Table 3.1: Eighteenth century merchant vessel draughts adapted from Chapman's 2006 [1768] Architectura Navalis Mercatoria.*

<b>Type</b>	<b>Rigging</b>	<b>Rigging Type</b>	<b>Tonnage</b>	<b>Draught in Feet</b>
<b>Bark</b>	Sloop	Fore-and-Aft	41	6.12
<b>Catt</b>	Sloop	Fore-and-Aft	43	7.12
<b>Pink</b>	Sloop	Fore-and-Aft	52	8.33
<b>Frigate</b>	Sloop	Fore-and-Aft	65	8.75
<b>Bark</b>	Sloop	Fore-and-Aft	84	8.583
<b>Pink</b>	Briggantine	Square	89	9.67
<b>Catt</b>	Sloop	Fore-and-Aft	93	9.12
<b>Frigate</b>	Schooner	Fore-and-Aft	115	8.583
<b>Bark</b>	Briggantine	Square	139	10.25
<b>Pink</b>	Briggantine	Square	149	11.583
<b>Catt</b>	Briggantine	Square	153	10.91
<b>Frigate</b>	Snow	Square	159	11.91
<b>Pink</b>	Snow	Square	215	12.625
<b>Bark</b>	Briggantine	Square	227	11.625
<b>Catt</b>	Snow	Square	237	12.5
<b>Frigate</b>	Ship	Square	244	11.91
<b>Frigate</b>	Ship	Square	307	13.75
<b>Pink</b>	Ship	Square	309	14.67
<b>Bark</b>	Snow	Square	316	13.5
<b>Catt</b>	Ship	Square	340	13.5
<b>Pink</b>	Ship	Square	416	15.67
<b>Frigate</b>	Ship	Square	424	16.67

<sup>8</sup> Exceptions include specially built vessels for shallow water where the tonnage might be increased to 160 tons burthen. The Dutch were particularly known for building shallow draft vessels so that they could sail on the intricate canal systems in the Netherlands, see Chapman (2006 [1768]) for details.

<sup>9</sup> The sandbar running across the entrance to St. John's Harbour was approximately 12 feet deep, which makes this a crucial data point (Luffman 2010 [1789]). See below for more.

<b>Catt</b>	Ship	Square	446	15.5
<b>Bark</b>	Ship	Square	455	15
<b>Hagboat</b>	Ship	Square	548	17.09
<b>Frigate</b>	Ship	Square	572	18.5
<b>Catt</b>	Ship	Square	575	16.583
<b>Bark</b>	Ship	Square	608	16.5
<b>Catt</b>	Ship	Square	711	17.5
<b>Hagboat</b>	Ship	Square	716	15.5
<b>Frigate</b>	Ship	Square	761	19.67
<b>Catt</b>	Ship	Square	833	18.5
<b>Bark</b>	Ship	Square	840	18.12
<b>Frigate</b>	Ship	Square	900	21.12
<b>Hagboat</b>	Ship	Square	903	19.12
<b>Bark</b>	Ship	Square	996	19.5
<b>Catt</b>	Ship	Square	1097	19.5
<b>Frigate</b>	Ship	Square	1140	22.67
<b>Hagboat</b>	Ship	Square	1164	21.12
<b>Bark</b>	Ship	Square	1257	20.12

For the purposes of this project, three breaks were selected: 10 feet, 15 feet, and 20 feet of water. These represent broadly small intra-island traders, medium transports, and large transports and warships respectively. It should be noted that these are bathymetric depths and do not directly represent vessel draughts. For instance, a ship drawing more than about 13 feet of water could only operate above the 15-foot margin with trepidation for fear of running aground.

#### *Sailing Rigs and Wind Direction*

European sailing vessels in the seventeenth and eighteenth century were complex machines, harnessing wind power to drive the vessel forward. Movement required a complex choreography encompassing anywhere from a few to hundreds of individuals for any kind of operation, including changing directions, slowing down, speeding up, holding position, or any other situation which might have a bearing on the position of the vessel. Developing from the Middle Ages, vessel architecture became larger, and more efficient, reflecting changes in cargo,

distances travelled, and an increasingly interdependent world (Black 2009; Willis 2008). Despite being complex machines, sailing vessels require wind, and movement across the water is thereby both limited and predictable based on the spatial arrangement of the sailing rig.

There are two major types of sailing rigs: fore-and-aft and square rigged. The type of rigging determines how close to the wind a vessel can sail, and has a bearing on maneuverability and the number of sailors required to effectively move a vessel forward. Square rigged vessels have a sail plan which runs perpendicular to the centerline of the vessel, hanging large, generally trapezoidal (rather than perfect squares), shaped sails. This rig is extremely fast and efficient for vessels travelling long distances with the wind blowing from behind, driving the vessel forward. For long, transcontinental shipping and warfare requiring irregular maneuvering, this rig provided speed and the power necessary to move the largest vessels. The limitations of this type of rigging, however, is that it was not particularly maneuverable in tight situations, with the rig only being able to move a vessel forward at “6-points” to the wind, about 60° (Willis 2008: 13).<sup>10</sup> This means that maneuvering along coasts, up river systems, or into harbors upwind was difficult, if not impossible.<sup>11</sup> Due to prevailing winds, square rigged warships entering into English Harbour, for instance, had to perform tight maneuvers, sailing due West just underneath the cliffs under full sail, heading straight at Fort Berkeley. Upon reaching the channel into

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<sup>10</sup> This figure is an approximation. Vessels could overcome this 60° limit to some degree with different types of hull construction and the skills of the crew. The corollary is also true (Willis 2008: 46). For the purposes of this study, however, an idealized 60° is used for square rigged vessels to determine the limitations of where a ship might be able to travel.

<sup>11</sup> Most of the world’s harbors before the development of steam powered vessels were in areas with significant tidal ranges which allowed vessels to be carried by the current produced by the rising and falling tides, rather than reliant upon proper winds. London, Bristol, and the ports on the Chesapeake and in New England were successful because predictable tides allowed vessels to move unimpeded regardless of the weather conditions. In Antigua (and the rest of the Caribbean), the annual tidal range is between 12 and 18 inches, and does not form a significant enough daily current to move vessels along by itself (<https://www.tide-forecast.com/locations/Saint-Johns-Antigua/tides/latest>, accessed 1 July 2018).

English Harbour, all of the sails had to be dropped by the crew and the ship turned 90 degrees directed into Freemans Bay, letting the vessel drift in. Small boats were then used to row the vessel the rest of the way into the harbor, or, sometime after the 1760s, were warped from the shore by teams of enslaved Africans using thick ropes and a network of anchors set along the shoreline (*Antigua Naval Dockyard and Related Archaeological Sites WHS Nomination Dossier* 2014: 76). Offshore breezes and the towering hills surrounding the Dockyard made maneuvering large square-rigged vessels in that tight space impossible.

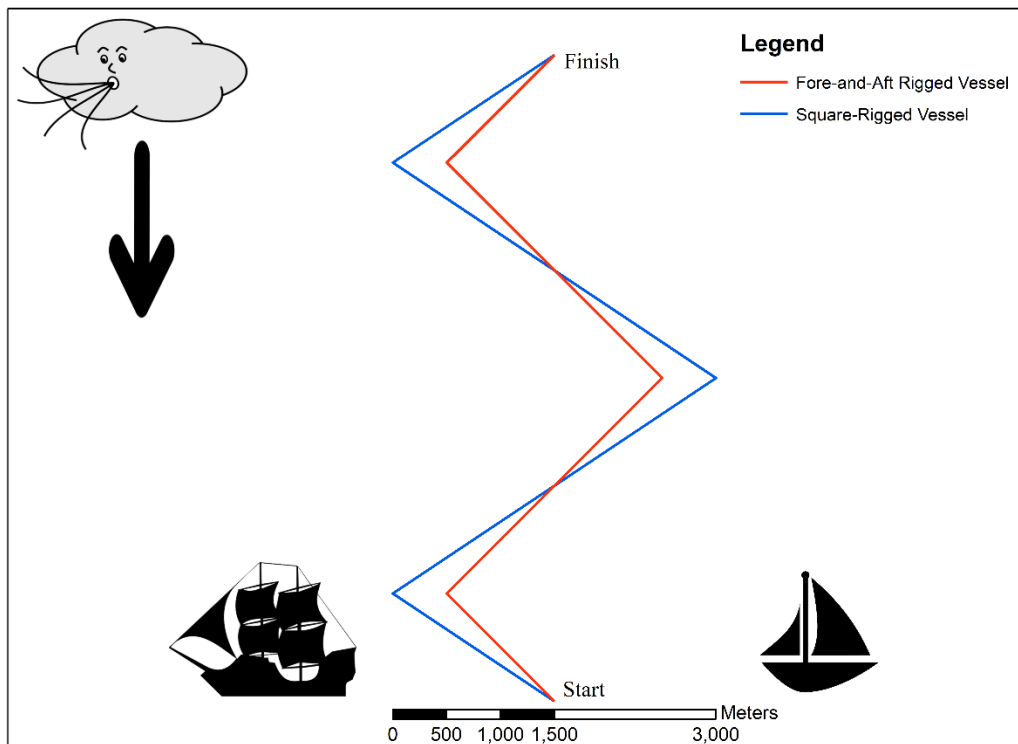


Figure 3.2: Idealized upwind sailing lines for a square-rigged and fore-and-aft rigged vessel, demonstrating the additional space, time and distance required by square-rigged vessels to travel 6,000 meters. Illustration by Christopher K. Waters.

Square rigged vessels historically include ships, brigs, snows, and brigantines. Rated warships were all square rigged, although, as Willis (2008: 11) does comment, “the sailing warship was a more flexible craft than we might assume. It had at least twenty sails, and could

be sailed with one sail set, all sails set, or any number in between and in any combination.” This flexibility allowed ships to complete their required missions on the open water. This did not, however, extend to coastal sailing and maneuvering in and out of tight spaces quickly. A square-rigged vessel required precision maneuvering in tight spaces, allowing for the many moving pieces to all work together, something which Willis claims is difficult, and required intensive training (Willis 2008: 46).

Defensively, considering the maneuverability (and associated size) of ship-rigged vessels and their ability to move along the coast and into harbors quickly and efficiently for raids and/or attacks is necessary for understanding the effectiveness of fortifications. Of the 1,466 civilian vessels recorded arriving in Antigua between January 1784 and December 1787, 39.2% (n=575), were square rigged (but representing 68.2% of the total tonnage) (CO 10/2), showing the prevalence of these types of riggings around Antigua (Table 3.2a/3.2b). Additionally, rated warships in the seventeenth and eighteenth centuries, the vanguard of any invasion attempt, were all square-rigged vessels.

*Table 3.2a: Commercial vessel traffic clearing Antigua Customs between January 1784 and December 1787 (CO 10/2).*

<b>Rig</b>	<b>Rigging Type</b>	<b>n=1,466</b>	<b>Total Tonnage</b>	<b>Average Tonnage</b>
<b>Brig</b>	Square	321	28,800	89.7
<b>Brigantine</b>	Square	7	841	120.1
<b>Cutter</b>	Fore-and-Aft	12	613	51.1
<b>Galiot</b>	Fore-and-Aft	1	129	129
<b>Ketch</b>	Fore-and-Aft	3	60	60
<b>Lugger</b>	Fore-and-Aft	1	70	70
<b>Schooner</b>	Fore-and-Aft	390	14,921	38.3
<b>Ship</b>	Square	238	50,649	212.8
<b>Sloop</b>	Fore-and-Aft	483	20,017	41.5
<b>Smack</b>	Fore-and-Aft	1	50	50
<b>Snow</b>	Square	9	1,492	165.8



*Table 2.2b: Commercial vessel traffic clearing Antigua Customs between 6 June 1704 and 25 September 1704, 26 June 1705 and 20 September 1705, 28 December 1705 to 25 June 1706, 4 October 1707 and 28 September 1708, February 1711 to April 1711, and 12 May 1712 to 27 October 1712 (CO 157/1).*

<b>Rig</b>	<b>Rigging Type</b>	<b>n=418</b>	<b>Total Tonnage</b>	<b>Average Tonnage</b>
<b>Barque</b>	Square	2	40	20
<b>Brig</b>	Square	4	205	51.25
<b>Brigantine</b>	Square	41	2,245	54.7561
<b>Ketch</b>	Fore-and-Aft	10	375	37.5
<b>Pink</b>	Square	4	305	76.25
<b>Ship</b>	Square	128	14,669	114.60
<b>Sloop</b>	Fore-and-Aft	177	4,807	27.16

Fore-and-aft rigged vessels have a sail plan which run parallel to the centerline of a vessel. This arrangement allows vessels to sail much closer to the wind than square-rigged vessels, making them much better suited for maneuvering around coastlines, up rivers and into harbors. Historic for-and-aft rigged vessels could move up to 45° to the wind while still maintaining a forward momentum. For small vessels, which have to regularly navigate in tight spaces and operate under constantly shifting wind patterns, these vessels would be much quicker and easier to manage than square rigged vessels, however, they do sacrifice some speed on longer distances with winds coming in from behind. Fore-and-aft rigged vessels were also, on average, smaller than square rigged vessels. While 61.8% of the vessels arriving on Antigua between 1784 and 1787 were fore-and-aft rigged, the average tonnage was only 62.8 (min: 4 tons, max: 205 tons). This size, along with the fore-and-aft rig, made these vessels ideal for moving in and out of the shallow water and in between reefs in Antigua, allowing them to enter into the smaller bays and inlets around the island, more by size, rather than wind direction.

Although small vessels are less hindered by prevailing winds due to their maneuverability and ability to work upwind significantly better than large square-rigged vessels, considering prevailing wind direction still is incredibly important when combined with other historic and

environmental factors. Knowing the prevailing wind conditions and how to manipulate a vessel in them is the difference between clear sailing and wrecking on a shoreline. On a grand scale, the prevailing winds push vessels across from the Atlantic westwards into the Caribbean. From there, the winds continuously blow from east to west, pushing vessels from the Lesser Antilles deeper into the Caribbean basin (Thornton 2012: 10). Running parallel to the prevailing winds meant that sailing up and down the island chain was a fairly straight forward operation. Vessels pushing further westward, towards Jamaica and the Spanish Main, however, could not return on a direct line approach. Instead, vessels had to sail either through the straits between Cuba and Hispaniola, or between Cuba and the Florida Keys, and up to Bermuda, before returning to the Lesser Antilles. Because of the winds, it was significantly faster to sail from Jamaica to Antigua via the Bahamas, rather than directly from Jamaica to Antigua. This is also the reason why the Antiguan legislature started calling Antigua the “Key” to the Caribbean basin (CO 9/20: 26 April 1754).

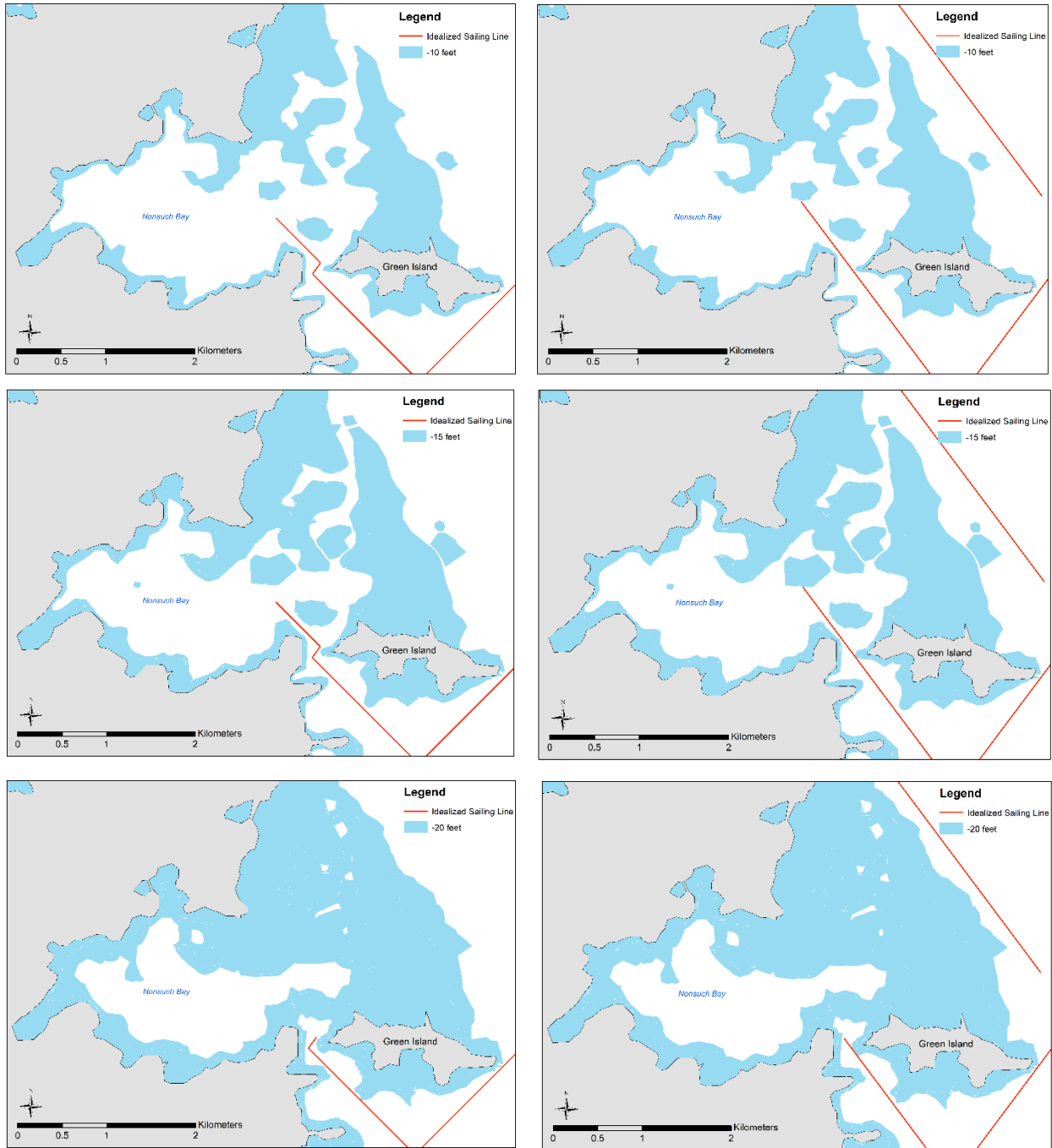
The same general phenomena is applicable to local sailing conditions around Antigua: accessibility is based on where on the island you start, where on the island you are going, and what kind of sailing rig you have. Aaron Thomas on the *HMS Lapwing*, recorded this in his journal while stationed in Antigua:

Came into the Harbor a small Schooner from St. John’s. She says that the Brig from St. John’s laden with Boards and Carpenters Stores for this yard: bore up this morning to return to St. John’s; after beating against the wind & currents for eleven days, and unable to get in. -- the Yard being in want of the Stores in her, I suppose they will order her to be Towed round, by some Ships from St. John’s. (Aaron Thomas: 8 Feb. 1799).

This example demonstrates the complexity of maneuvering vessels around a coastline with different rigs. St. John’s is to windward of the Dockyard in English Harbour. With the prevailing winds pushing from east to west, sailing from a port on the west coast eastwards

means that the vessel has to sail against the wind. The fore-and-aft rigged schooner is able to tack and sail at a 45° angle to the wind, allowing it to zigzag effectively up the coastline. The square-rigged brig, on the other hand, is limited to sailing at no more than 60° to the wind. This means that the vessel has to change direction more often, and requires longer reaches in order to cover the same distance as a fore-and-aft rigged vessel. In addition, since square rigged vessels are better suited to jibing, rather than tacking, all the forward progression risks being lost in the maneuver. Moving upwind requires a huge amount of time, and, as with the supply brig in Aaron Thomas's diary entry, is not always guaranteed to work. Tactically, wind direction impacts perceptions of coastline vulnerability: sailors must decide, is it better to arrive on a coastline quickly, or is it preferable to spend time in the beginning getting close in order to preserve the ability to make a quick escape?

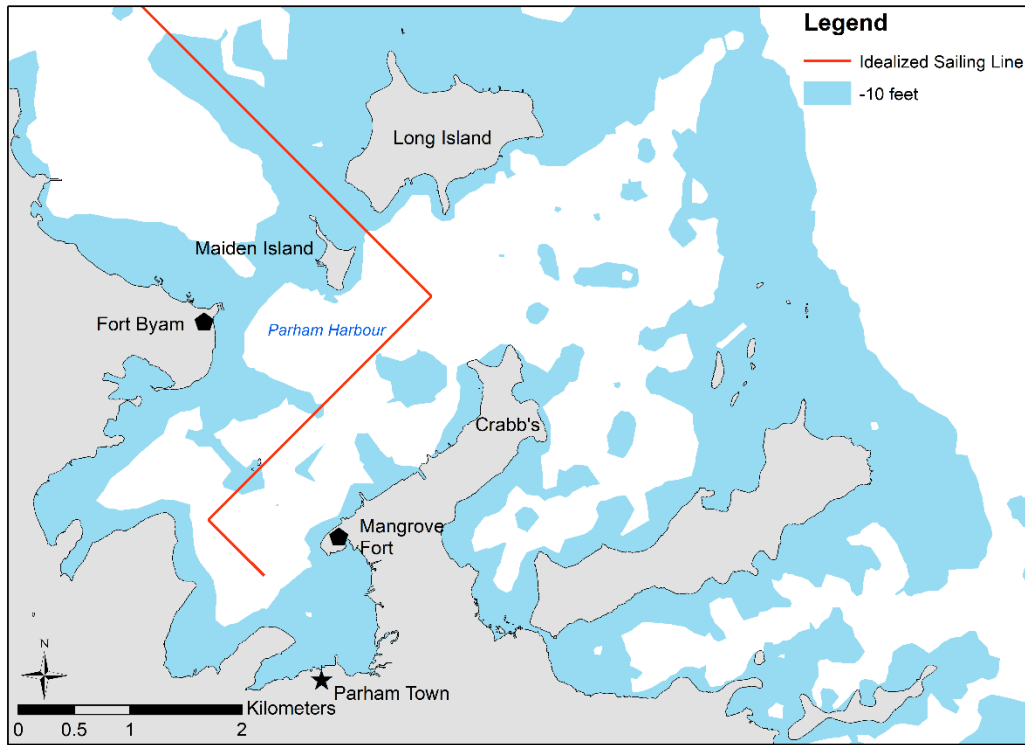
For instance, based on bathymetry alone, most vessels used around Antigua (those with draughts less than 15 feet) are able to enter into every large bay in Antigua. Given the prevailing wind direction from east, southeast, additional limitations are imposed on access. Larger fore-and-aft rigged vessels might find some of the narrow channels more challenging, especially if the crew is unfamiliar with the local conditions, but it is reasonable to assume that they are able to sail into all of Antigua's harbors and bays, and therefore, could present a threat. Ship-rigged vessels, including all warships, however, are significantly more impacted by wind direction. For instance, while square-rigged vessels of less than 15 feet draught can sail into Muddy Bay through the channel between the mainland and Green Island, sailing out without help would be impossible (Figure 3.3). Conversely, square-rigged vessels in Parham Harbour would have no issues using the channel between Maiden Island and Long Island, with the wind almost directly behind the vessel (Figure 3.4). However, getting into Parham Harbour in the first place is an



*Figure 3.3: Sailing courses into Muddy Bay with the wind coming from the east. The left column is the idealized sailing line for fore-and-aft rigged vessels. The right column is the idealized sailing line for a square-rigged vessel. Entrance into Muddy Bay becomes more difficult as vessel draughts get deeper. Exiting Muddy Bay, however, is only possible along the reverse course. Illustration by Christopher K. Waters.*

upwind task, and one which a square-rigged vessel could not do under its own canvas. Thus, factoring wind direction into the defensibility model affords the opportunity to suggest that these

stretches of coastline are significantly less vulnerable to an attack, and therefore require less defensive consideration than areas which have more favorable wind conditions.



*Figure 3.4: Idealized sailing course for a square-rigged vessel approaching Parham Harbour with winds blowing directly from the east. Note that while the path is possible, shallow water between Maiden Island and Long Island prevents large vessels from entering at all. Illustration by Christopher K. Waters.<sup>12</sup>*

### *Local Knowledge*

Local knowledge is a major factor in understanding how vessels move around the water: where shoals exist, how deep the water is, and how the local wind conditions change just offshore. This knowledge is invaluable in successfully navigating along coastlines. Reliance on nautical charts was a chancy proposition and could not supplant the accumulation of knowledge gained from

<sup>12</sup> Based on different recorded soundings on historic charts, the channel between Maiden Island and Long Island experienced times where the water was as shallow as 10 feet (Imray 2015), and as deep as 15 feet (Baker 1748)

experience navigating intricate passages and entering into narrow inlets, bays and creeks protected by networks of reefs and shoals. Local knowledge is also difficult to quantify for modelling purposes. It is individual to pilots and sailors who, combined with experience, are also subject to the vagaries of the wind, waves, time of day, and ability to communicate with a motivated crew in order to successfully maneuver a sailing vessel into difficult places. These aspects are impossible to assess over the course of the study period which encompasses hundreds of thousands of sailors. Rather, we must rely on a more general pattern of knowledge, and the ability for enemies of Britain to successfully navigate Antigua's waters, especially coming close enough inshore to participate in a raid or invasion. Here, we have to rely on historical anecdotes and long term legal trends which have direct bearing on the ability for an enemy to successfully gain local knowledge of Antiguan waters.

There are several maps of Antigua which include not only the coastline, but also provide mariners with key data on maneuvering around the island (Tooley 1969). Common features include depth soundings, safe anchorages, location of towns and settlements, as well as a general overview of where Antigua's key defenses were located. Cartography provided key sources of information for planning and executing military expeditions. Furthermore, maps of Antigua were available in a variety of different languages and could be obtained, including iterations of the same map in Dutch (Oldmixton 1721), German (Oldmixton 1740), French (Baker 1779), as well as Spanish (Lopez 1780). Additionally, several official maps of the island were ordered by the Board of Trade (Moll 1727), as well as by the Antiguan Government (Baker 1748; Jeffries 1771), to use in island development and to make political arguments in Britain and provide robust, up-to-date information for merchants seeking to trade with the island (Figure 3.5). Their

purpose was not secret, rather the opposite: to be used to support Antigua's political and economic lobbying in London.

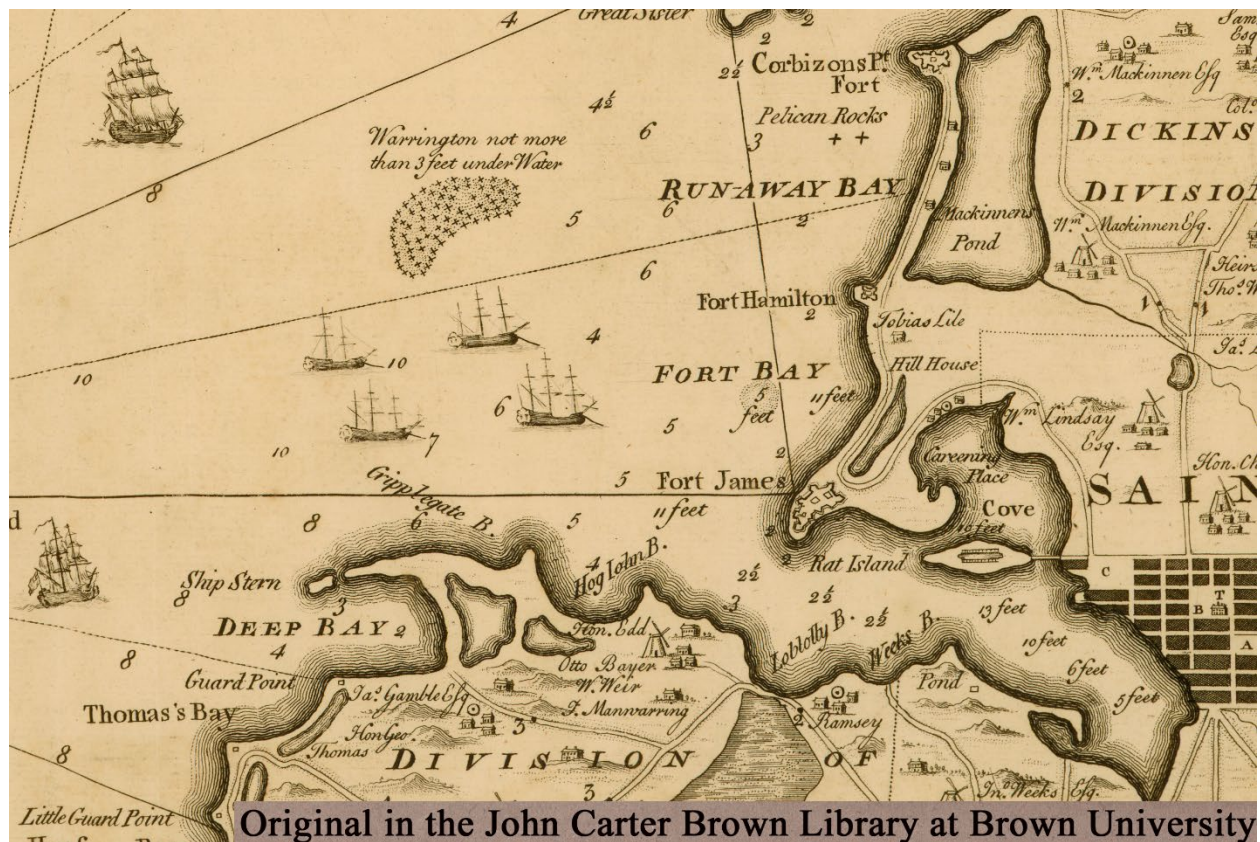


Figure 3.5: Details from the Baker Map (1748). Baker used different notations for different size fortifications. Note the anchorages on the St. John's Road outside of St. John's Harbour. Courtesy of the John Carter Brown Library.

It is worth noting that the resolution and information on these maps are not precise. Maps were often copied from originals in Europe by map makers who had never seen the places which they were drawing (Kain and Baigent 1993). Some mapmakers would copy maps and update them with new information added (See Lodge's 1780 appropriation of Baker 1748). Others were just copies, with original errors repeating themselves in new iterations. In one case, Richard Dingwall (2012: 29-30) analyzed the location of Great George Fort on Monk's Hill, which is on the wrong hilltop in several early examples. This error was copied on several maps from the seventeenth and early eighteenth centuries. It was only with Baker's 1748 "New and

Exact Map of Antigua” that the position was properly located on the map, although only signified by a pictorial representation of the Union Jack, rather than his more often used fortification symbol.



Figure 3.6: Details from the 1748 Robert Baker Map showing the channels into Parham Harbour, Antigua. Courtesy of the John Carter Brown Library.

While maps and charts were part of the gentlemen’s purview and tools of the metropolitan expansion (Ackerman 2009), knowledge of Antigua’s coast would have been commonly held by the sailors who regularly sailed those waters. As an island, Antigua was only



accessible by water; and as a key cog in the sugar trade, vessels from every port in the Atlantic World arrived on the island. Between June 1704 and June 1708, 310 vessels arrived in Antigua (CO 157/1). Eighty years later, Antigua recorded 1,483 arrivals, crewed by 12,011 recorded individuals, between 1784 and 1787 (CO 10/2). And these number do not include warships and navy sailors. Knowledge of at least the ports of St. John's, Parham, and to a lesser extent Willoughby Bay, Falmouth and English Harbour, was common, shared knowledge, and the physical attributes of each harbor well known (Figure 3.6). Merchant crews in the seventeenth and eighteenth century were often multinational and multilingual, making transmission of this knowledge even more likely (Syrett 1970; 2008).

While the channels leading to the established trading ports might be well known, what about navigation knowledge of Antigua's "many creeks and harbours," where external trade was disallowed (Langahan 1844: 122)? To answer, there are two related aspects. First, the internal island trade relied on transporting plantation produce to the established, legal port towns.<sup>13</sup> With a poor internal road network subject to wet weather, transporting heavy hogsheads and barrels of sugar, rum and molasses overland any great distance was difficult, time consuming and expensive. Plantations along the coastline had their own wharves, and produce was shipped by water in a fleet of locally built sugar droughers. These small, shallow bottomed vessels easily navigated around the narrow channels, bays and inlets, taking the produce to one of the trading ports for customs inspection and transshipment. These small vessels, which, "contribute very much to the advancement of Trade as well as to the ease and convenience of the Inhabitants in

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<sup>13</sup> In the seventeenth century, the legal port towns were declared to be St. John's, Old Road/Bermudian Valley, Parham, Falmouth, North Sound and Bridgetown (Act No. 35 in Legislature of Antigua 1805: 63-66). By the mid-eighteenth century, almost all of the trade flowed through St. John's, with Parham serving as a smaller subsidiary port for plantation produce. Falmouth only remained important due to its proximity to the Naval Dockyard at English Harbour.

general,” were so numerous and profitable, that by 1758, the Antiguan government legislated price fixing for transporting goods (CO 8/12: 80). These vessels, sailed by poor white settlers and enslaved Africans alike, fostered a great deal of local knowledge regarding sailing around Antigua. As such, their knowledge was considered privileged and protected, causing the government consternation that this knowledge could be exploited by the island’s enemies.

Two things hindered the efforts of the Antiguan government to prevent foreign knowledge of Antigua’s waters: smuggling and warfare. While trade with foreign islands was on paper strictly regulated, in practice, Antiguans regularly traded with Dutch, French, Spanish and Danish possessions in the Lesser Antilles (Armstrong 2003; Hauser and Kelly 2011; Newquist 2011). In Antigua, French sugar and Dutch trade goods regularly made their ways onto the island: the sugar for transshipment, and the trade goods for personal consumption.<sup>14</sup> This illicit and illegal trade is significantly more visible in the historical documentation, with the Antiguan government attempting to curb the laundering of cheaper French sugars into British markets through Antigua. This type of trade would have been conducted in small vessels with local crews, allowing Antigua’s information about French waters, while also allowing French crews to smuggle sugar into Antigua’s small bays and inlets where the sugar could “harvested” and sent to the customs house before being shipped to Britain.

Warfare also allowed Antigua’s competitors intelligence on Antigua’s waters from raids, but also from sources such as prisoners, spies, and Flags of Truce. Privateers were economic tools, waging war against the commerce of an enemy through private investment. Vessels were usually small, lightly armed, and overmanned, in order to overwhelm and capture merchant

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<sup>14</sup> Material culture analysis from the assemblages from Antigua’s fortifications included foreign ceramics: most prominently Dutch tin enamelware, but also sherds of French faience appeared at these sites suggesting that at least some exchange happened.

vessels. Antigua's geographic position, slightly to windward of the major islands in the Eastern Caribbean, was a frequent target of privateers as merchant fleets arrived in the Caribbean to the north and east of the island.<sup>15</sup> Even more worrisome to the Antiguan government were the "Several Small Privateer Vessels which are Daily Lurking in our Bays & Creeks," and preying on intra-island shipping (NAAB 324: 10 July 1746). The sailors on these vessels clearly knew the waters around Antigua and could exploit them to ambush merchant vessels or launch raids against nearby plantations.

Privateers took many prisoners, either ransoming them for money, or turning them over to their governments which would use them to trade for prisoners held by their opponents during Flags of Truce. In Antigua's case, common soldiers and sailors taken off foreign vessels were supposed to be confined to a single location, sometimes the barracks at Rat Island, and at other times in the common goal in St. John's. Officers and gentlemen, on the other hand, might have significantly more liberties, such as being able to walk about the country during the day for exercise as long as they reported back to their wardens at nightfall, trusting in a vague system of honor that these men would not reconnoiter or gather intelligence on the state of the island's defenses or access points (NAAB 324: 24 July 1744). In some circumstances, captured sailors would join their captors as crew, lending their knowledge to the enemy (CO 9/1: 8 August 1704). Even in exchanging prisoners through cartels, or Flags of Truce, information was picked up, with vessels sailing directly into enemy ports to assess both the approaches as well as critically

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<sup>15</sup> Some specific examples include, "There being an almost certain acco. That Three Spanish Privateers are Cruizing to Windward and among these Islands whereby great Danger may be of the Safety of the London Ships & others bound hither," (NAAB 324: 7 March 1742). In 1746, the Antiguan government petitioned the Crown for Navy protection, citing the 80 to 100 French privateer vessels out of Guadeloupe and Martinique were wreaking havoc on Antigua's shipping (NAAB 324: 31 July 1746). These complaints repeat themselves during every conflict with accusations that the Navy did not do enough to protect Antigua's trade (e.g. CO 9/20: 25 November 1755; NAAB 329: 10 September 1778).

evaluate defenses. Very little information regarding Antigua's physical layout and coastline would have been kept secret throughout the seventeenth and eighteenth centuries.

Local knowledge is clearly an important consideration in assessing what risks an enemy vessel might find acceptable. In the case of a heavily trafficked island such as Antigua, we can assume that there were enough people around who could advise and navigate foreign vessels around the island. While this aspect is not directly quantifiable for the defensibility model, determining that there was not a lack of local knowledge factors into Antigua's defensibility assessment by removing a possible doubt or source of error in considering Antigua's position. It is, therefore, safe to assume that Antigua's elites, many of them likely participating in the illicit and illegal trade themselves, were aware of waters around the French islands, making the converse certainly likely.

### *Historic Artillery*

Perhaps one of the most difficult aspects in determining the defensibility of Antigua's fortifications is determining and applying artillery ranges. On the surface, how far a cannon can fire seems like a straight forward question. A number of contemporary treatises mathematically establish hypothetical maximum ranges at a number of different elevations, and confirmed by experimental reporting (e.g. Mueller 1756; Robins 1805).<sup>16</sup> While these treatises are invaluable historical sources on the construction, use and thinking associated with eighteenth century smoothbore artillery, the purpose of these documents were equal parts historical trajectory and mathematical theorizing, rather than a practical guide to the tactical and strategic placement of artillery on the battlefield. While the competitive development of artillery throughout the

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<sup>16</sup> A Dr. A.R. Collins revisited several of these historic treatises, including Muller and Robins, with the aim of applying modern mathematical principles and aerodynamics to eighteenth century artillery. His calculations confirm the hypothetical maximum ranges, (<http://arc.id.au/CannonBallistics.html>, first accessed 10 May 2012).

eighteenth century was a product of engineering as much as political intrigue by the heads of different national artillery parks, the evidence of their effectiveness remains anecdotal at best.

One of the major issues determining accurate fire of smoothbore cannon is the aerodynamics of a sphere in flight. Round objects flying through the air wobble, and round objects which are propelled down a tube with windage—space between the shot and the side of the cannon—cause the shot to travel in a less than straight line (Douglas 1860: 82-96). The aerodynamics cause, what Robin (1805: 149, emphasis in the original), delightfully styles “*Bullets...are also frequently driven to the right and left of that Direction by the Action of some other Force.*” Robin continues with an experiment, stating that firing a quarter inch ball (.25 caliber) at a target 180 yards distant, “that in 16 successive shot, I missed the board but once.” However, at “760 yards distant, the ball flew sometimes 100 yards to the right of the line it was pointing on, and sometimes 100 yards to the left,” demonstrating that the greater the distance, the greater the Magnus effect whereby one side of a ball in flight will spin faster than the other, causing the whole ball to wobble in flight (Robin 1805: 150). This force applies to larger size weapons, although neither Robin, nor others, discuss any experimental results for smoothbore cannon. Indeed, Douglas (1860: 100-101) states:

Exclusive of errors in pointing and laying guns, and those caused by occasional variations in the state of the atmosphere, by friction, rotation, windage and the imperfect influence of the charge, with many circumstances, combine, in unknown and variable degrees which theory cannot determine, to affect the probability of striking the object aimed at; and it is only by extensive experience, or by reference to tables exhibiting the mean results of numerous trials under many different circumstances, with all the natures of ordnance in use in the service, that correct judgements can be formed with respect to the probable deviation of the projectile from the vertical plane in which it should move, or the errors, in excess or defect, in the extent of the range, so that proper means may be used to obtain the requisite accuracy.

Mueller (1757: 149), adds that the industrial processes in making each cannon also impacted the trajectory of a cannon ball, writing, “no gun is ever turned so true, so that the outside

corresponds exactly with the inside.” All of these writers were exploring the military services, whether it was artillery or navy: professionally trained organizations starting already in the seventeenth century (Duffy 1975; 1979; 1985; Rothrock 1967). Woolwich trained gunners were required to take courses in mathematics, have backgrounds in engineering, and gain experience through practice and warfare. These men represented a corps dedicated to the science and art of their craft, likely being able to push effective ranges based on calculations, well laid out plans, and intimate knowledge of each and every cannon under their command.

Developments in gunpowder technology across the eighteenth century also contribute to understanding cannon ranges. Gunpowder lies at the crux of understanding eighteenth century ordnance. Adding extra propellant might propel a cannonball farther, however, as many of the ordnance masters figured out quickly, the added stress of causing large explosions within the ridged iron<sup>17</sup> tube could seriously compromise the integrity of the piece. Caruana (1994 Vol. 2: 486-487), discusses the effect of gunpowder on ordnance like this:

In the perpetually shifting sand that is the question of gunpowder, what was a sound gun at one point in time could be and usually was an unsound gun at a later point, purely and simply because the power of gunpowder had increased. It cannot be stressed too highly that the soundness of a gun is a matter of a comparatively delicate balance between the power of the propellant, the strength of the gun, and the degree of resistance offered by the projectile. Any increase in the resistance or the power of the propellant, or decrease in the strength of the gun, was a movement towards unsoundness. This was appreciated, and is why with the cylinder powder the charge, one third the eight of the shot with normal firing, was reduced to one quarter when double-shotted. There was a considerable body of thought, in artillery circles, that charges should be further reduced, but it was felt that this would decrease naval confidence in the effect of firepower, and a

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<sup>17</sup> Cannon were also cast in brass in the seventeenth and eighteenth centuries (Meide 2002). Brass is more resilient than iron, allowing gun founders to make lighter weapons; a constant concern for field pieces. Iron guns were significantly heavier, however, they were also much cheaper to make, and in situation where guns did not have to move far, such as in ships or as part of garrison batteries at fortifications, iron ordnance was preferred (Mueller 1757; Caruana 1994 Vol. 2). The Antiguan government did have several brass ordnance pieces, however, these were relegated to the Train of Artillery in the militia, warehoused in St. John’s Town, and were supposed to follow and support the militia in case of an invasion, rather than being part of the fixed defenses around the island.

general view seemed to be that while the guns could stand higher charges it was better to continue them. (Caruana 1994 vol. 2: 486-487).

In determining cannon ranges, the careful “delicate balance” between gunpowder, the strength of the gun, and the size of the shot, gunners were not achieving the maximum potential of an ordnance piece. While the mathematical and physical reasons might not be communicated to individual gunners, nor necessarily understood as to why, the ratios of gunpowder to weight of shot were well established in the seventeenth century, and would have passed, unquestioned, to the gunners in Antigua, regardless of their training and experience.

Besides not discussing what effective ranges mean, a further complication arises from the mathematical equations which were being developed. These equations focused on representing the natural world, specifically, why a shot fired at a  $45^\circ$  angle did not fire in a perfect or near perfect parabola (Robin 1805). For experimental purposes, then, many of the tests carried out were at  $45^\circ$ , an angle which mounted cannon could not reach (Caruana 1994: 12). Most cannon operated at angles of  $10^\circ$  or less, with mortars or howitzers operating at greater trajectories in the eighteenth century.<sup>18</sup> These tests, combined with the desire to test for maximum ranges in order to test mathematical theories, limits our understandings of effective ranges to anecdotal evidence. For instance, M. Piobert (1837: 181-184), discusses the penetration power of different weight of artillery using different size charges, at a set number of distances, simulating a siege. Importantly, his ranges run from 25 meters to 1,000 meters, suggesting that consideration of any greater distance is not worthwhile.

These short ranges are corroborated in accounts of siege and naval warfare. Vauban, the master engineer, “calculated the longest effective range of cannon at under 600 yards,” and

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<sup>18</sup> The Antigua government owned several mortars throughout the seventeenth and eighteenth century (e.g. CO 9/12: 7 August 1739; NAAB 330: 8 April 1779), but there are no indications that they possessed any howitzers in their artillery train.

advocated for the continual advancement of siege batteries closer and closer to a target (Vauban 1968: 59, 160: see also Lepage 2010: 51). In a siege, Mueller (1757: 163), states that “the first batteries erected in an attack are generally placed about a hundred yards before the first parallel upon a rising ground.” This style of warfare, advancing siege batteries, continued well into the eighteenth century, including at the Battle of Yorktown (1781), where the first American and French allied counter batteries were emplaced some 500-600 yards from the British lines, and the second parallel within less than 400 yards of the British lines (Selig 2005: 44-45). Whereas Robin (1805) demonstrated that while the velocity of the shot was only just impacted by long range, the many different “unknown and variable degrees,” in maintaining precise and accurate fire on an emplacement meant that the range had to be closed to a short distance (Douglas 1860: 101). Otherwise, sieges and attacks would cost longer in time, material and effort: any of which could hasten the dissolution of the eighteenth-century army (Loh 2000).

Naval sources likewise suggest that the maximum effective range was well short of the maximum possible ranges tested by Mueller, Douglas, Robin and others. Caruana (1994a: 12), suggests that maximum effective range for ship-to-ship combat in the eighteenth century was 400 yards. Wave action, heeling, variable winds and other environmental factors circumscribed the precision whereby vessels might be able to hit a target without significant compensation by the gunners on board (Willis 2008:116-120). Additionally, since ship-to-ship combat was fought on the same plane, elevation mattered only insofar as vessels would target rigging. In addition, the small size of the gun ports limited elevating cannon to between 10° and 12°, making firing up at any significant distance difficult. This, however, does not seem to have deterred naval captains, who often reduced distances significantly during combat. Particularly valiant captains were known to bring their vessels to within “pistol shot,” or less than 30 yards before engaging



(Willis 2008: 139-145). These short distances also included sea to land action like at the Battle of Madras (1746), the Battle of Vijaydurg (1755), and the Battle of Copenhagen (1801 and 1807) where coastal batteries and fortifications were engaged by naval vessels. This also happened during the campaigns in the Caribbean, including the *HMS Buckingham* (70-guns) and *HMS Cambridge* (80-guns) destroying a fortification on Grande Anse Bay, Martinique, sinking three privateers and capturing a fourth (Smelser 1955).

Ship to shore engagements in the eighteenth century have to be understood in an asymmetric context. Caruna (1994 vol. II: 438), draws this useful comparison:

One of the most studied campaigns in military history is that of Waterloo in 1815, for which the heavy artillery allocated on 31 May 1815, excluding mortars, consisted of thirty 24-pdrs, nine 18-pdrs, five 12-pdrs, and five 68-pdr carronades. This produces a projectile ability of 1,282 lbs. To put this in context, it is something less than two-thirds of the firepower of a 74-gun ship launched in the same year, and only marginally more than half of the *Caledonia*. It is also less than the firepower of a 64-gun ship, which at this date was regarded as too weak to form part of the line of Battle.

A particularly illustrative example of ship to shore engagements comes from the aborted British attack on Martinique, followed by the successful invasion of Guadeloupe in 1759 during the Seven Years War. In both cases, vessels in the Royal Navy closed in on shore batteries until they were within less than 100 yards of an enemy emplacement before laying anchor and opening fire (Smelser 1955). In Martinique, the Royal Navy were additionally threatened by batteries set at elevations above their ability to respond to, forcing them to reconsider their plans after the initial attack did not force a surrender. This was not the case in Guadeloupe, allowing the Navy to return fire. All three major naval engagements against the towns of Fort Royal, St. Pierre and Basse Terre were on the windward side of those islands, meaning that the warships had to spend considerable time sailing into the wind, tacking back and forth, before they could get into position. The initial attack on Basse Terre, Guadeloupe, called for the Royal Navy

warships to divide into five different battle groups, each tasked with subduing different French batteries (Smelser 1955: 78). In one particular engagement, the *HMS Rippon*, a 60-gun 4<sup>th</sup> Rate,<sup>19</sup> spent 6 hours under shore fire before laying anchor within 50 yards of a French battery and musketeers, having run aground, and receiving heavy fire from a number of different emplacements, including directed fire from the citadel sitting at an elevation beyond the capacity of the British guns to hit, she could not escape. Instead, she stood up against the fire, expending 1,300 cannon rounds in addition to 2,000 musket shots by her compliment of Marines, while taking 15 casualties: 2 killed and 13 wounded. The *Rippon* was the only vessel to sustain major damage; the remaining vessels completed their tasks, silencing their opposing batteries quickly with overwhelming fire (Smelser 1955: 78-85). Syrett (2008), comments that the French were undermanned, and their forces comprised of militia supported by a small company of poorly trained garrison soldiers, suggesting that the deplorable state of Guadeloupe's fortifications and trenches were a product of poor planning by officials with little to no military experience. The purpose of this story is twofold: first, the eighteenth-century warship is a "floating fortress" (Dull 2009: 5), and incredibly powerful defensive and offensive weapon. Aside from bringing more guns to bear, warships were incredibly resilient, with vessels sustaining hundreds of direct hits to their hull and able to still maneuver away to affect repairs (Willis 2008: 140).

The second purpose of this anecdote, is that this campaign took place some 40 miles south of Antigua. The *HMS Rippon*, was a part of the Leeward Islands Station and spent time in Antigua, making at least the officers known to the Antiguan elites, and her exploits were immediately communicated between the general staff and the Antiguan government (Williams 2016). Additionally, within days of the British landing at Guadeloupe, the joint commanders

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<sup>19</sup> The British Navy used a rating system to categorize the size and number of guns for their main warships. A 4<sup>th</sup> Rate typically had two gundecks and carried between 50 and 60 cannons.

Major General Hopson and Commodore Moore sent a letter to the Antiguan government asking that, “a number of men, whites & black, may be raised and sent to Guardaloupe,” resulting in three hundred enslaved Africans and several hundred white men, including some from Antigua, being sent to Guadeloupe (CO 9/24: 26 February 1759). Between the constant communication between the government and military forces, the personal accounts from the men serving on those stations would serve to reinforce the vulnerability of Antigua’s own coastline from a seaborne attack.

Muller (1756: 186-187), describes how harbor and harbor towns might be fortified against both land and naval forces, although conceding “it would require a whole volume to enumerate all the different circumstances,” of defending such a complex landscape from an attack. These landward defenses were meant to deter vessels from attacking in the first place, as well as offer a protective umbrella for friendly vessels seeking cover. To augment the security of these positions, fortifications were built with long seawalls where artillery could be massed, rather than the more conventional bastion construction for landward defense. Attackers had to cow the defenders into giving up, bringing more cannon to bear on one large warship than a full sized eighteenth century besieging army might on Continental Europe. Defenders had to make attacking these coastal positions so costly that ships would be forced to retreat. These long sea batteries were a mainstay of Caribbean architecture, with Fort James on Antigua, Fort Charles on St. Kitts (Schroedl 2000; Schroedl and Ahlman 2001), and Fort Oranje on St. Eustatius (Gilmore and Roth 2013) all exhibiting this architectural feature.

While the maximum ranges for cannon at 10° elevation for a 24-pounder was between 2,600 and 2,900 yards (Douglas 1865), clearly these ranges were considered academic, rather than practical. When it came to the conduct of warfare, these ranges were heavily circumscribed

to favor precision and expediency in the conduct of a battle or campaign, and carried out by dedicated professionals who combined scientific study with experience and practice to deliver their shots. Drawing from these sources, the following ranges were concluded upon for the purposes of developing the coastline vulnerability model.

Knowing the hypothetical ranges of seventeenth and eighteenth-century artillery affords opportunities to investigate the possibilities of Antigua's coastline vulnerabilities. However, as with the sailing bathymetry or any of the other historic variables used in the HGIS model, using these ranges only creates potentialities, and does not necessarily reflect historic reality.

### **Calculating Defensibility**

Applying the above metrics in ArcGIS 10.4, I ran a series of calculations to both understand the defensive potential of Antigua and compared that to the way the fortifications were placed in the martial landscape. This way I can assess the defensive potential of the fortifications as a function of the abilities of the Antiguan elites in the legislature. Specifically, by establishing the historic parameters, I can elucidate unwritten and unspoken motivations of the island's elites, while simultaneously assessing the strengths and weaknesses of the island.

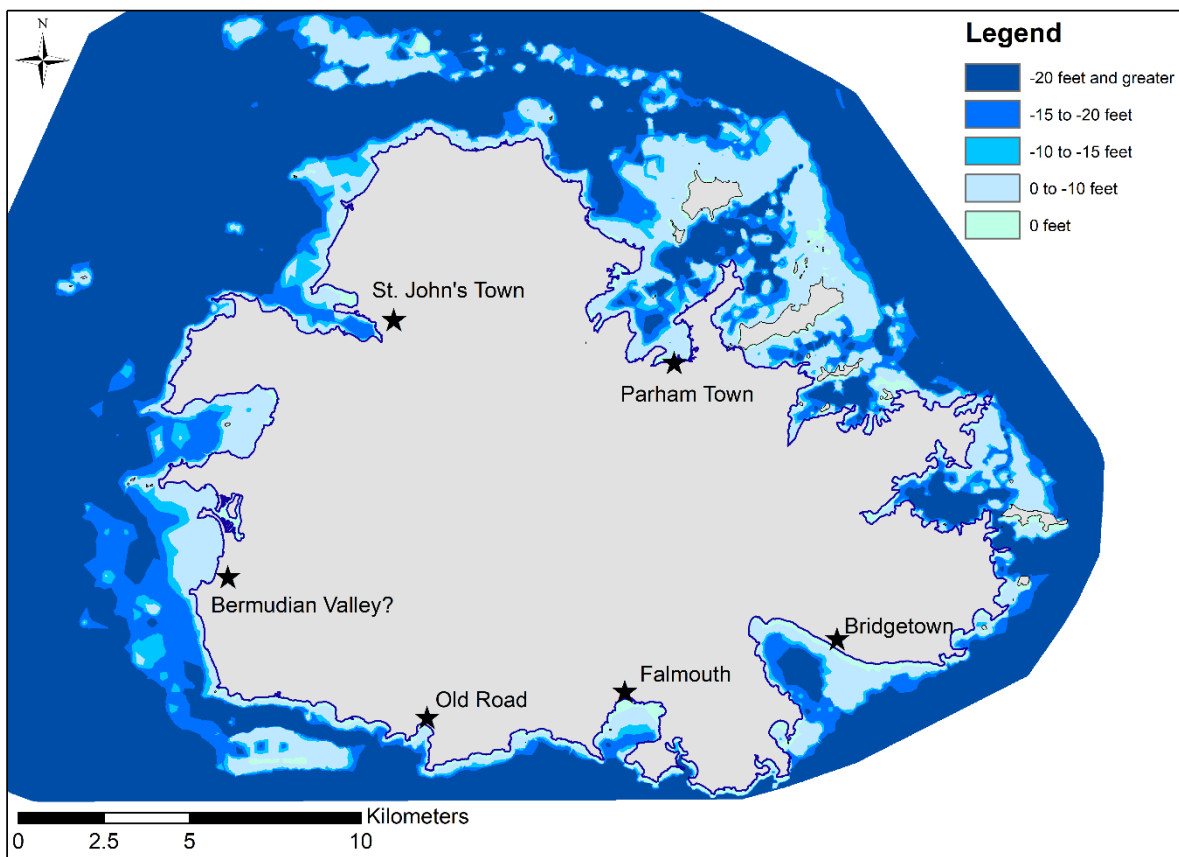
#### *Identifying coastline vulnerability*

The first part of the defensibility model is examining the vulnerabilities of Antigua's long coastline. Vulnerability is defined by three variables: depth of water, wind direction, and the type of coastline. The first two categories are directly correlated to historic sailing capabilities, and will be assessed each in turn before being added together, and are factors of distance. The type of coastline—sand beach, rocky shore, cliffs—defines how easy it is to land soldiers and material. An ideal landing spot for a large army like the ones the Antiguan legislature feared would include a long strip of beach with a gentle hinterland where troops could rapidly ingress

into the island. Poor beaches would be short, and immediately dominated by steep highlands providing a natural barrier to slow an invading army down, as well as offering the defenders an elevation advantage. The coastline is the last factor considered, layered onto the sailing variables.

### *Depth of Water*

A Digital Elevation Model (DEM) of Antigua's Bathymetry was constructed using Imray-Iolaire's A-27 1:50,000 Sounding Chart for Antigua (2015), a standard nautical sailing chart of the water immediately around Antigua (Figure 3.7). The results were incorporated into a GIS



*Figure 3.7: Antigua bathymetry. Illustration by Christopher K. Waters.*

geodatabase. Using historic maps, I corrected depths for two shipping lanes. The first one was reestablishing the sandbar across St. John's Harbour, a historical feature which allowed only shallow draught vessels to actually sail into the harbor (Luffman Letter VI: 3 September 1786).

A channel was dredged in the mid-twentieth century during the construction of the Deep Water Harbour complex to allow shipping vessels and cruise ships to enter St. John's. The second historic manipulation came from the silting in of the shipping channel into Parham Harbour between Maiden Island and Long Island, and ignoring the modern channel dredged on the other side of Maiden Island. In historic times, the channel went north, and could accommodate large vessels with a draught of under 18 feet and allowing them to sail into Parham Harbour.

Based on historic vessel data (above), four depths were chosen to represent different sizes of vessels. The increments were from 0 to 10 feet, 10 to 15 feet, 15 to 20 feet, and greater than 20 feet.<sup>20</sup> The 10-foot mark encompasses almost every inter-island and transcontinental vessel which could be used as a firing platform and ferry troops and war materials, while precluding intra-island trading vessels and smaller craft which may be used to land troops. The majority of the vessels arriving in Antigua fit into this category, representing a set of vessels smaller than 300-ton burthen. Most privateers would fall into this category. Vessels drawing between 15 and 20 feet of water encompasses a broad range of large vessels, dominated by three-masted ships.<sup>21</sup> Few merchant vessels arriving in Antigua were larger than 300 tons (41 arrivals, only 2.8% between 1784 and 1787), but this class includes large merchant ships, and small warships, including small frigates, which, while generally between 450 and 550 tons burthen, were built with a shallower draught. The final class are those with a draught greater than 20 feet which includes all Ships-of-the-Line. 4<sup>th</sup> Rate Ships of the Line were over 600 tons burthen by the

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<sup>20</sup> Note: There are several vessels in *Architectura* which draw between 8.5 and 10 feet. The DEM measures depth of water, not draught, which means that vessels which draw 10 will not sail in 10 feet of water, rather, that is the point where a vessel will start to ground. For the model's purposes, it assumes that 10 feet of water is considered the minimum "safe" depth for a vessel which draws 8.5 feet. This extends to the other depths as well, where vessels which draw 13.5 feet "safe" in 15 feet of water, and so forth.

<sup>21</sup> Ship is a naval classification encompassing a large square rigged vessels with three masts.

beginning of the eighteenth century and drew over 18 feet of water (Roger 2004). This last class is to be expected for any invasion fleet, thereby making it an important class for consideration.

The bathymetric data was then coupled with historic artillery data: known cannon ranges for a number of different caliber weapons. The Antiguan coastline was buffered at a number of different ranges, representing the effective and extreme ranges of the Borgard Ordnance Establishment calibers of 3-, 4-, 6-, 9-, 12-, and 24-pounders adopted in 1716 (Mueller 1757).<sup>22</sup> These buffers were then overlaid with the bathymetric layers and used to “erase” the overlapping areas. This leaves only the areas both covered by coastal artillery and where a vessel of a specific draught coincides, highlighting the areas along the coastline which could be protected effectively, and which areas might be considered vulnerable (Figure 3.8).

This analysis works two ways. First, it demonstrates the vulnerability of the coastline by showing where gaps in the protection exist (analysis below). The second way this works, is by assessing where enemy vessels might approach (information which, based on local knowledge, should be known), for inshore support and bombardment of coastal fortifications. Whereas extreme ranges are difficult to achieve while sailing (Willis 2008), the effective range arcs demonstrate how close inshore a vessel might be able to come to engage with coastal targets. Fort James, for instance, is well outside the effective range of warships (approximately 1,140 yards), offering that fortification some protection against overwhelming broadsides (Figure 3.9).

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<sup>22</sup> Borgard included 32 and 48 pounders in the Establishment. These larger calibers were not represented in Antigua until the very end of the American Revolution, and then only at Great Fort George, Fort James, and Fort Barrington (Nicholson 1994; CO 9/41: 21 May 1781).

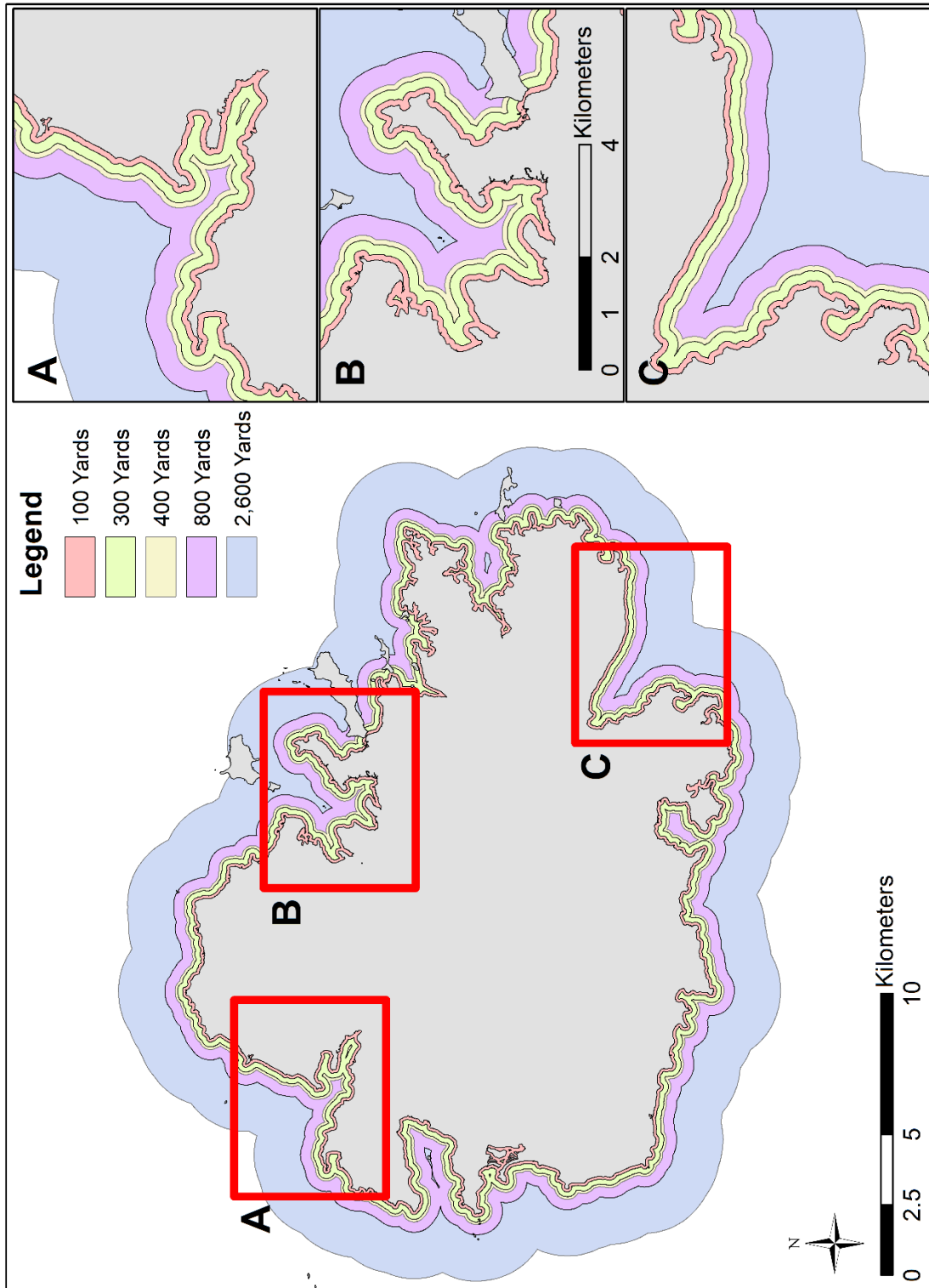
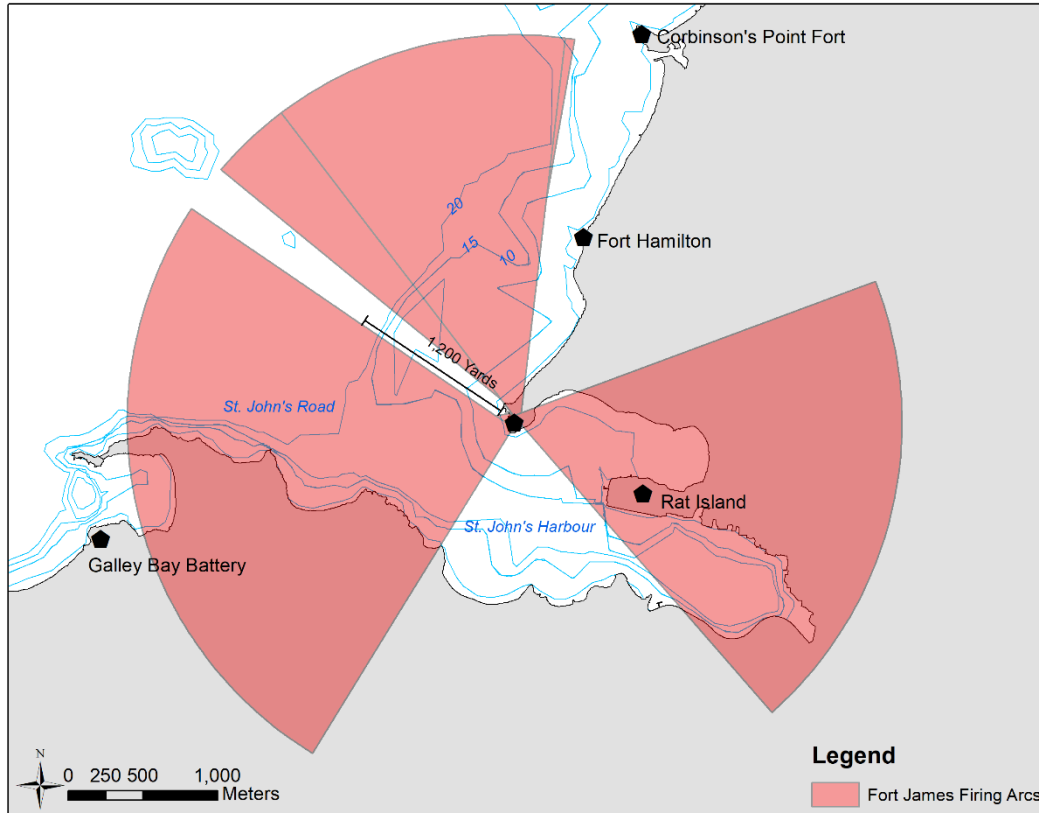


Figure 3.8: Effective cannon ranges around Antigua. Cut out A) focuses around St. John's, B) is Parham Harbour, and C) shows details around Willoughby Bay. Illustration by Christopher K. Waters.



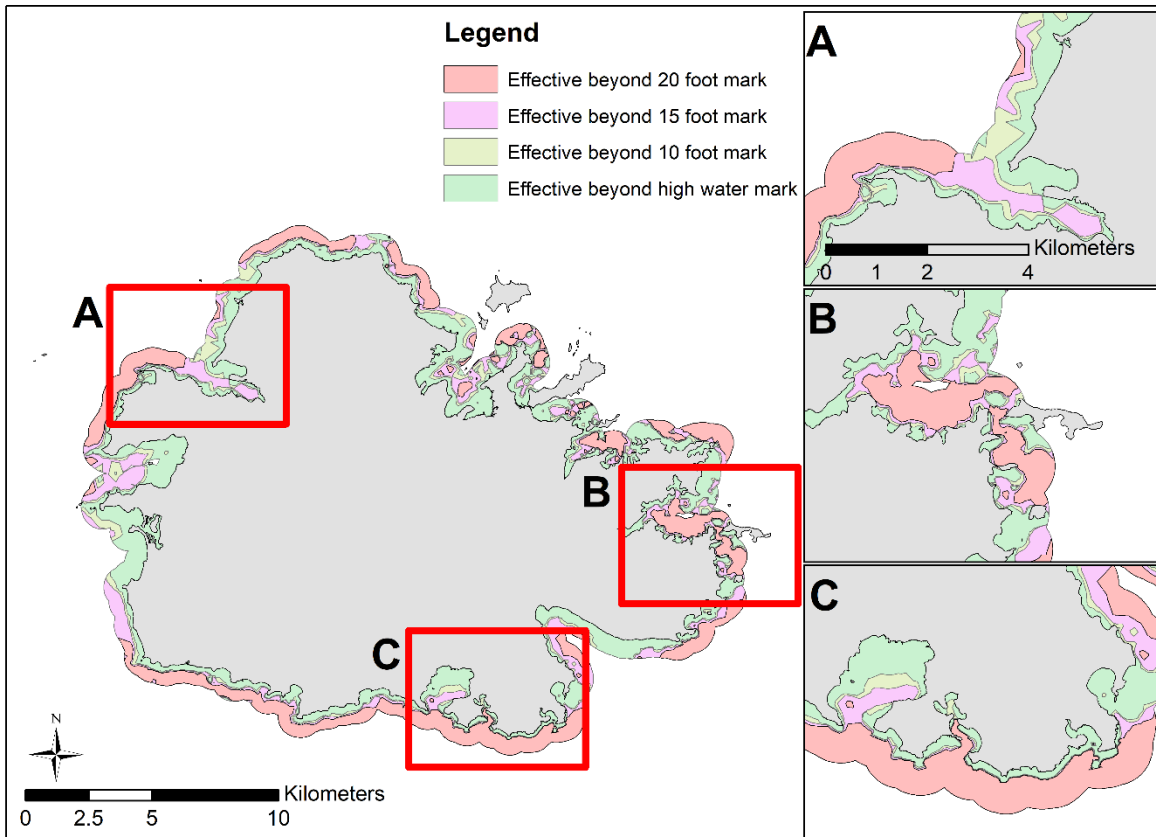


*Figure 3.9: Maximum cannon projections from Fort James' parapets and embrasures. Note the bathymetric curves and the distance between the St. John's Road and the fort.*

### Combining Affordances

There are two overlapping metrics which identify vulnerable coastlines. The first measures the defensive potential—how much of the sea around Antigua could be hypothetically protected by different caliber cannon. This is a measure of area: defining where a vessel can move based on bathymetry and assessing shot projection from the coastline to determine how much of the shipping area is vulnerable from coastal defenses. This is a measure of the potential protective cone around the island where Antiguan cannon are theoretically able to inflict damage on enemy vessels given the historic parameters stated above. The purpose of this is to test the two purported reasons given in by the Antiguan elites as discussed in the legislative minutes: to keep enemy vessels as far away from the coastline as possible through the deterring effects of

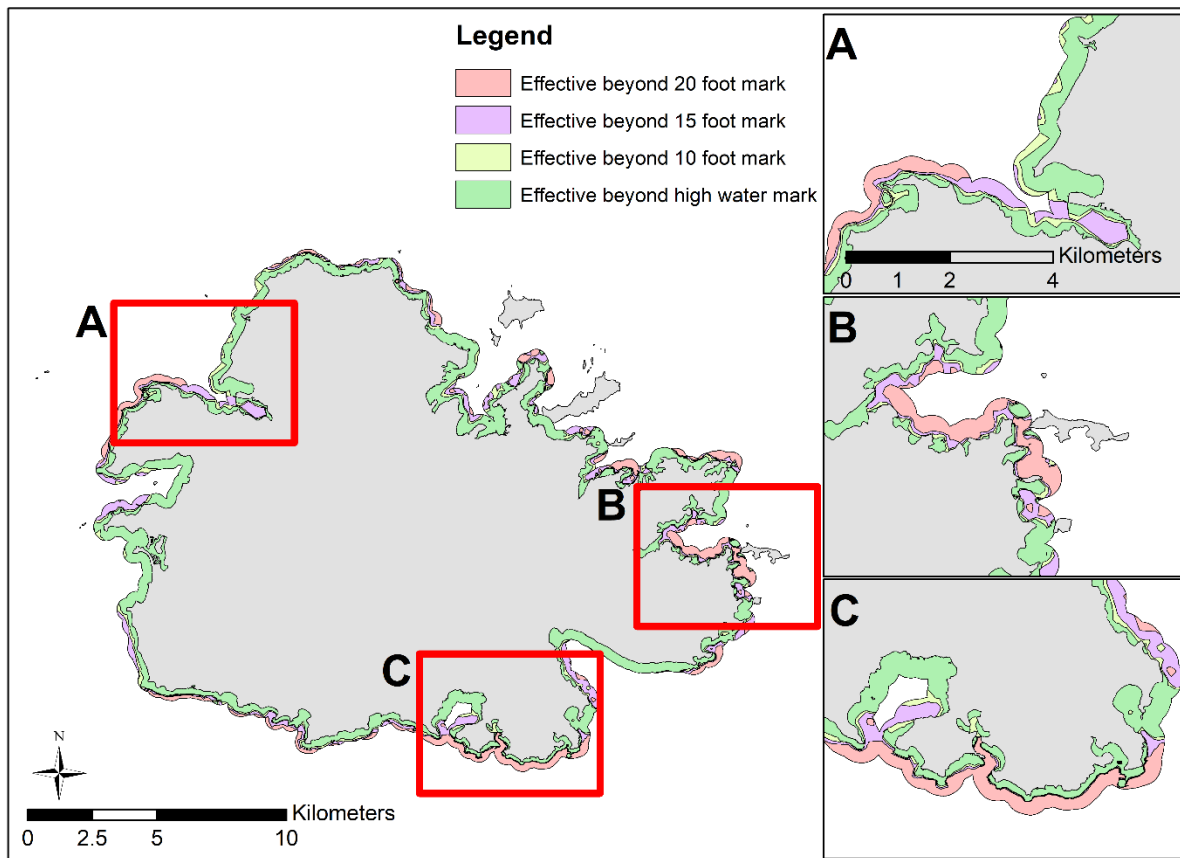
emplaced cannon, and as a protective arc for friendly shipping which is vulnerable to interdiction by privateers. The results for the whole island demonstrate that Antigua’s reefs, bays, and inlets provide a substantial defensive barrier which protects the island from vessels, but also highlights the difficulties in fomenting a proper defensive plan with the poor armament resources available to the island.



*Figure 3.10: Map depicting the 800-yard effective ranges for 24- and 18-pounder cannons overlaid with the depth of water. Inset A) is detail from St. John’s Harbour, B) shows the areas around Muddy Bay, and C) depicts the coastline between Falmouth Harbour and Mamora Bay. Illustration by Christopher K. Waters.*

When looking at the island physically, without consideration for town, plantations, or other vulnerable infrastructure, just over half of the water around the island (58.2%) is within the effective range of a 24-pounder cannon (800 yards) from small vessels (Figure 3.10). When pushing this out to the maximum range possible for 24-pounders, 2600 yards, the area around

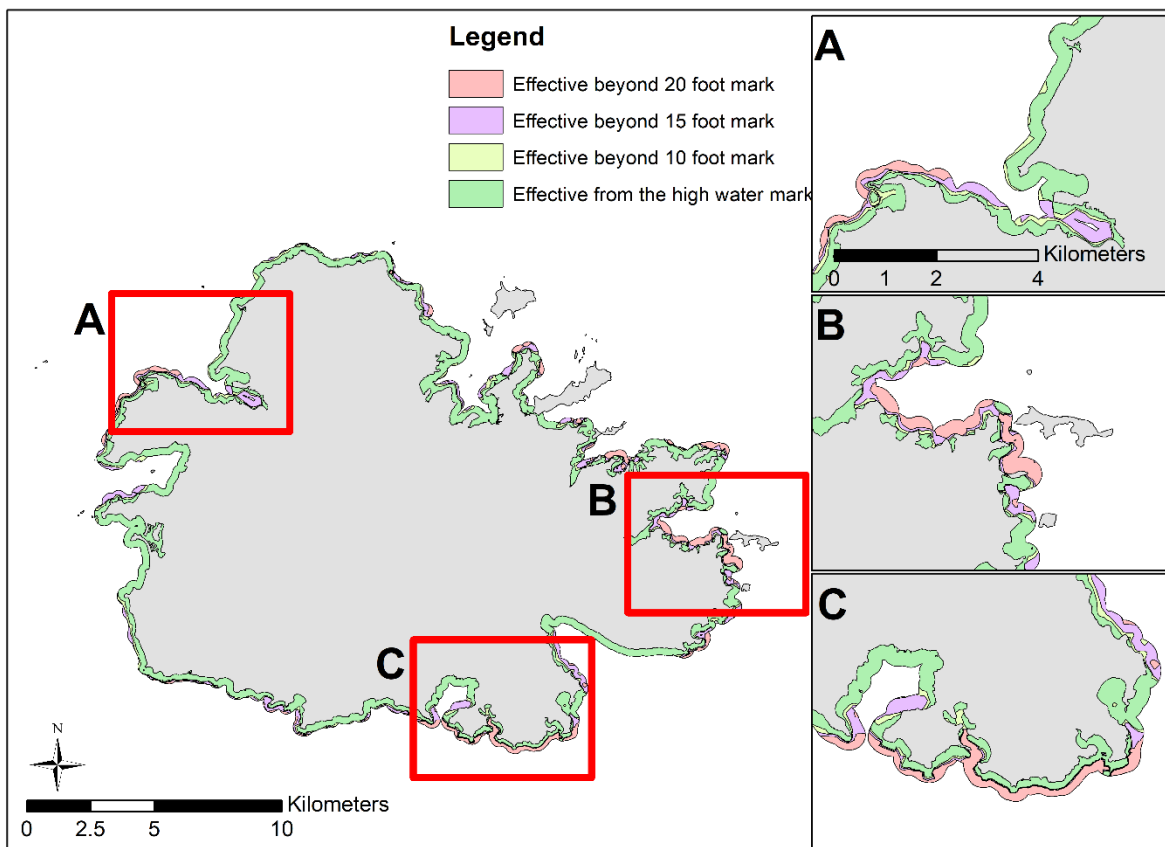
Antigua which falls under this umbrella increased to 70.8% for small vessels. The percentage of the area which is protected drops dramatically for larger vessels with deeper draughts. For instance, only 30.5% of the firing arcs from the coastline cover areas of water 20 feet or deeper at an 800-yard effective range. This expands to only 55.1% of the total area when considering the maximum effective ranges of 2,600 yards, suggesting only half of the island was within range of the largest cannons found in Antigua. In terms of cannon deployment, consideration of where to put guns of a certain caliber directly impacts the distribution of guns around the island.



*Figure 3.11: Map depicting the 400-yard effective ranges for 12- and 9-pounder cannons overlaid with the depth of water. Inset A) is detail from St. John's Harbour, B) shows the areas around Muddy Bay, and C) depicts the coastline between Falmouth Harbour and Mamora Bay. Illustration by Christopher K. Waters.*

The efficacy of smaller caliber cannons are severely circumscribed by Antigua's natural geography. Cannon with effective ranges at 400 yards or fewer (12-pounders and smaller),

become rapidly ineffective in defending the island (Figure 3.11). While at a 400-yard range, 40.8% of the island is within an effective shot for small vessels, the percentage of area where these calibers of cannons might effectively target the largest vessels is reduced to only 14.8%. At a maximum range, a 12-pounder could still put up a generous defense, with 47.5% of the deepest water still within reach. In terms of placement, in theory, considerations of range and effectiveness should factor significantly more into the judicious selection of where cannon of these caliber should be deployed in order to maximize their effect.



*Figure 3.12: Map depicting the 300-yard effective ranges for 6- and 4-pounder cannons overlaid with the depth of water. Inset A) is detail from St. John's Harbour, B) shows the areas around Muddy Bay, and C) depicts the coastline between Falmouth Harbour and Mamora Bay. Illustration by Christopher K. Waters.*

The smallest caliber weapons, 6-, 4-, and 3-pounders, on the other hand, are largely useless at their most effective ranges against all sailing vessels (Figure 3.12). While 6-pounders

are effective at 300 yards, this only constitutes 32.5% of the area with a depth between 10 and 15 feet. When measured for the largest vessels, the area drops to a mere 9.6% of the island. With the even smaller caliber 3- and 4-pounders, the effective coverage is almost negligible, with only 12.7% of the area between 10 and 15 feet depth within range and dropping to only 2.3% of the total area in which deep water vessels can operate. While the maximum ranges for all three of these calibers increase this area significantly, (67.3% and 65.2% for small vessels respectively, and 42.4% and 39.4% for the largest vessels respectively), as discussed above, maximum range reduces the accuracy of the shot and its ability to penetrate through a wooden ship's hull is lessened. This means that these small caliber weapons are severely circumscribed in their ability to keep a vessel away from Antigua's coastline. This should, in theory, dictate their placement on the landscape, limited to areas where the water runs deep close to the coastline, but also on vulnerable stretches of the coastline—beaches—where invasions might take place. Here they could be deployed to oppose small landing craft, rowed gigs, small cutters, and other shallow water vessels, from landing troops. These weapons would, effectively, be anti-personnel weapons, rather than used against wooden vessels at range (Table 3.3).

*Table 3.3: Hypothetical cannon range coverage of areas around Antigua as a factor of bathymetric depth.*

<b>Percent of territory covered by cannon ranges at different bathymetric depths.</b>				
<b>Range (Yards)</b>	Less than 10 feet Depth	Between 10 and 15 feet Depth	Between 15 and 20 feet Depth	Deeper than 20 feet
<b>100</b>	100%	12.7%	7.2%	2.3%
<b>300</b>	100%	32.5%	22.5%	9.6%
<b>400</b>	100%	40.8%	30.2%	14.8%
<b>800</b>	100%	58.2%	47.5%	30.5%
<b>1200</b>	100%	65.2%	55.9%	39.4%
<b>1400</b>	100%	67.3%	58.5%	42.4%
<b>1800</b>	100%	70.8%	62.6%	47.5%
<b>2600</b>	100%	75.0%	68.2%	55.1%

### *Wind Direction*

Archaeologists have long modeled ship movements to determine port locations and establish trading connections. The purpose of these models is largely to illustrate the complex networks of exchange across a maritime cultural landscape, but also to assess the capabilities of harbor facilities (Safadi 2015). Leidwanger (2015: 3302-3303), however, correctly stated that these models “leave little room for the complexities of real seafaring in a dynamic environment where universal averages may not be consistently meaningful.” He applied wind direction to a model of ancient Mediterranean exchange based from Bodrum and the data gathered from the *Kyrenia II* sea trials to a GIS environment and extrapolated speed over time to map how far an ancient Mediterranean vessel might sail to any given point around Bodrum. His results show that, while holding time constant, distance varies considerably, with a vessel making very little progress upwind, while travelling significantly farther downwind in the same amount of time. Leidwanger concludes that in order to understand the ancient maritime landscape, archaeologists need to test their original models and routes to better understand choice and relationships.

While Leidwanger’s (2015), analysis and conclusions are incredibly important, he is operating on a regional scale and assuming open water sailing without obstacles. This defensibility model uses wind direction as a mitigating factor: given the prevailing wind direction, how close can certain vessels approach Antigua’s coastline without getting stuck. This question is applied to sixteen different scenarios derived from four classes of vessel draught and two classes of sailing rig (above) and applied to two different wind directions. Since this analysis is only concerned with how close a vessel might reasonably get to Antigua, time and speed are both excluded from this analysis.

Since this model is concerned with possibility, the analysis focused on the minimum possibility for a vessel to reasonably approach and remove itself from Antigua's coastline. Using the bathymetric analysis (above), I plotted hypothetical routes on a navigational chart which would bring a vessel in as close as possible to the coastline using the maximum wind bearing and still successfully be able to navigate around hazards such as rocks, shoals, reefs, and shallow water using only one course change (Figure 3.13, 3.14). The single course change, a tack for fore-and-aft rigged vessels, a jibe for square rigged vessels, was used as a way to measure how fast a vessel might approach the coastline. While most vessels might be able to eventually move into tight spaces, each change in course represents time lost and loss of forward momentum, both aspects which would hinder a successful attack. No limitation was given on

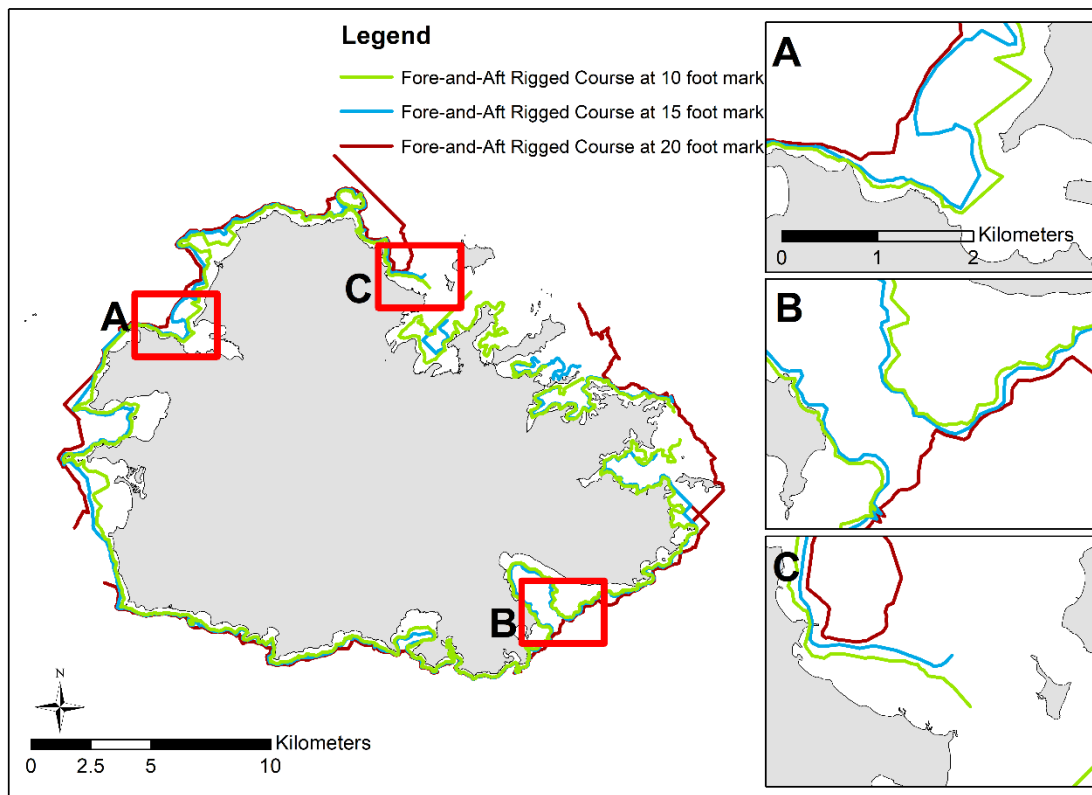
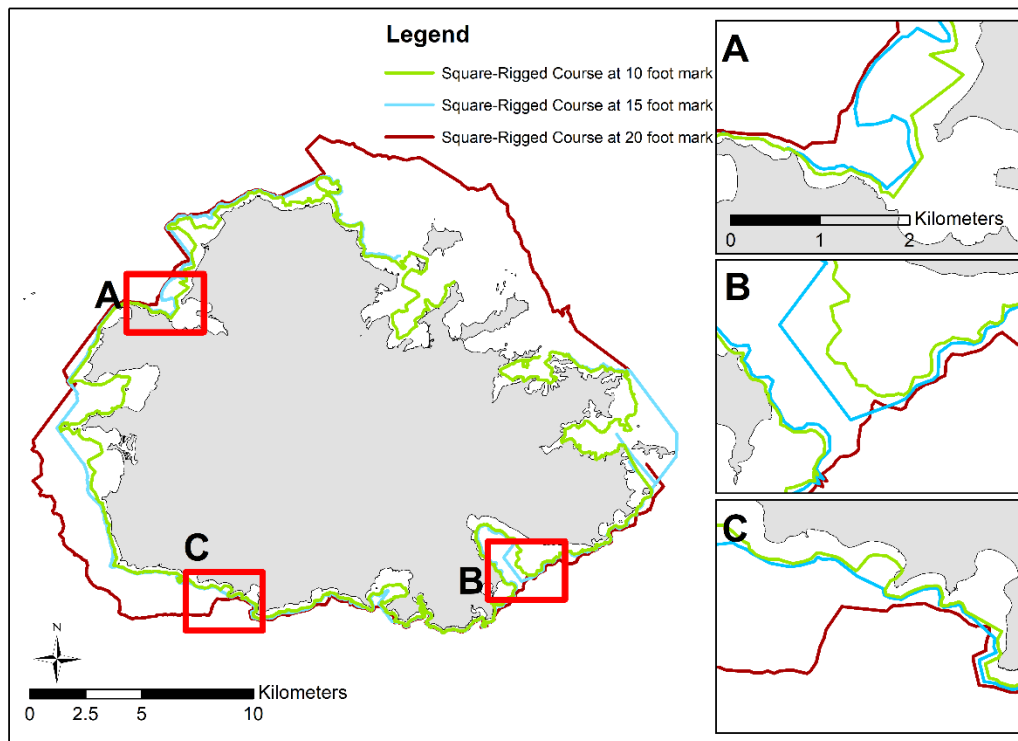


Figure 3.13: Fore-and-Aft rigged vessel sailing around Antigua based on the wind coming directly from the east. Details of A) St. John's Harbour, B) Willoughby Bay, and C) entrance to Parham Harbour. Illustration by Christopher K. Waters.

the direction of the approach, with the assumption that defenses were designed to counter approaching vessels regardless of whether vessels were arriving from the north or south.

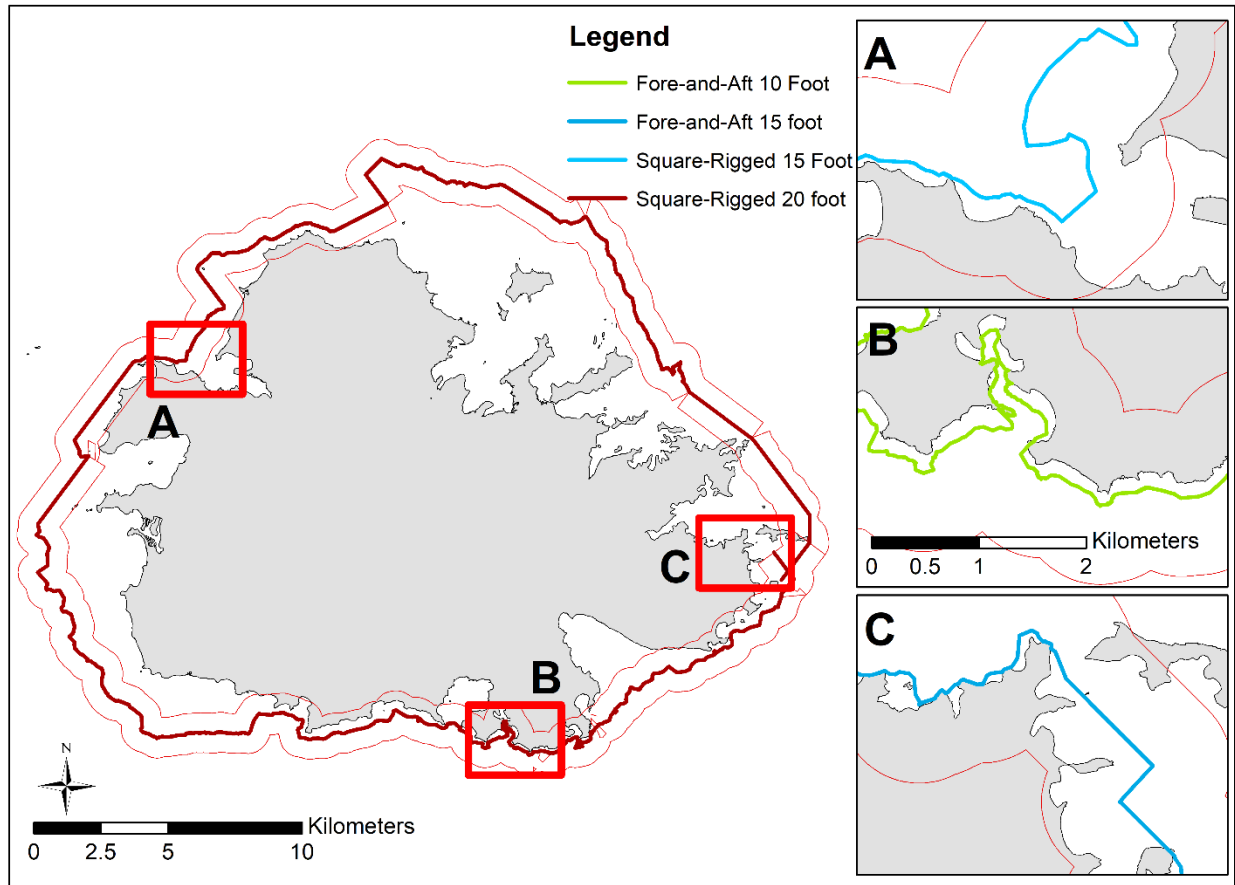


*Figure 3.14: Square rigged vessel sailing around Antigua based on the wind coming directly from the east. Details of A) St. John's Harbour, B) Willoughby Bay, and C) and Cades Bay and Old Road. Illustration by Christopher K. Waters.*

The second metric is defined by how much of the coastline a historic sailing vessel can threaten limited by draught and sailing capabilities. Threaten is defined as within 800 yards, the maximum effective distance vessels could engage with their cannon effectively. To identify the coastlines, the results from charting the courses of the two different sailing rigs were used to identify the maximum possible angles for vessels to be able to approach the coastline, as well as be able to leave the coastline, under its own power, and only within one direction change. The intercept was then traced onto the three different bathymetric curves, 10, 15, and 20 feet, until a vessel might reasonably no longer be able to sail onto the coast, and then the trace terminated. The resulting lines were then buffered to a distance of 800 yards, and then using the resulting



buffer to erase the parts of Antigua's coastline which did not intercept with the buffer (Figure 3.15). The results were the stretches of Antigua's coastline considered threatened by sailing vessels.



*Figure 3.15: Sailing courses with an 800-yard buffer showing the intercept between the idealized course and the coastline of Antigua. Insets show detail of A) St. John's Harbour, B) English Harbour, and C) the channel between Muddy Bay and Green Island. Illustration by Christopher K. Waters.*

## Results

The results of this analysis offer a varied picture of Antigua's coastal vulnerability. Fore-and-aft rigged vessels, by virtue of their greater maneuverability, threaten a greater part of Antigua's coastline. Their ability to sail closer to the wind allows for more maneuverability, and therefore greater access into many of Antigua's small bays and inlets. By calculation, small fore-and-aft

rigged with draughts between 10 and 15 feet could get within 800 yards of the coastline 85.1% of the time with the prevailing winds arriving from the east. This is somewhat curtailed by larger vessels drawing between 15 and 20 feet of water, allowing for only 71% of the total coastline. The largest vessels, however, could only reach 39.7% of the coastline, this due in large part to the shallow water around the North Sound preventing these vessels from approaching the coast. It is important to note here, however, that a fore-and-aft rigged vessel with a draught greater than 20 feet would have been exceedingly rare, and thus, not particularly useful in considering the defensibility of the island (Figure 3.16).

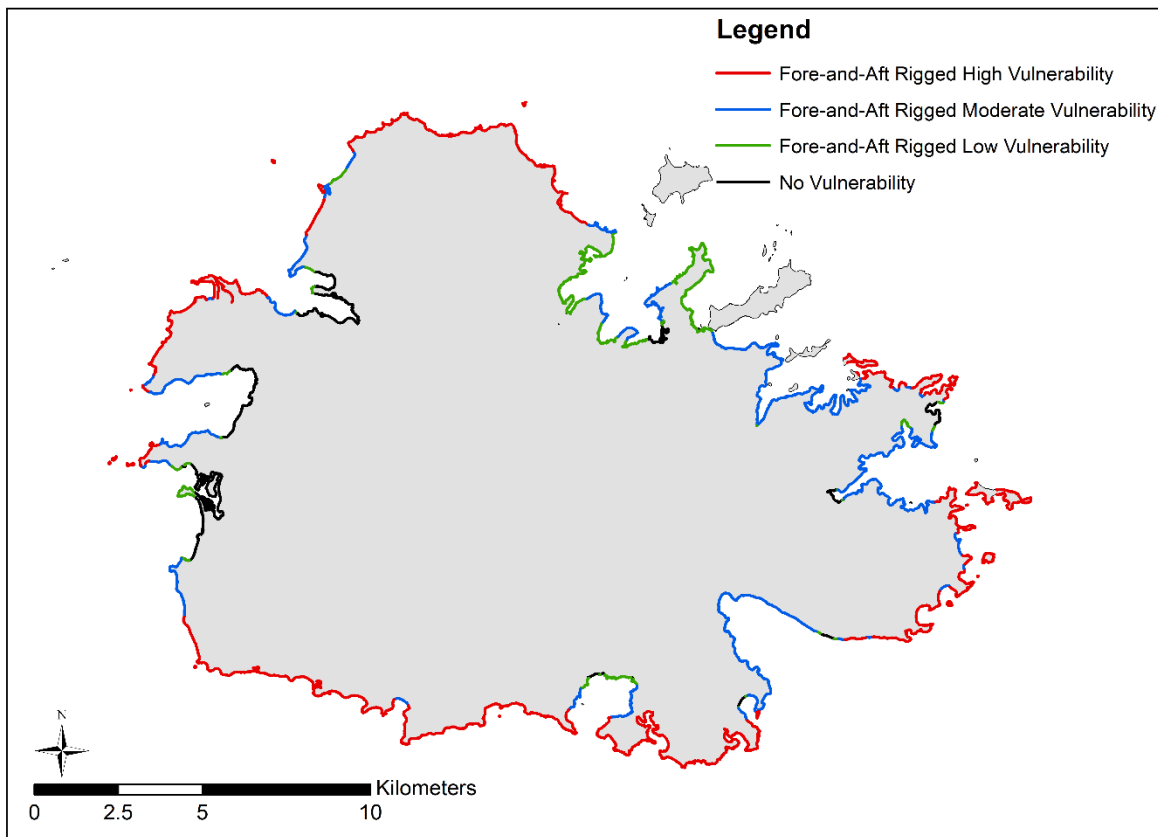
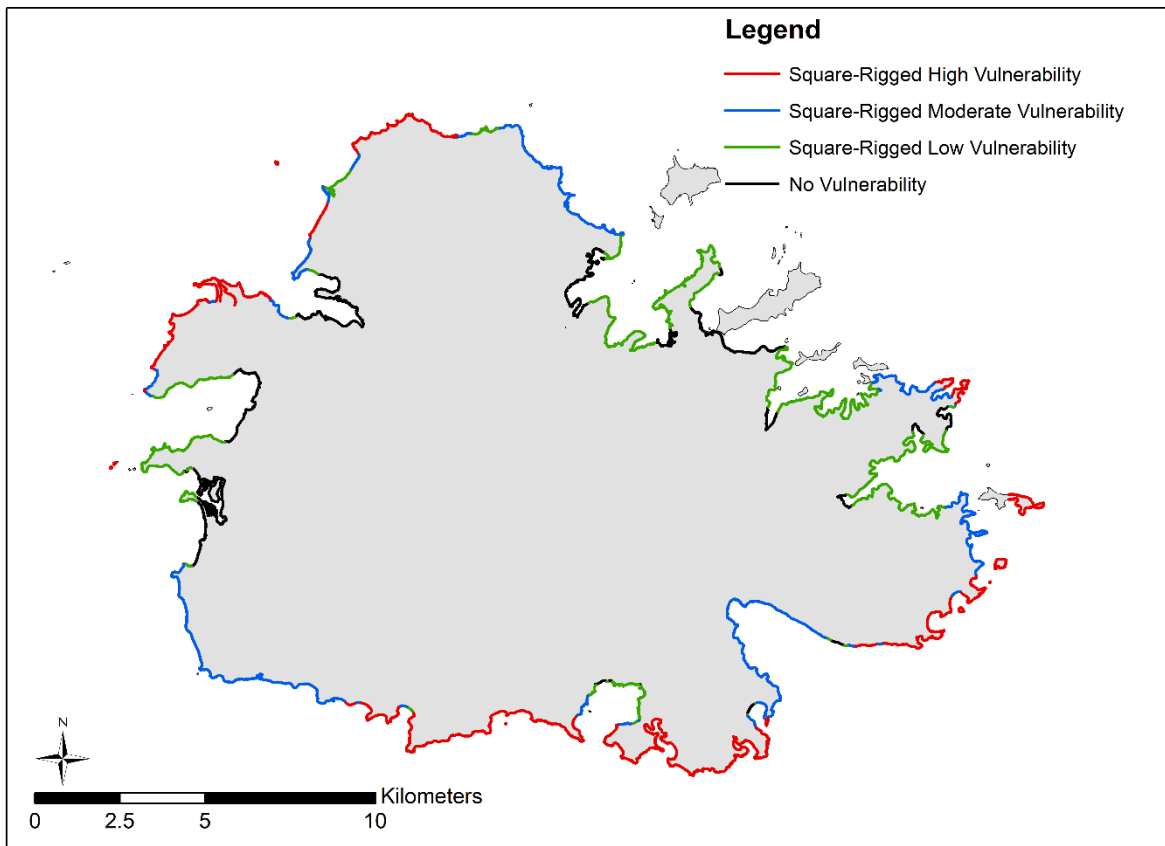


Figure 3.16: Coastline vulnerability for fore-and-aft rigged vessels. Illustration by Christopher K. Waters.

Square-rigged vessels, with their inability to sail as close to the wind as fore-and-aft rigged vessels, had a much more difficult time of threatening Antigua's coastline. While the

smallest class of vessel was still able to approach 78.0% of the coastline, vessels between 15 and 20 feet draught could only reach less than half of the coastline (49.5%). The largest vessels, a class which contains more eighteenth-century warships, could only threaten about a quarter of the island's coastline (Figure 3.17).



*Figure 3.17: Coastline vulnerability from square rigged vessels. Illustration by Christopher K. Waters.*

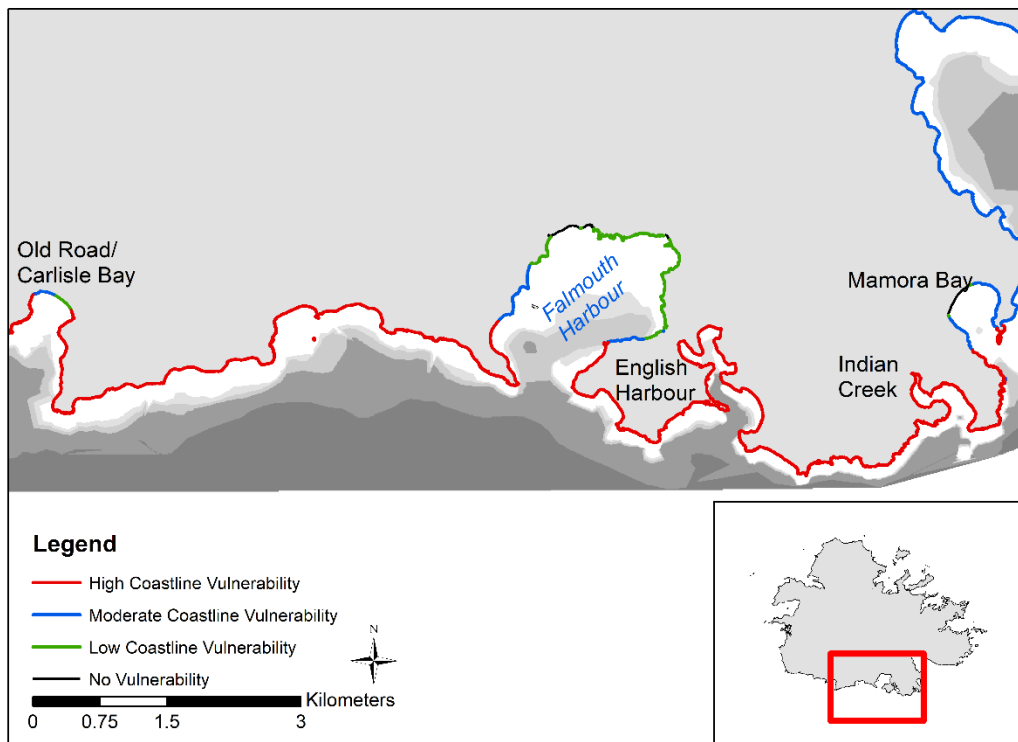
#### *Antigua's Fortifications in Relation to Vulnerable Coastlines*

Spatially, the most threatened areas of the island include the south coast, parts of the east coast, and the west coast around St. John's (Table 3.4). The south coast is spatially threatened due to the deep water close to the shore, and wind allowing vessels to both close in towards the coast, but also bear away easily. Much of this coast, however, is covered in steep cliffs, and unsheltered bays with rougher seas, mitigating some of the possible threat. However,

Rendezvous, Falmouth Harbour, Indian Creek and Mamora Bay are all possible sites with easy shore access which might be considered appropriate for landing troops (Figure 3.18).

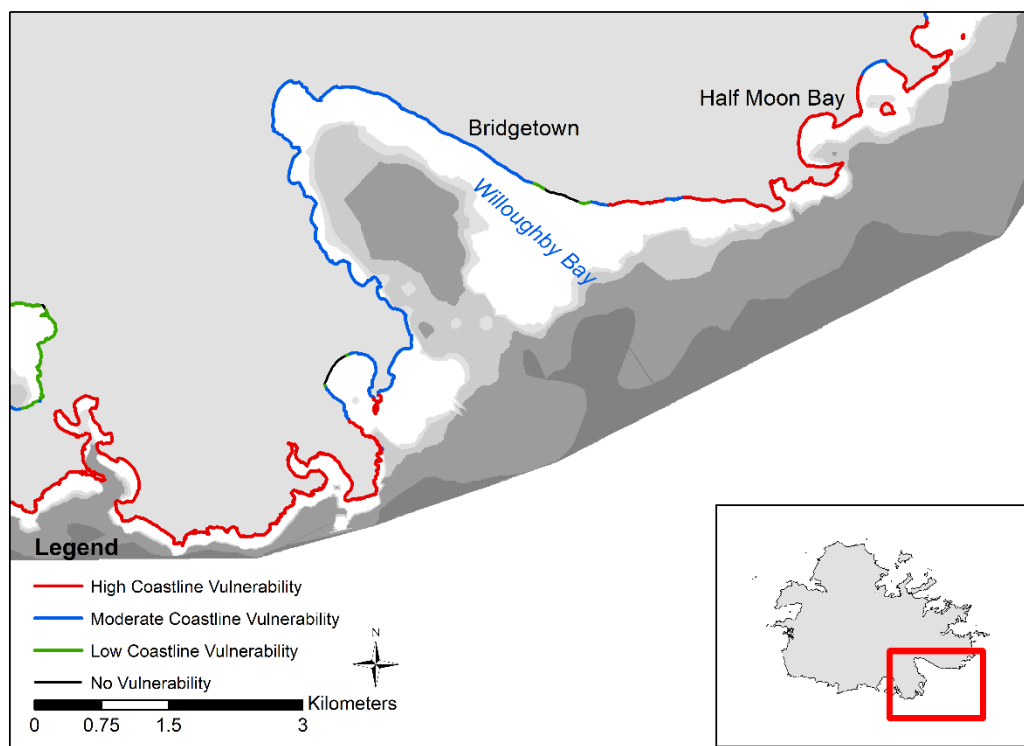
*Table 3.4: Percent of Antigua's coastline within 800 yards of the closest possible sailing path of different size and rigged vessels given a minimum number of directional changing maneuvers with the wind blowing directly from the east.*

Sailing Rig	Draught	Wind Direction	% Total Coastline
Fore-and-Aft	10 to 15 feet	90°, East	85.1%
Fore-and-Aft	15 to 20 feet	90°, East	71.8%
Fore-and-Aft	More than 20 feet	90°, East	39.7%
Square Rigged	10 to 15 feet	90°, East	78.0%
Square Rigged	15 to 20 feet	90°, East	49.5%
Square Rigged	More than 20 feet	90°, East	26.2%



*Figure 3.18: Coastline vulnerability from Old Road to Mamora Bay. Illustration by Christopher K. Waters.*

Further to the east, Willoughby Bay is threatened by all but the largest of vessels which might not make it through the narrow, reef protected entrance into this large harbor. Favorable wind conditions, however, and calm waters, make this bay an extremely threatened area of the island, especially from vessels arriving from the south east, which could sail directly into the bay. This weakness was briefly recognized by the Antigua government in 1745 when they recommended sinking a couple of small vessels across the entrance of the harbor to prevent an enemy from landing within the bay (NAAB 324: 3 May 1745). While the large warships might not be able to make it into the harbor for support, their presence to windward of the Dockyard put the Royal Navy at an extreme disadvantage and effectively prevented them from travelling from English Harbour up the coast (Figure 3.19).



*Figure 3.19: Coastline vulnerability of Willoughby Bay and Half Moon Bay. Illustration by Christopher K. Waters.*

The east coast also presents with long stretches of vulnerable coastline from Elm’s Point to Frier’s Head being particularly accessible to the largest warships, and some vulnerability from Frier’s Head to the entrance into Nonsuch Harbour between Fort Harmon and Green Island. While this particular stretch of coastline is easy to sail onto, sailing away is difficult, as the wind and waves push vessels onshore. Snapped anchor cables, poor planning, or even a storm, might wreck vessels upon the coastline. This makes operations here difficult, with only small bays and coves available, and beaches subject to considerable surf (Figure 3.20).

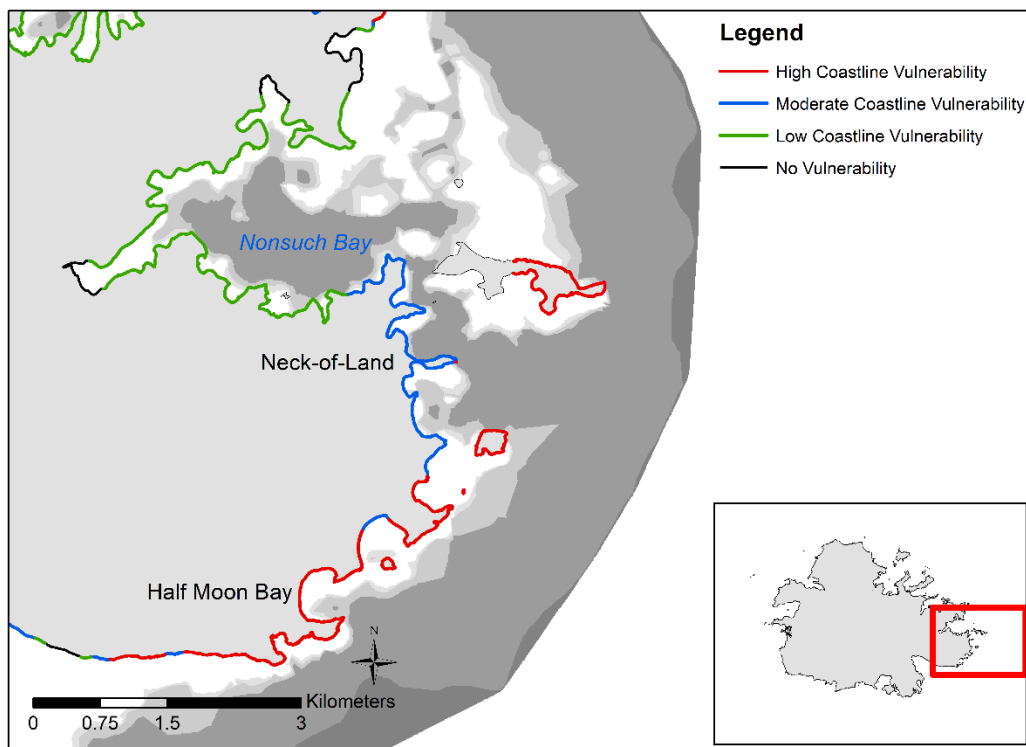


Figure 3.20: Coastline vulnerability of the east coast. Illustration by Christopher K. Waters.

Nonsuch Harbour allows vessels to penetrate deep into Antigua’s central plain, but offers difficult navigation from inshore shoals and reefs, wind blowing directly into the mouth of the harbor. There are also only two narrow channels, one from the north and the other in between Fort Harmon and Green Island. The northern channel appears on the Baker Map to be very

narrow, and extremely shallow at its entrance, hindering movement in and out of Nonsuch Harbour. The southern channel, however, is deep and more accommodating, although difficult for square rigged vessels should the wind be blowing anything more than at 90°. Even then, square rigged vessels could only traverse just into the harbor, with little room to maneuver to go deeper than Conk Cove. Baker confirms this with his depiction of a square-rigged ship anchored just off Conk Cove. Fore-and-aft rigged vessels, however, could easily move about the bay, threatening some of Antigua’s large and productive sugar plantations just inland. This threat was recognized by no fewer than five separate fortifications and guard houses constructed along this bay in the seventeenth and eighteenth century (Figure 3.21).

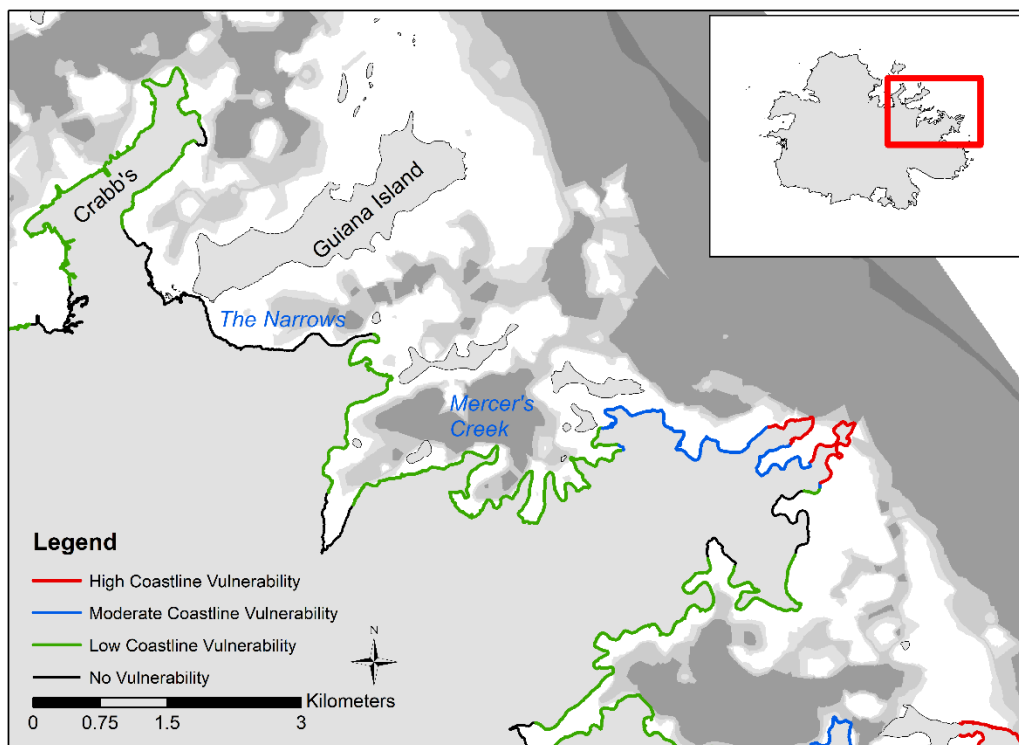


Figure 3.21: Coastline vulnerability of the north coast. Illustration by Christopher K. Waters.

In the model, the area around Deep Bay is considered highly threatened due to the deep water off of Indian Town Point. Despite this, this stretch of coastline is rocky, subject to

powerful waves, and protected by shoals and reefs which makes maneuvering vessels, even small launches for landing soldiers, almost impossible. There is some threat to Mercer's Creek insofar as narrow channels into this bay existed, however, these are limited to only the smallest vessels. This largely protects Mercer's Creek from Sea View Farm to The Narrows between the mainland and Guiana Island.

Crabb's Peninsula and Parham Harbour are almost completely inaccessible by square-rigged vessels unless the wind shifts to the north. The course through the historic channel into the harbor is just about 60°, so that gaining admittance into that harbor is almost impossible unless wind conditions are perfect. Additionally, shallow water precludes the largest vessels from entering into this sheltered bay as well. The reef system to the north likewise protects this area significantly, with only a narrow, shallow channel allowing admittance. Even then, the sandbars and shallow water within the harbor make navigation difficult. For defensibility

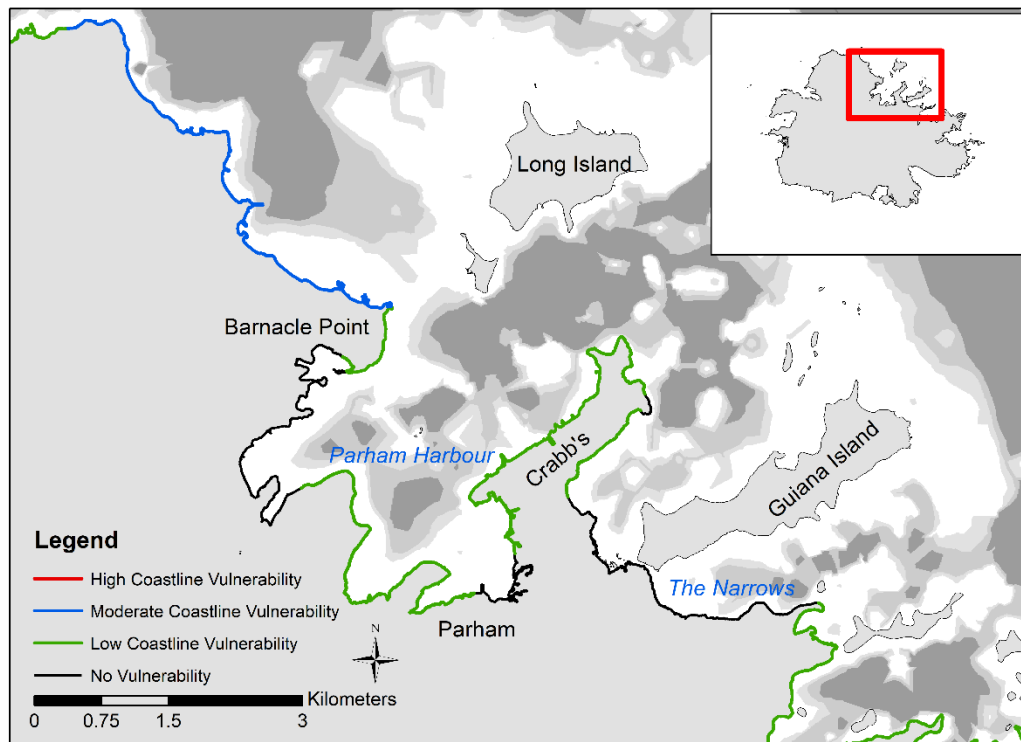
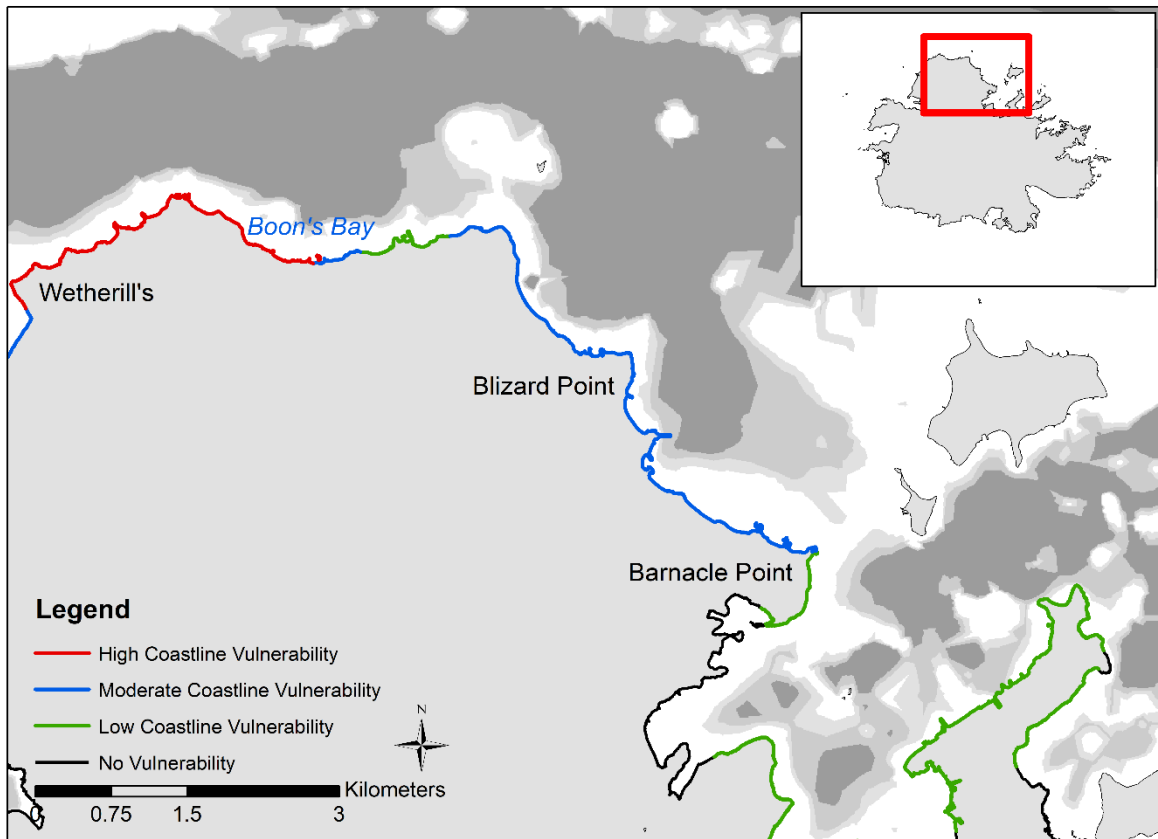


Figure 3.22: Coastline vulnerability of Parham Harbour. Illustration by Christopher K. Waters.



purposes, this makes the Parham Harbor relatively well protected, limiting entrance to warships. Fore-and-aft rigged vessels, however, with their greater maneuverability could threaten the shipping within the harbor, and with the prevailing winds blowing from the east, be able to escape the harbor quickly if necessary (Figure 3.22).

The coastline from Barnacle Point to Hodges Bay is more threatened due to its accessibility to all vessels except for the largest square-rigged ships (Figure 3.23). This part of the north coast is



*Figure 3.23: Coastline vulnerability from Barnacle Point to Wetherill's. Illustration by Christopher K. Waters.*

protected by a large system of offshore reefs and shoals, limiting navigation against the wind.

Whereas more shallow channels are numerous between the scattered reef system, only one directly to the north of Prickly Pear Island offers a deep enough channel to allow the largest vessels closer inshore. Navigating in the channel near Prickly Pear Island is curtailed and square-rigged vessels can only reach as far as the reef system around Prickly Pear Island. From

here, however, vessels can make their way around the coastline easily, often within only a short distance from the actual shoreline, to Wetherill's Point. While this coastline is extremely threatened, the beaches are small, protected by reef systems, and front onto large, steep sided hills. Even today, these beaches are some of the most remote and difficult to access on the island, despite their proximity to St. John's Town.

The stretch of coastline from Wetherill's Point to Fort James was identified as the most threatened part of Antigua by the legislature, and in their estimation, the place most likely to be subjected to an invasion (NAAB 324: 1 April 1745). While the prevailing winds make approaching this coastline possible from the north or the south, and the bays offer long beaches with low lying, easy to traverse, flat land just north of St. John's Town, the water is shallow

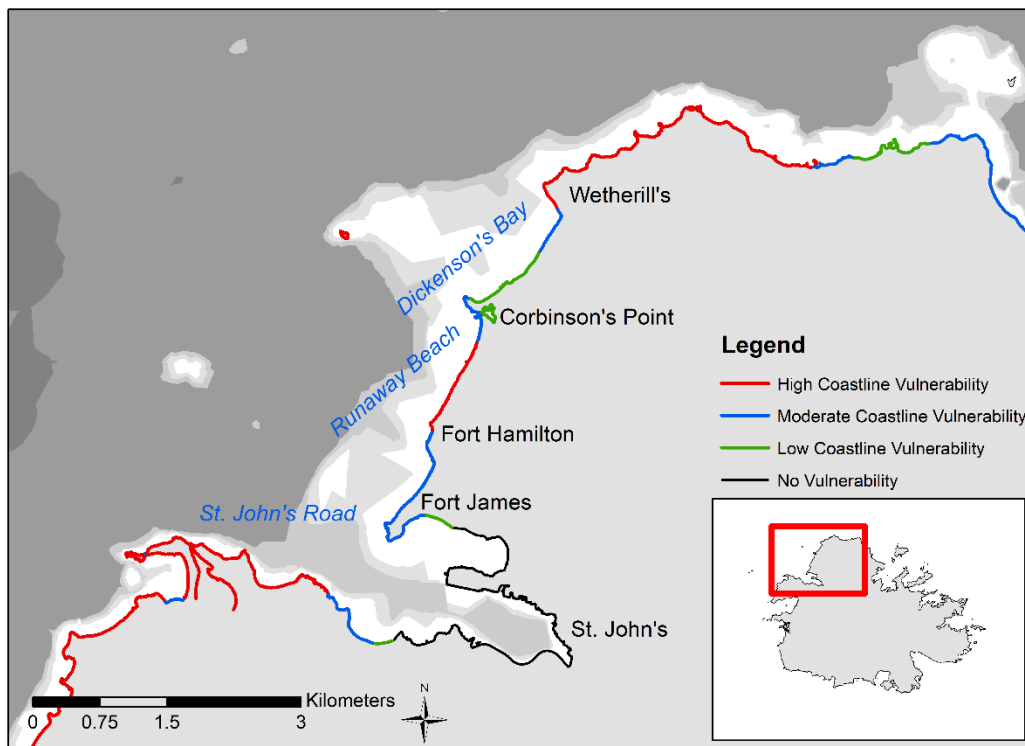


Figure 3.24: Coastline vulnerability from Wetherill's to St. John's Road. Illustration by Christopher K. Waters.

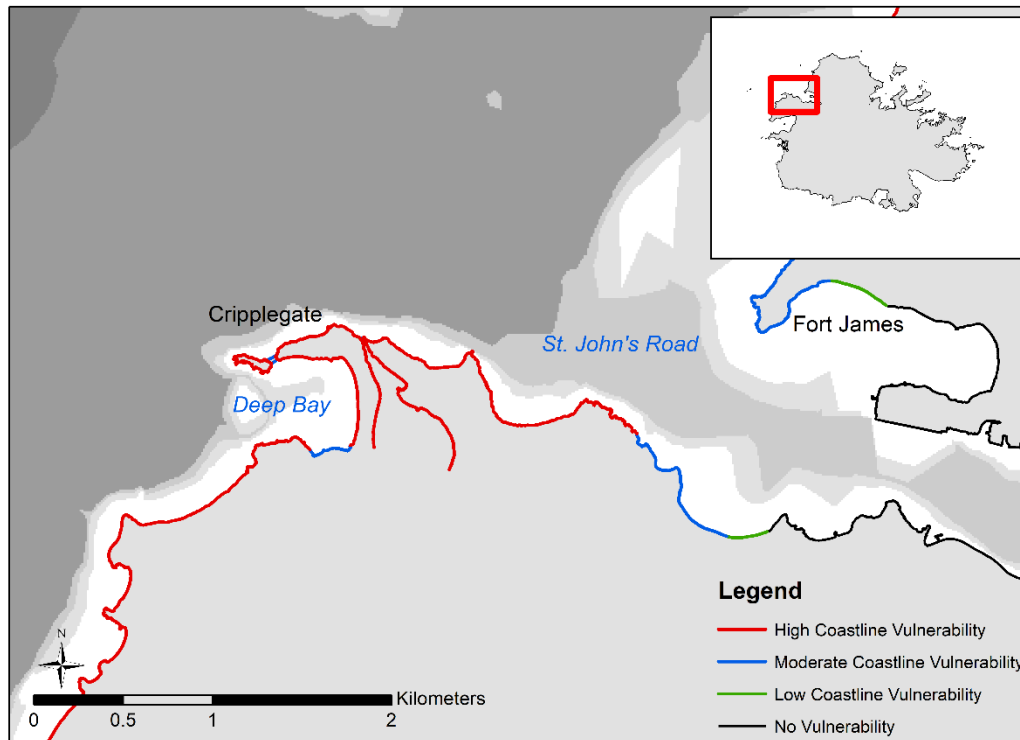
(Figure 3.24). This prevents larger vessels from coming inshore, including a large stretch of Dickenson Bay beach. The shallowness of the water also dramatically impacts the ability for the more maneuverable fore-an-aft rigged vessels to get close inshore along Dickenson Bay, reducing the threat to this stretch of coastline considerably.

The adjacent Runaway Beach, however, is incredibly vulnerable to every size of vessel. The beach is somewhat protected by Mackinnen's Pond, a swampy lagoon which stretches behind from north to south behind the beach, providing an impassible barrier, however, higher land on either side of the beach does offer opportunities to move from the beach inland quickly. With the combination of these factors, Runaway beach is the most threatened part of Antigua's coastline with the easiest accessibility and proximity to crucial infrastructure.

This threat is curtailed somewhat along Fort Bay, with deep water running farther from the coastline, offering the entrance to St. John's Harbour some protection from the largest warships which are kept some 1,000 yards from the coastline by shallow water, while being commanded by the hills to the south of St. John's Harbour. Due to the historic sandbar hampering access into St. John's Harbour and necessity of sailing upwind, the interior of the harbor is not very threatened, since only small fore-and-aft rigged vessels could maneuver under their own power into the space. While this provides natural defenses against attack, large shipping vessels had to remain outside of the harbor on the St. John's Road, where they were vulnerable to attack.

The coastline south of St. John's, from Loblolly Point to Sydsferfe's Bay is another extremely threatened coastline, with deep water and favorable wind conditions allowing vessels to get close to the shoreline (Figure 3.25). This stretch of coastline includes Deep Bay, historically the location where the French and the Prince Rupert landed in the seventeenth

century and took the battery at Cripplegate. The beaches along this coastline are also accessible, although, the hilly terrain around these bays offers some further protection against incursion. The Antiguan legislature recognized this threat, however, and proceeded to construct earthworks at Loblolly to prevent possible landings there, but also to cut off the narrow gap between Five Island's Division and the rest of the island (CO 9/22: 28 February 1757).



*Figure 3.25: Close up of coastline vulnerability from St. John's Road to Deep Bay. Illustration by Christopher K. Waters.*

Five Island's Harbour is characterized by shallow water and contrary winds, making access into this bay almost impossible for square-rigged vessels of any kind, and only moderately accessible to fore-and-aft rigged vessels without considerable maneuvering. In fact, the eastern most shoreline is completely inaccessible to all vessels due to the long stretches of shallow water (Figure 3.26). Additionally, the bay terminates in a swamp, making this area

unsuitable for an attack. Due to the eponymous small islands off of Pearne's Point, the safe passages are more than 1,000 yards away, well outside the effective range of cannon and therefore very protected.

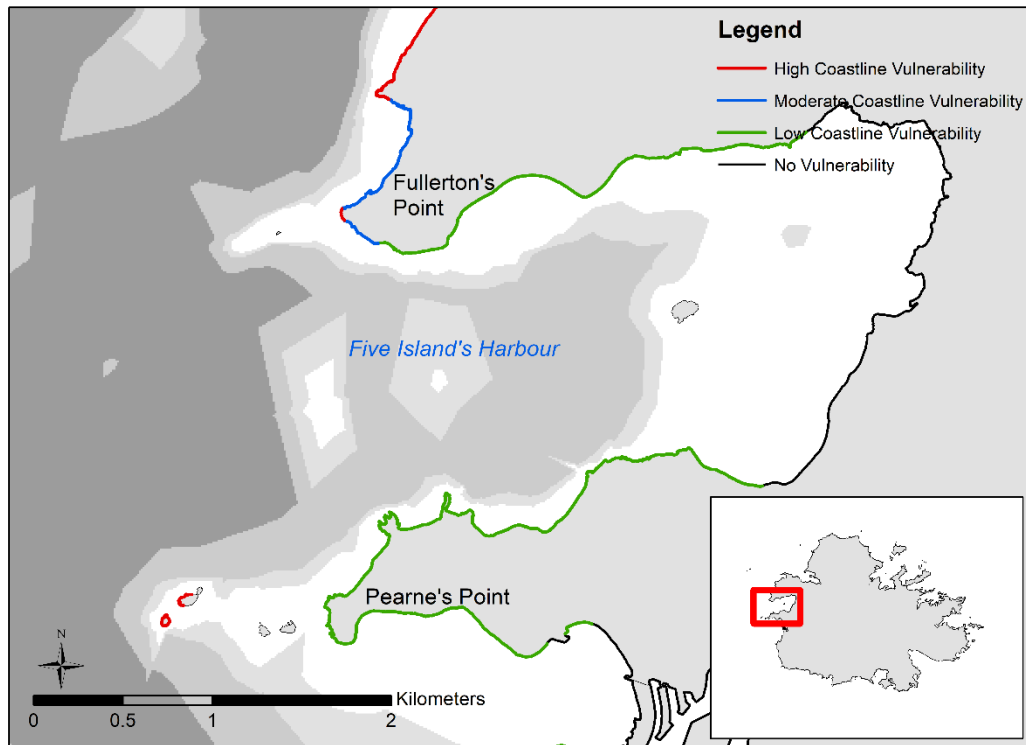
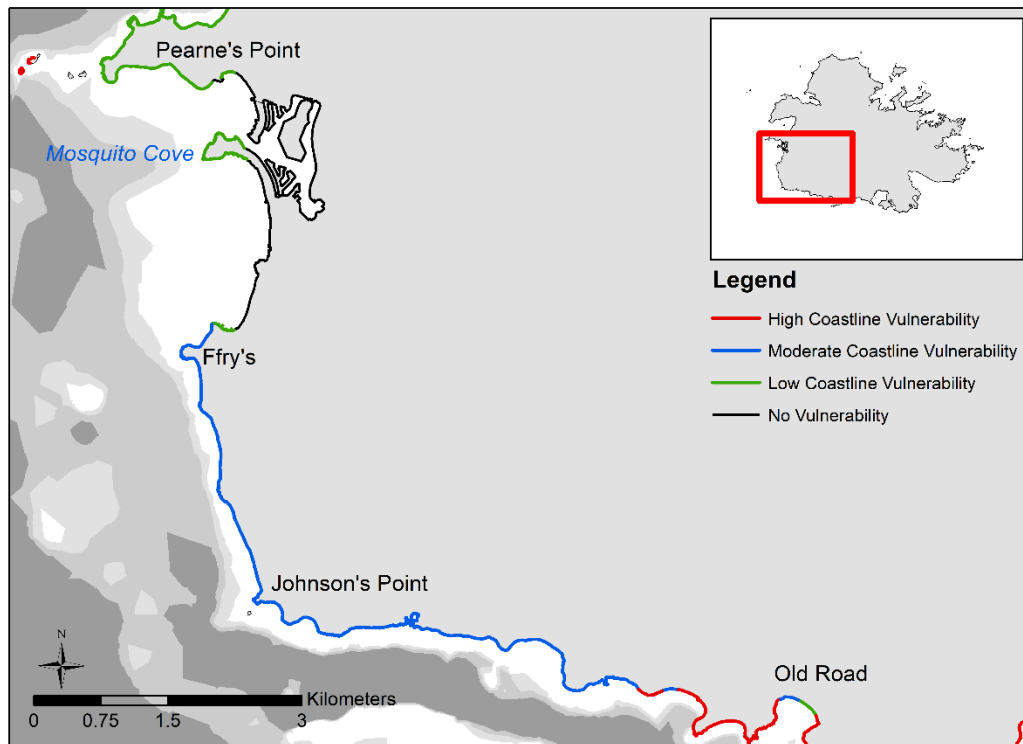


Figure 3.26: Coastline vulnerability of Five Island's Harbour. Illustration by Christopher K. Waters.

The coastline from Pearne's Point south to Old Road Bay is somewhat protected by a large network of reefs and shallows which create a barrier (Figure 3.27). The channel between the reef and the shoreline is traversable by smaller vessels of up to 20 feet draught, however, due to the direction of the winds, square-rigged vessels can only traverse the distance from south to north. Additionally, while the water is deep enough to sail up the coastline from Cade's Bay to Johnson's Point, large square-rigged vessels cannot sail out again, thus cutting them off from this stretch of coastline. Instead, they have to sail around the outside of the reef system in deep

water, keeping them far away from this stretch of Antigua's coastline. The reef network and shallow water also extends from the coastline, most significantly between Pearne's Point and Fry's Beach, encompassing Mosquito Cove (today Jolly Harbour), which is completely unthreatened by all vessels.



*Figure 3.27: Coastline vulnerability from Pearne's Point to Old Road. Illustration by Christopher K. Waters.*

In summation, the parts of Antigua's coastline considered most vulnerable based on sailing capabilities and bathymetry, are the south coast from Old Road to the east coast terminating at York Island, inclusive of Rendezvous Bay, Falmouth and English Harbours, Indian Creek, and Mamora and Willoughby Bay. The coastline from Nonsuch Bay to Parham Harbour, on the other hand, is only lightly to moderately threatened due to narrow channels, shallow water, and contrary winds limiting the ability for large and square-rigged vessels to get

closer inshore. This threat represents more from privateer raids, rather than an invasion. While large vessels are able to get closer inshore between Barnacle Point and Wetherill's Point, especially between Hodges Bay and Wetherill's, the steep coastline and reef system present less of a threat than this model might demonstrate. The coastline between Wetherill's and Sydsferfe Bay, inclusive of St. John's Harbour, however, presents a complex picture of threats, simultaneously representing only a low to moderate threat at Dickenson Bay, to an extremely high threat at the adjacent Runaway Bay. This area of Antigua, based on the model, is the most threatened by sailing vessels. Finally, the stretch of coastline from Five Island's Harbour to Old Road, represents a stretch of coastline with a low to no threat, punctuated with a moderate threat level around between Johnson's Point and Cade's Bay.

## **Conclusion**

This model shows that Antigua's coastline was differently accessible based on the eighteenth-century affordances of sailing capabilities, vessel draught and artillery range.<sup>23</sup> We can also assume, based on legislative discussions, that much of this information was available to Antigua's elites, and indeed, that they were able to identify stretches of coastline which were more vulnerable to an attack. Based on this information, were Antigua's fortifications distributed in a way which addresses these identified vulnerabilities? Was the whole island protected, or were certain parts of the island better protected than other? The following chapter contextualizes the results of this model and situates Antigua's fortifications and the political decisions affecting those fortifications, assessing their efficacy in affording a proper defense.

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<sup>23</sup> For a critical assessment of the model see Appendix C.

## Chapter 4: Antigua's Fortifications as External Defense

*The Effects of the Conspiracy had not ceas'd when war broke out, First with the Spaniards, afterwards with a nearer and more formidable Power the French. This threatening Conjecture naturally call'd upon us to prepare for our Defense and of necessity Involv'd us in great Labour and Expense to repair the old Fortifications which were much fallen to Decay under the various Discouragment of Dry Weather, Blasts and low Markets during the Peace to Erect Seven new Fortifications where the Coast lay most open to the Descent of the Enemy to Build Guard Houses round the whole Country and to support the Gunners and Matrosses upon Fifteen Fortifications. The Hon.ble the President and Members of the Council and Speaker and Gentlemen of the Assembly To His Excellency William Mathew Captain General and Governour in Chief in and over all His Majesty Leeward Charribbee Islands etc., 8 March 1749<sup>1</sup>*

### Introduction

To paraphrase Matthew Johnson's (2002: 1) descriptions of castles, the fortification 'story' "has been repeated countless times in books, television programmes and heritage displays." This chapter addresses the military story of these fortifications, assessing their efficacy in protecting Antigua individually, and as part of a larger network of defenses around the island. Specifically, I investigate the claim that the axiomatic defensive goal of the Caribbean elites was the creation of "rocklike island fortresses," capable of withstanding concerted attacks by indigenous and European incursions (Buckley 1998: 67). Indeed, because Antigua was never attacked in force after 1666, the long held historical assumption is that Antigua's fortification network, unlike its Caribbean neighbors, was successful in its primary mission, establishing enough of a deterrence for others to avoid the island in favor of other targets (e.g. Nicholson 1994a). Here, I test this assumption by developing a model whereby we can evaluate artillery fortifications in their context, and apply historical contingencies, or affordances, to create a representational concept of how they might have fulfilled their intended mission: in this case military defense.

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<sup>1</sup> CO 9/22: 8 March 1749.



By assessing the individual capabilities and spatial distribution of Antigua's forts and comparing that to the social and political developments expressed in archival materials, I demonstrate that the fortification network was neither constructed as a holistic system designed to protect the entire island, nor functioned as an effective system employing contemporary fortification theory. I conclude that Antigua's fortifications do not represent a viable deterrence, but rather they served local political purposes and the island enjoyed their relative safety *not* because of their fortification network at all, but rather through luck and geography.

This chapter starts with a brief discourse on the development of seventeenth and eighteenth-century fortification theory and architecture in Europe to contextualize the position in which Antigua, and the wider Caribbean, found themselves. Specifically, I engage with understanding the goals of coastal defense and ship-to-land warfare in the Age of Sail. Thereafter, I analyze a selection of Antigua's fortifications individually for the uses and misuses of military engineering practices and their position in relation to general fortification theory, and their capabilities as individual fortifications in protecting their stretch of coastline. Finally, I scale up to examine the distribution of the island's defenses and demonstrate that while a holistic defense of the island may have been considered strategically useful, in practice the placement of these fortifications fulfills specific social and economic agendas of the plantation elites: sacrificing long term strategic thinking for localized tactical considerations—trade; this is the martial landscape. I conclude by returning to the critique of overestimating the military potency of fortifications in colonial contexts.

### **What an artillery fort should look like**

A good defensive position provides the defender with an overwhelming advantage to initially deter, and ultimately violently stop, an attacker. The archaeology of warfare defines this metric

as *defensibility*: the measure of a site assessed for its natural and enhanced characteristics for giving a defender an advantage over an attacker (Martindale and Supernant 2009).<sup>2</sup> This defensive paradigm has been traced cross culturally in the archaeological record, with similar defensive strategies being employed through time and across space (Keeley et al. 2007). Gunpowder altered the defensive landscape. Charles VIII of France (r. 1483-1498), invaded Italy in 1494 with the largest artillery train gathered at that point. While new conventions in fortification designed to counter artillery were already underway in Italy in the decades leading up to the Italian Wars, the massed deployment and advances in gunpowder technologies created a paradigm shift (Mallet and Shaw 2012: 185-186; 308-310). Prior to gunpowder, defense focused on allowing a small number of people to withstand a much larger enemy, forcing investment and a siege. The attacking army, in foreign territory, with long supply lines and poor infrastructure, would have to wait until the supplies behind the walls ran out, hoping that the besieging force would remain healthy and able to live off the surrounding territories, often for months, if not years, without succumbing to disease, desertion, and debt. Maintaining a standing force for any length of time required a huge amount of resources, and many castles, cities and fortresses were bypassed and left intact, or left the attacking army much reduced and often forced to lift the siege under duress (for a general overview of military architecture see Keeley et al. 2007). As the famed fortification historian Christopher Duffy succinctly states, “for as long as muscle-power and gravity offered the only propulsive force for missiles, the soaring walls of castle and city were capable of keeping out any enemy who was not prepared to devote weeks or

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<sup>2</sup> See also Arkush and Allen 2006; Arkush 2011; 2006; Bocinsky 2014; Borgstede and Mathieu 2007; Ferguson 2006; Geier et al. 2011; Keeley 1996; Keeley et al. 2007; LeBlanc 1999; 2006; Martindale and Supernant 2009; McCool 2017; McGuire and Villalpondo 2015; Redmond and Spencer 2006; Sakaguchi et al. 2009; Skowronek and Ewen 2006; Thurston 2001; Tipping 2004.

perhaps months to the work of reducing them,” (Duffy 1979: 1). Adequate fortifications gave defenders a considerable advantage.

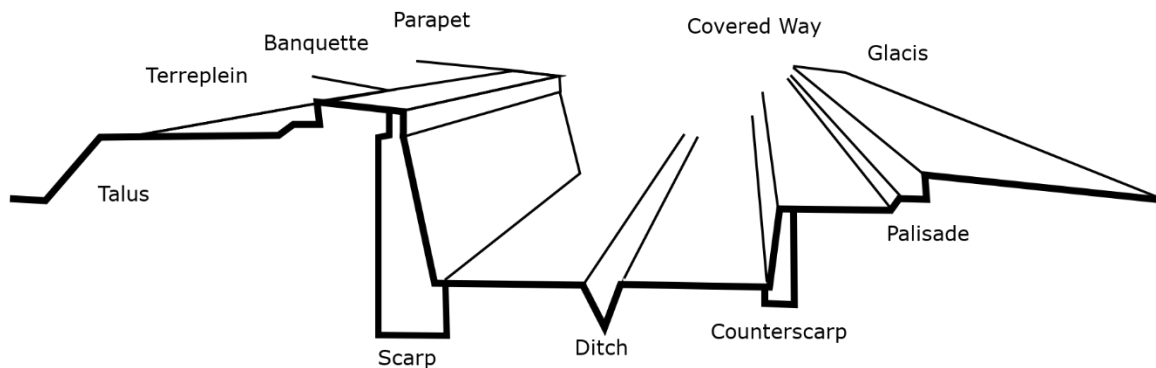
Gunpowder artillery changed the defensive calculus, with the advantage swinging towards the attacker. High walls crumbled rapidly under the repeated concussions of iron cannonballs, and the weight of cannon precluded them from being mounted as counter batteries on high, but thin walls. Attacking armies would march up and, with their batteries, reduce defenses within days or weeks, rather than months or years. Indeed, the master engineer Sébastien Le Prestre de Vauban (1633-1707), claimed that given the perfect defensive conditions, *any* fortification in Europe, no matter how perfectly built, would fall to him in 43 days from arrival and investiture (Vauban 1968 [1740]: 140-141). He further states that “I can say in truth that I have never yet seen the defense of a fortress pushed as far as it can reasonable go...I assume that this sometimes arises from faults in the fortress or from the fortifications being ill-designed, incomplete, or poorly kept-up; but how many times their loss has no other cause than imprudence and negligence,” (Vauban 1968 [1740]: 139).

Two major aspects characterize seventeenth and eighteenth-century fortifications separating these defenses from previous generations: low walls, often sunk into the ground, and geometric regularity. The former character is the product of creating a stable and sturdy enough platform for heavy iron and brass cannon—an iron 24-pounder weighed more than 2,600 pounds—while walls needed to be thick enough to withstand the repeated concussions from counter batteries (Figure 4.1).<sup>3</sup> Besides providing a stable platform, the low profile and thick

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<sup>3</sup> The most often seen calibers in Kane William Horneck’s enumeration of Antigua’s cannon in 1752, 6-, 9- and 12-pounders, each weighed around 1,300 pounds, 2,000 pounds, and 2,600 pounds respectively. The number and shot weight of cannon for Antigua’s defense is difficult to ascertain: old cannons were either sent back to Britain to be recast (e.g. NAAB 324: 27 August 1745; NAAB 324: 7 January 1746/47; NAAB 324:, 12 November 1747; NAAB 322: 2 July 1734), used for ballast and thus moved around the

walls made hitting the walls more difficult and better able to withstand the concussion from repeated strikes. An outer shell, of brick, stone or wood, provided a casing, against which several tons of earth was compacted against, forming embankments sometimes twenty meters thick. While a cannon ball would penetrate the outer casing, the kinetic force from the shot would be absorbed and dissipated by the soil, reducing the effectiveness of batteries.<sup>4</sup> Additional countermeasures included sloped walls up to 15° creating a surface where impacts were glancing, rather than direct, ditches, outworks and manipulating the terrain around the fort to slope upwards, reducing the wall profile further.



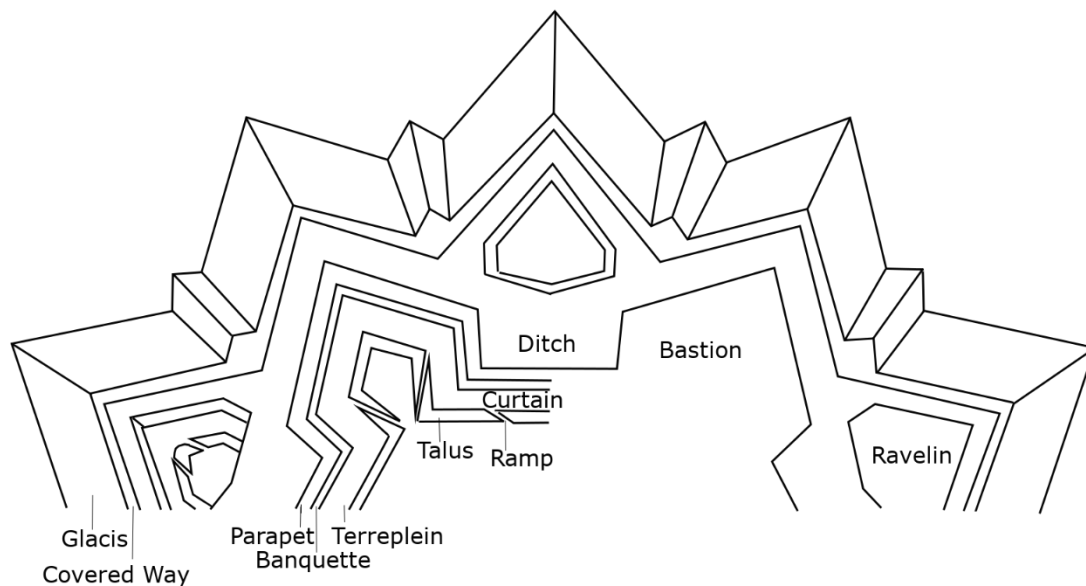
*Figure 4.1: Cutaway of an idealized fort plan. Adapted from Vauban (1968 [1740]) and Duffy (1985). Illustration by Christopher K. Waters.*

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island (Nicholson 1994a), or were more recently sold as scrap, especially during World War II. For a list of extant cannons on Antigua see Nicholson (1994: 35).

<sup>4</sup> Siege cannons were aimed at the same spot along a defensive wall and fired repeatedly, attempting to “batter” a breach in the perimeter wall large enough to send in shock troops to capture a foothold within the fortification. At night, defenders would patch those walls as best as they could under the cover of darkness. During the siege of Havana in 1762, for instance, the British sent up to 600 shots a day into a single bastion of the El Morro Fortress between the 22<sup>nd</sup> of June and the 30<sup>th</sup> of July. The Spanish were able to affect repairs during the night for the first several weeks of the siege, but ultimately lost too many men and cannon in the daily bombardment, and the fortress was seized under arms after the British batteries created a large enough breach (Syrett 1970b).

The second principle which military engineers sought was geometric regularity (Figure 4.2). By applying mathematical principles and recognizing the limitations of gunpowder weaponry, defense in the seventeenth and eighteenth centuries became a matter of depth, overlapping advantages in elevation and cover without exposing the defenders to return fire. Complex geometrical formulae produced beautifully drawn patterns on paper, and carved intricate patterns into the landscape (Duffy 1975; 1985; Brice 1984; Hughes 1974; see Muller 1757; 1768; Vauban 1744; Norwood 1639 for contemporary accounts on defense and siege craft). By changing the angles of walls, attackers were forced to turn and confront a new threat, exposing them to enfilading fire from their sides and rear. The more geometrically regular a fortification could be built the more overlapping fire could be brought to bear on an attacking force. The more approaches a defender could command absolutely, the more secure the fortification.



*Figure 4.2: Idealized plan view of an eighteenth-century artillery fortification. Adapted from Vauban (1968 [1740]) and Duffy (1985). Illustration by Christopher K. Waters.*

With near continuous warfare in early modern Europe and the rise of the modern nation state, protecting territory and projecting sovereignty became a paramount issue. Constructing a fortification was more than just a tactical decision impacting the immediate vicinity, it formed a major part of the long term strategic thinking of military planners. France, relying on Vauban's ideals of defense in depth, developed a triple line of fortification stretching along France's eastern border, forcing any attacking army to stop their advancement and start a siege every few miles, thereby breaking the momentum of an invading army. Conversely, Britain built and rebuilt dozens of coastal fortifications, ever fearing a naval invasion, but largely left the interior of the country free of fortifications after the conclusion of the English Civil War (1642-1651) (Maurice-Jones 1957). Commenting on the proliferation of artillery fortifications across Europe, Vauban suggested that invading Asia was easier than invading the Netherlands because of how many fortifications were present there (as cited in Duffy 1975: 19). While tactically all fortifications were vulnerable, they played a major strategic purpose: force an enemy to stop and lay siege to a fort. This served several purposes: first, armies which are stopped are vulnerable. Not only do they have to contain the city or fortress they are besieging, but they had to fortify their own positions against a relief army. This requires even more soldiers—soldiers which had to be fed—to be present at a siege inside enemy territory. Supply lines had to be maintained, draught animals fed, and enough fuel and other materials must be procured to support tens of thousands of people in close, temporary quarters (Black 1994; 2002; Loh 2000). Disease, bad rations and alcohol all contributed to additional attrition, forcing a commander to consider the cost of setting up a siege. Indeed, John Muller argues that these difficulties should be used against a besieging force stating a, “place but moderately fortified was able to withstand an Army a considerable Time, and oft until they were relieved, or the Badness of the Season obliged

the Besiegers to Retire,” (Muller 1757: xi). With the tacit acknowledgement that no fortification could endlessly withstand a siege, the strategic value in a fortification lay in its ability to delay an enemy, thus protecting more valuable and vulnerable areas within a country. Every fort which was not taken could harass an enemy, and every fort which was taken required expensive repairs and a garrison. A fort only had to be strong enough to force an army to besiege it in order for it to fulfil its defensive mission.

Fortifications in the long eighteenth century were individually designed to withstand attack. Their strategic value, however, lay in being weak enough to merit attacking and tying up an army, but strong enough to withstand that attack for some time. Deterrence lay in the number of fortifications scattered across the landscape, requiring each one to be taken, or risk having the rear exposed to raids and counter attacks. Crucially, successful defensive warfare hinged on the ability for the defending nation to gather a relief army and counter attack, buying crucial time to succeed in that mission.

Theories on how to build, and perhaps more importantly, successfully besiege fortifications became a major topic of public discourse with “treatises poured from the presses in ever-increasing numbers analyzing the attack and defense of fortifications,” (Rothrock 1968: v). Many of these treatises were part of a gentleman’s education and required for the professional corps of engineers and artillery.<sup>5</sup> Indeed, many of Antigua’s leading gentlemen in the seventeenth century served in European campaigns and would have not only had first hand familiarity with sieges, but given some of their stations, actively participated in operations and captures of a city or fortress. For instance, Christopher Codrington III’s participation at the

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<sup>5</sup> For instance, Norwood’s (1639) *Fortification: Or Military Architecture*, is a geometry textbook where the newly discovered logarithms are explained using idea fortification construction as the point of entry for students.

Siege of Namur (1695) earned him a promotion to lieutenant colonel in the First Foot Guards before returning to the Leeward Islands and assuming the Governorship (Parker 2011: 189). Likewise, Daniel Parke served at the Battle of Blenheim (1704) and was an aide-de-camp to the Duke of Marlborough before being assigned the governorship of the Leeward Islands (Zacek 2010: 220-221).<sup>6</sup> During both of their tenures, each man rhetorically leveraged his military experience in an attempt to galvanize local support for more modern and expansive fortifications on Antigua and the other Leeward Islands. Parke, seeing some of the futility of the Codrington construction program, abandoned several permanent fortification projects in favor of a network of field fortifications around St. John's, calling the existing forts piles "of loose stone," (as cited in Webb 2013: 277). Neither man proved successful in convincing the Antiguan elites to abandon their desire to have a single fortified place of last retreat for their families and property, despite the huge costs and indefensible nature of such a fortification. For their efforts, Codrington was removed from power, and Parke assassinated by a cabal of Antiguan elites.

While historic exposure to fortification theory, either as a soldier in the field, or in an educational setting, the experience and diffuse decision-making process affecting fortification construction and maintenance in Antigua reduced much of the fortifications to "a neglected and dilapidated state...with insufficient parapets, old guns, colonial made carriages," (MR 1/1070). Indeed, contrary to the descriptions of glory and valor deriving from imperial violence and colonial expansion, Antigua's fortifications face a different historiography, where there were

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<sup>6</sup> Webb (1979: 484-488; 2013) identifies the governors and lieutenant governors stationed in Antigua, and highlights their military experiences between 1650 and 1715. Most of them held commissions, although it is unclear whether they were in line Regiments or in the militia. Even then, commissions were bought and sold, and did not necessarily convey military experience as much as it telegraphed social standing. Webb (2013) also notes that after the Duke of Marlborough's fall from favor and rapid deterioration in health, along with the ascension of George I, military ambitions shifted, and the stress on the military governments created under Marlborough were no longer favored.



described in context as, “fallen to Decay,” (CO 9/20: 8 March 1749), “neglected and dilapidated,” (MR 1/1070[1832]), and “disappointed,” (NAAB 314: 15 February 1695). This trend became more exacerbated across the eighteenth century as second and third generation planters were born with their properties and privileges secure and saw little need to serve in military positions (Dyde 2000; Zacek 2010), and newcomers who managed to join the landed elites were almost exclusively professionals—lawyers and doctors—who had the ability and social capital to acquire a plantation through marriage and wealth management, and not men with military training (Higman 2005; Sheridan 1957; 1961; Zacek 2010: 116-117). As early as 1708, Daniel Parke, complained about the lack of martial experience amongst the Antiguan population, decrying the desire to play officer or soldier in the militia, which did not grasp the full importance of his military experience (Webb 2013: 177). The result was, that Antigua’s fortifications became a mixture of popular, idealized notions of defense blended with inexperience and expediency.

### **Assessing Defensibility**

By framing Antigua’s fortification plans, construction, and distribution around the questionable professional abilities of the islands elite, I am purposefully juxtaposing an ideal with actual execution. But, the fact that Antigua was not attacked in force, *despite* the perceived academic shortcomings of its elites suggests that perhaps these fortifications were, perhaps inadvertently, placed and constructed on the landscape in a defensively useful fashion. The following section develops a model for assessing whether this statement is true, and whether Antigua’s fortifications provided the island with the defensive capabilities necessary to protect the island from invasion using a Historical GIS approach informed by archaeological survey and archival research.

### *Reevaluating and Contextualizing Defensibility in Gunpowder Warfare*

The strength in investigating the defensibility in the archaeology of warfare, is that while security concerns might be a universally human requirement, its expression is highly malleable, contingent on temporal, environmental, cultural and technical considerations (Arkush 2006). As a literature, it offers conceptually rich ideas on approaches to studying defensive choices, but for the purpose of this research requires methodological retooling in order to apply them to seventeenth and eighteenth-century contexts. This presents several opportunities and challenges. First, Antigua's fortification sites are purely martial: their purpose is to house "warlike stores" and to repulse an attack (e.g. CO 9/1 26 July 1706). This stands in direct contrast to settlement sites, including modern cities, where defensibility is only one part of a complex decision-making process (Bocinsky 2014: 174). While (as we shall see) Antigua's fortifications served also as household sites—sites of social interactions—the decision-making processes affecting where these fortifications were located were equally complex, where the overarching logic driving construction and maintenance was protection. This negates part of the heuristic trap identified by Martindale and Supernant (2009): these sites are purposefully defensive and enhanced (walls, cannon, and so forth) to make them more defensively potent, and not sites which were selected without defense in mind and retroactively made defensible as needed.

The second opportunity is the rich textual sources to compliment the archaeology. Not only are reasons for many of the fortifications stated in official records, but their continued maintenance, garrisoning and issues are repeatedly remarked upon in archival documents. Furthermore, snapshots of Antigua's fortifications through cartographic and pictorial evidence create a critical source of information for evaluating the decisions and analyzing the capabilities of Antigua's defenses. This is complimented by, as discussed above, a large corpus of

contemporary literature on fortification, artillery, training, and professional and amateur descriptions and analyses of defense in general, and Antigua in particular. Evaluation, modification and new ideas and technologies spread rapidly across Europe and the globe in the seventeenth and eighteenth centuries as economies and military campaigns sent millions of people around the world (Black 1994; 2002; Buckley 1998; Loh 2000; Starkey 2003; Schaeffer 1989; Strachan 1983; Syrett 1970; 2008).

The major challenge in assessing defensibility in Antigua's seventeenth and eighteenth-century context is determining which variables are appropriate in evaluating the capabilities of a fortified site. Whereas previous investigations into defensibility examine the natural defensive features for their accessibility using environmentally based variables—elevation, slope, visibility, etc.—these are studies of pre-gunpowder societies. To better understand the motivations behind where Antigua's fortifications were placed, a re-conceptualizing of the appropriate variables is required, specifically to reflect a different form of warfare associated with gunpowder artillery and sailing in the long eighteenth century, and accounting for the technological improvement and ideological changes over the 110-year span of this study. As an island, Antigua can only be attacked from over the ocean.<sup>7</sup> The only way to approach the island, then, is by sea in a sailing vessel. Wooden sailing vessels are limited by a number of factors present at Antigua, such as wind direction, shoals, reefs, offshore islands and water depth, which makes certain stretches of coastline more accessible than others—and by the same measure, more vulnerable to attack. Similarly, for an attacking fleet to land soldiers for an invasion, long stretches of beach unprotected by rocks and shoals are more appropriate for an attack than rocky approaches or steep cliffs. Defensibility, as a concept currently developed, only focuses on

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<sup>7</sup> For internal security see Chapter 5.

terrestrially based attacks, where slope (accessibility) provides a limiting factor. But with changes in how warfare is conducted, while some aspects become more important, they are also subjected to a larger number of limiting environmental factors.

Artillery presents a further set of limitations: while gunpowder artillery in the eighteenth century could fire extremely long distances (see Table 4.1), given the physics of a smoothbore tube and an iron shot, maximum “random” ranges for a 24-pounder was over 2,600 yards (approximately 1.5 miles) (Muller 1768: xi), however, successfully hitting something at these extreme ranges repeatedly was difficult. For instance, effective range, the range at which a 24-pounder was accurate enough to effectively target an enemy vessel, was about 800 yards, and significantly less for smaller caliber weapons. Contemporary military doctrine supported getting as close as possible before engaging with artillery. For instance, in naval warfare captains often closed to within 100 yards before engaging to maximize the effect of a broadside, with the more daring opening fire “within pistol shot” at 30 yards or less (Caruna 1994a: 12; 1994b; Willis 2008: 141). On land, experts in siege warfare recommended that siege batteries attacking a fortification be placed no farther than 100 meters from the enemy walls (Mueller 1768: 163; Vauban 1968 [1740]: 59). Artillery capabilities, then, are an important factor to consider; Antigua’s elites were aware of at least some of the limitations of artillery. Ranges were often discussed while crafting defense policies in the Antiguan government as part of assessing where fortifications were likely going to be effective, and contribute to investigating fortifications (e.g. NAAB 324: 11 July 1744).<sup>8</sup> Firing a cannon then, especially a pre-positioned gun emplaced in a

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<sup>8</sup> In this instance, the Antiguan Assembly concluded that “a Battery upon either of the said Points will be of but very little Service to the Trade of this Island for no Ship of any Burthen can come within Gun Shot of either of them.” Despite this conclusion, both fortifications were built.

fortification, requires more dynamic considerations of range, caliber, and location in order to develop a more nuanced understanding of the possibilities and limitations of defensibility.

*Table 4.1: Cannon ranges by caliber in yards. Historic ranges reported in other measurement (e.g. trioses or paces) were converted into yards for standardization. Data collated from <sup>a</sup>Douglas 1860; <sup>b</sup>Robin 1805; <sup>c</sup>Mueller 1757; and Maurice Jones 1957.<sup>9</sup>*

<b>Caliber</b>	<b>Point Blank Range</b>	<b>Maximum Range 4°</b>	<b>Extreme Range</b>	<b>Effective Range</b>
<b>24 Pounder</b>	297 <sup>a</sup> , 666.67 <sup>c</sup>	1,538 <sup>a</sup>	2,600	800
<b>18 Pounder</b>			2,600	800
<b>16 Pounder</b>	666.67 <sup>c</sup>	1,507 <sup>b</sup>		
<b>12 Pounder</b>	300 <sup>a</sup> , 375 <sup>c</sup>	1,400 <sup>a</sup>	1,800	400
<b>9 Pounder</b>			1,800	300
<b>8 Pounder</b>	250 <sup>c</sup>	1,385 <sup>b</sup>		
<b>6 Pounder</b>			1,500	300
<b>4 Pounder</b>	125 <sup>c</sup>		1,200	100
<b>3 Pounder</b>			1,200	100

Taking these factors into consideration, I evaluate the defensibility of Antigua’s fortifications: specifically, the defensive potential of Antigua’s defense network to protect the island from an outside attack. First, I address case studies of individual fortifications, contrasting the construction and potential of the defensive points with contemporary fortification theory outlined broadly above. Thereafter, I conduct a holistic analysis of Antigua’s defense network, determining the defensive potential and highlighting the weaknesses of the network.

#### *Assessing Antigua’s Fortifications*

External threats to colonial Antigua came from the sea. As an island, there is a clearly delineated boundary between where land and sea operations could take place, with the coastline acting as the interface between the two distinct, but intimately linked environments. Enemies, whether it

<sup>9</sup> Point Blank is a measure of distance where the cannon is elevated to 0° and loaded with one solid iron shot and a charge weighing 2/3<sup>rds</sup> of the weight of the shot.

was the French, Dutch, Spanish or Amerindians, had to arrive in watercraft and land on a beach before they could attack the interior of the island. Reflecting this, the defensive orientation of Antigua's forts, apart from Great George Fort on Monk's Hill, faced out over the water. Here, I assess the defensibility of individual fortified sites around Antigua and demonstrate the heterogenous construction styles, locations, and historical trajectories of these defensive positions between 1670 and 1785.

English Harbour, with the Naval Dockyard, is one of the most heavily defended areas of the island, augmenting the environmental proscriptions on sailing vessels—wind direction, difficult approach, and rapid deceleration necessary to enter into the harbor—with coastal batteries (Figure 4.3). Anchoring the defenses is Fort Berkeley: a 29-gun battery guarding the entrance to the narrow bays of English Harbour. This fort offers a unique example comparing defenses built by military officers to those built by an Antiguan government committee. The fort, first mentioned in a list of Antigua's fortifications in 1704, was built as a small square redoubt on the tip of a long, narrow volcanic peninsula (CO 9/1: 5 September 1704). Little is known about this early fortification, other than it was an enclosed space with a gate, and that after 1726 the Navy stored their gunpowder in the Guard House there whenever ships were careening (NAAB 324: 22 June 1741).<sup>10</sup> The only indication of what this early version looked like comes from a 1745 plan to expand the fortification into its current iteration, the renovation and expansion in the 1740s completely obliterated this original footprint. The expansion in the 1740s coincided with the Antiguan government pushing for the further development of English

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<sup>10</sup> Curiously, the Navy kept their gunpowder in the guard house in the fort, refusing to lay out the capital to build their own magazine. The practical effect of this obstinance was displacing the matrosses hired to garrison the fort. This tension neatly encapsulates the political relationship between Antigua and Britain, where capital improvements were dictated by the local authorities, and not from imperial sources (NAAB 324: 22 June 1741).

Harbour for the Royal Navy. The expansion sought to include a long line of cannon along the entire length of the peninsula. Given the limitations of square rigged sailing vessels, ships entering the harbor had to sail directly at Fort Berkeley, dropping sails and slowing down before pulling over hard and drifting in. Friendly ships would then warp<sup>11</sup> in, with ships crews and enslaved laborers pulling the warships into the harbor and into position (Ward 2011; Weaver 2002). Attacking vessels on the other hand they faced a battery of 29 cannons in their approach.<sup>12</sup> As a defensive structure, Fort Berkeley provided a major defensive work, where it

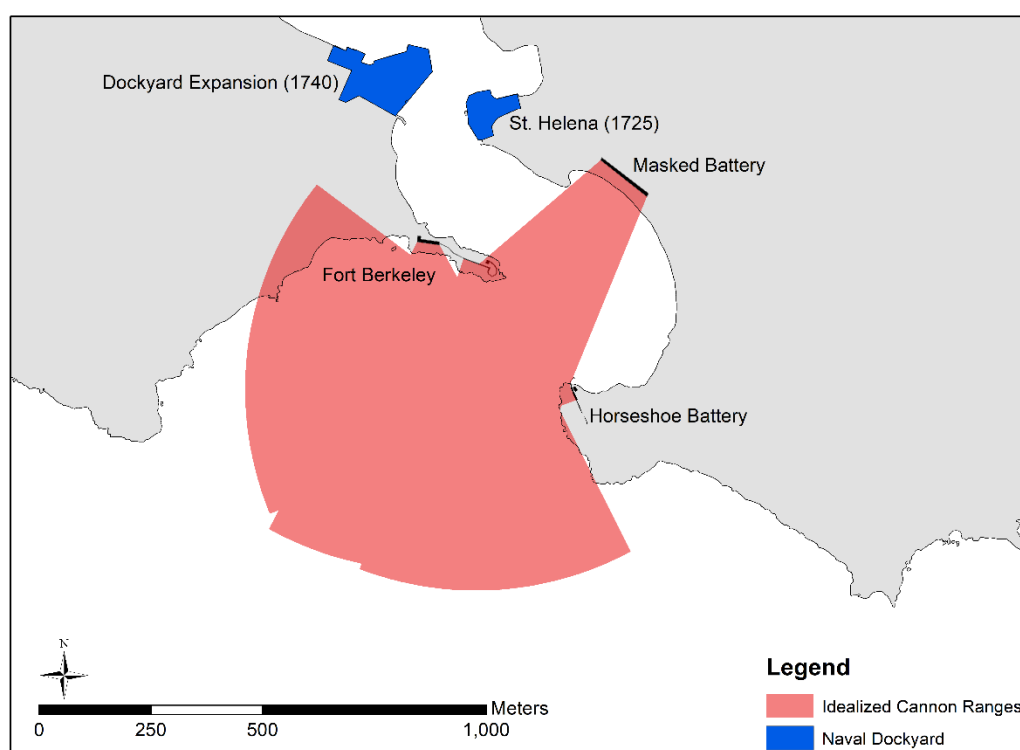
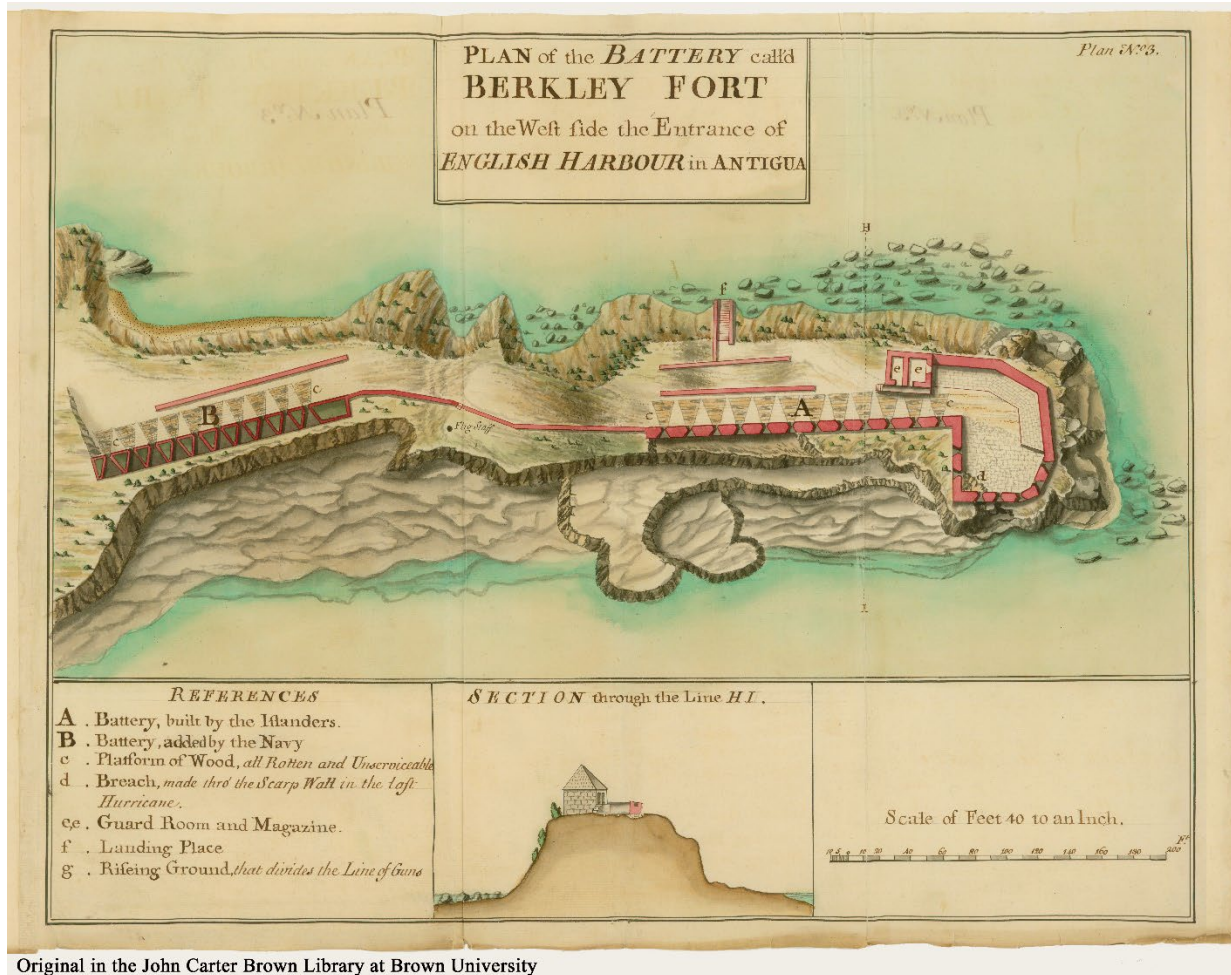


Figure 4.3: Antigua Naval Dockyard defenses between 1740 and 1780 showing an idealized 800-yard maximum effective range. Illustration by Christopher K. Waters.

<sup>11</sup> With contrary winds, vessels could not maneuver about the harbor under their own power unless conditions were exactly right. Instead, crews would throw lines to the shoreline where large iron anchors were embedded into the shoreline and teams of men, usually enslaved Africans, physically pulled (warped) vessels into the harbor, moving from anchor to anchor until the vessel was in place.

<sup>12</sup> Vessels sailing toward English Harbour would point the bow of the vessel directly at Fort Berkeley, exposing them to raking fire. Raking is when a shot traverses the length of a vessel, rather than being hit along the sides (a broadside). This kind of fire is considered particularly devastating since a shot would travel unimpeded by structural elements, potentially hitting more men and knocking over more cannon than a single shot hitting the side of a vessel. Structurally, the bow and stern are also the weakest, adding further to the devastating impact of raking fire (Willis 2008).

could fire on an approaching, slowing enemy, while being sheltered from fire until the ship turned hard into the harbor.<sup>13</sup>



Original in the John Carter Brown Library at Brown University

Figure 4.4: Fort Berkeley by Kane William Horneck (1752). Courtesy of the John Carter Brown Library.

Fort Berkeley a case study in how military training impacts defensive architecture. The fort underwent an expansion in 1745, where half of the battery was constructed by the Antiguan government, and the second half was built by Commodore Charles Knowles of the Royal Navy

<sup>13</sup> Once turned in, ships would have to contend with a boom and several more batteries, possibly thousands of sailors and several ships anchored in the harbor.



(NAAB 324: 1 April 1745). Archaeologically, the difference between the two batteries is striking despite their contemporaneity (Figure 4.4). The Antiguan built line has a wall thickness of only 195 centimeters. Irregular embrasures punctuate the wall, theoretically allowing the cannon to traverse a greater angle of fire (from 170° to 240°, allowing for 70° of fire), but sacrificing both physical protection by making the already thin walls thinner, and by ignoring the regularity principle which undergirds fortification theory. Walls should be constructed in such a way that irregular embrasures or bastions are not necessary to create overlapping fields of fire. The masonry is irregular, too, set with small field stones, mortared into place. Where the wall has collapsed, it is possible to see into the nucleus of the construction, showing that this is a solid fill, homogenous construction, using the same field stones stacked and held in place with mortar throughout. In contrast, the Navy commissioned walls are 450 centimeters thick, built with properly cut facing stones and packed with a dense fill of small, irregularly shaped stones held with mortar. Here the embrasures are tapered uniformly, speaking to the military aesthetic of a warship's broadside, reflecting the knowledge of a naval commander. The embrasures are also narrower, offering only an average of 60° of traversing fire (from 180° to 220°), but lending considerably more protection for the men crewing the cannon. Even the platforms on which the cannon rested varied: with the colonial platforms relying on wood, while the Navy lay down flagstones, demonstrating the difference in tactical thinking afforded by a military trained officer and a committee of Antiguan planters.

The most surprising aspect of the unevenness of how Fort Berkeley was built, however, was the fallout from its construction. The Admiralty formally censured Commodore Knowles, for building a battery on the peninsula, insisting that it was the purview of the Antiguan government, and not the Navy, to provide the necessary defenses for English Harbour (NAAB

324: 11 July 1776; Gywn 2004: 62-63). In essence, they argued that Knowles overstepped his authority by commanding the additional construction. Knowles replied that the Antiguan government refused to expand the fortification any further, so he had to take it upon himself to finish the works to best protect the nascent dockyard from an attack (Nicholson 1992: 17-18).<sup>14</sup> He even had to beg the Antiguan government to build the 45 centimeter thick wall connecting the two parts of the battery to better protect the integrity of the fortification; a task which the local government was reticent to take on because of the expense (NAAB 324: 3 January 1745/46). Knowles was removed from his post, although eventually cleared of all charges related to this incident. This incident speaks to the convoluted colonial relationship between Antigua and Britain, where the island was in total control over its defenses, and the imperial institutions demanded the continuance of that relationship. The portion of Fort Berkeley built by the navy was handed over to the Antiguan government, manned with local gunners and matrosses, and continued to provide the dockyard with defense until the Antiguan government gave up the site in 1783 (CO 9/41: 24 September 1783).

Fort Berkeley provides a symptomatic view of the lack of expertise exhibited by the Antiguan government in constructing their own defenses. In a long letter detailing the state of Antigua to the Board of Trade and Plantation in 1734, Governor William Mathew disparaged Fort Berkeley, commenting:

...And for the defence of it, have laid out a thousand pounds or more of this money in building, in a very wrong place, a fort as sadly contriv'd, and with six eighteen and three twelve pounders well mounted in it, but that it might hold gunns enough, they have made merlons between the embrasures farr from cannon proof, as being not quite six foot in length nor as thick, nor is there seven foot from touch hole to touch hole of each gunn: *'tis pitty they chuse allways to do these things (as they give the money) under their own*

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<sup>14</sup> The Horneck (1752) rendering crystalizes this, with the original line described as “Battery, built by the Islanders,” while the extension is described as “Battery, added by the Navy.”

*direction, and of men that never saw a fort, rather than trouble a Governour that has.*  
(emphasis added, CSPWI v.41, pp. 199-242)<sup>15</sup>

Mathew's comments particularly highlight the degree to which the control over the fortifications rested with the local legislators, and their combined inexperience in military engineering, when crafting and planning Antigua's defense policies. Those men appointed to an oversight committee for a particular fortification had wide license in making local decisions, backed with the authority to directly charge the treasury for their decisions. This has two major ramifications: first, that the quality of fortification relied on the consensus of men who, in Governor Mathew's estimation, had no military experience, and thus no business, making decisions at these fortifications. Local quality, then, relied on abstract concepts of fortification, rather than rooted in any kind of military theory. Second, each fortification is unique in Antigua, with no unifying principles or consideration of other, nearby fortifications during the construction phase.<sup>16</sup> This manifestation demonstrates the necessity of examining the extant fortifications archaeologically, and critically reading historical sources, as the estimations by Mathew, often cited (e.g. see Gaspar 1985; Nicholson 1994) reflect contempt by the "imperial" structure for local colonial policy, but it is local colonial policy which dictated action. This made defending the island a

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<sup>15</sup> William Mathew served as Governor in an acting capacity from 1714-1715, and confirmed governor of the Leeward Islands from 1729-1752. Prior to his tenure, he served in the Coldstream Guards in 1708 and did have a military background. He owned a plantation on St. Kitts and seems to have spent most of his time on that island, rather than Antigua (Webb 1979: 487).

<sup>16</sup> For instance, Fort Hamilton which is some 1,325 meters north of Fort James along the coastline and provided additional protection along the northern coastline above St. John's, and protected across the St. John's Road, was purposefully reduced to a minor outpost in 1740 on Governor Mathew's request, removing all of the heavier cannon so that they could not be used by an enemy to "annoy" Fort James. Indeed, he previously commented that Fort Hamilton was "poorly situated," and laments that "If Fort Hamilton had been better placed, as well as laid out as the worst fort in Europe," it might have been effective (CSPWI v.41, pp. 199-242). Implicit in this statement is the assessment that Fort Hamilton was not strong enough to resist an attack and that it, in effect, posed a greater danger to Antigua than afforded protection to the shipping (NAAB 324: 10 April 1740).

piecemeal operation reliant on local elites exerting their own agendas and influences over issues which they did not have the necessary backgrounds to effectively bring to fruition.

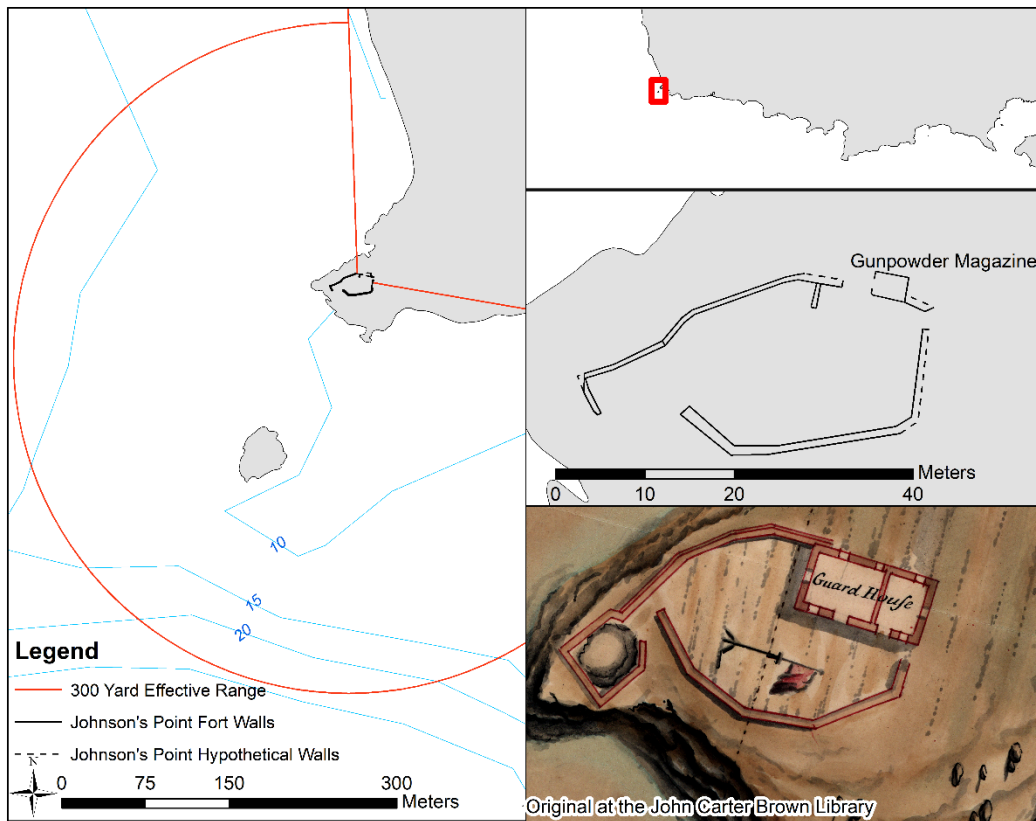
Proper military architecture was the domain of the Ordnance Department in Britain.

Faced with cannon shortages throughout the eighteenth century, the Antiguan government often applied to the Crown and the Board of Ordnance for cannon. In one particular petition, the Antigua Assembly determined that:

Our Petition to the King this Day Reported to both Houses cannot be forwarded till proper Instructions & Materials are Provided to be sent with it to the Person who is to solicit for us in England and as the State of our Forts & Batterys ought to be Represented with the Size of the Cannon & their Condition, We think it would be proper that Mr. Baker should be Employed to make a Ground Plat of each Fort & Battery Expressing its Situation & use the Thickness of the Walls, & Number of Embazures in each Face or Flank & the Size of the Cannon in each & whether Good or Bad by which it will be one View appear What & How many Cannon are Wanting (NAAB 324: 24 April 1745).

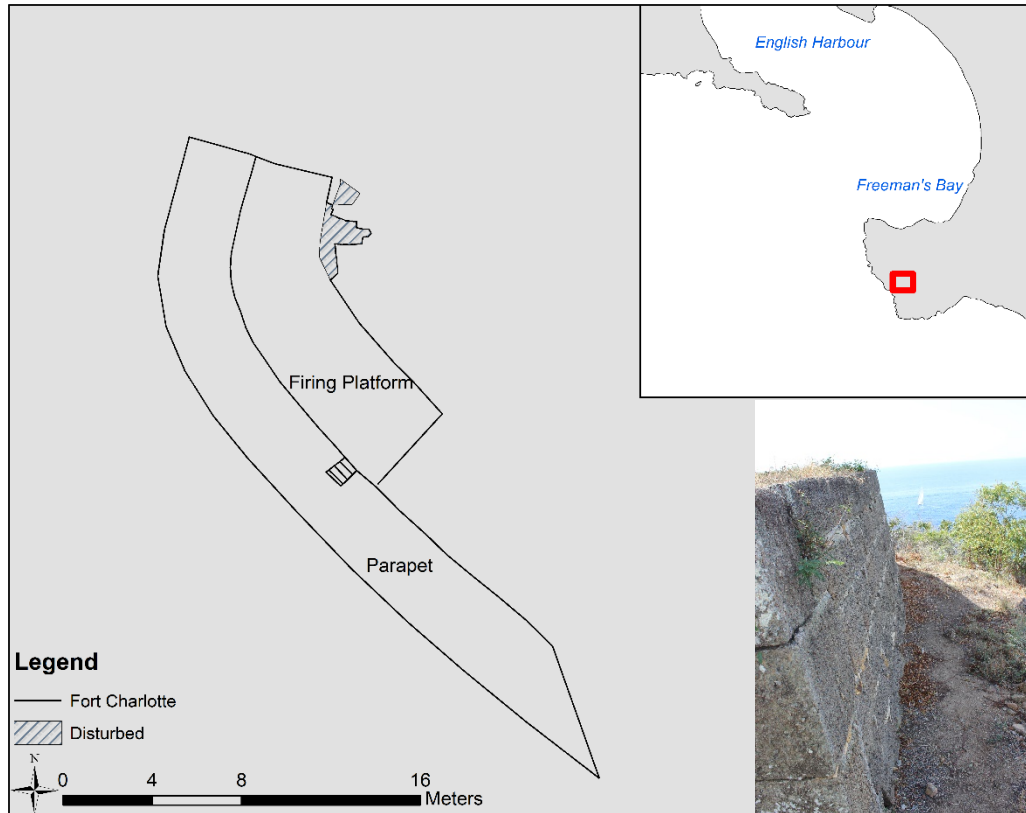
Specifically of note here is the commentary on the thickness of the walls. Wall thickness affords protection for the cannon and crews, often with walls measuring several meters thick with heaped earthen embankments on the exterior providing further protection. This concern for the thickness of walls, however, did not translate into properly constructed fortifications. Johnson's Point Fort has wall thicknesses ranging from 91 centimeters to 130 centimeters (Figure 4.5). Fort Isaac's parapet measures 110 centimeters. In every one of Antigua's government-built forts, the bulk of the walls come from cut facing stones, with only narrow stone and mortar nucleuses, lending little structural protection against cannon shot. Aside from the thin walls, Fort Isaac also suffered a number of additional construction setbacks reflecting the lack of military engineering knowledge. For instance, during construction, a report in the Antigua Assembly minutes concluded that the fort "is useless from the pavements not being high Enough...We desire your Excellency would give orders to have the Mistakes of that Battery rectified, and the Guns made fit for Service" (NAAB 324: 26 August 1740). Contrast that to

Fort Charlotte at English Harbour, built by military engineers sometime in the early 1790s (Figure 4.6). This horseshoe battery boasts a parapet thickness of 336 centimeters, faced with locally quarried cut stone and filled with layers of rubble and mortar, offering significantly thicker protection for the cannon and gunners stationed there.



*Figure 4.5: Johnson's Point Fort showing the effective cannon range for a 9-pounder at 300 yards: the armament at the fortification in 1752. Insets depict the archaeological remains of the fortification compared with the Horneck (1752) watercolor plat. Note the very thin walls. Discrepancies in the 1752 image and the archaeological survey are due to a reconstruction effort undertaken in December 1777 (NAAB 33: December 1777).<sup>17</sup> Horneck Map courtesy of the John Carter Brown Library. Illustrations by Christopher K. Waters.*

<sup>17</sup> Damage to the page has erased the exact date of the meeting.



*Figure 4.6: Fort Charlotte, built by the Royal Navy with support from the Royal Engineers in the 1790s to guard the southern tip of English Harbour and replacing the Antigua government-built Horseshoe Battery. Note the thickness of the walls as compared to other Antigua built fortifications, including the care with which the masonry was laid. Illustration and photography by Christopher K. Waters.*

Horneck (1752) depicts Antigua's fortifications as having walls between five and seven feet thick (152-213 cm). While the exact thickness represented in these drawings is not particularly useful and tend to be represented as thicker than what is found archaeologically, these plans suggest that Horneck should have at least been aware of the defensive deficiencies of these sites. Embrasures to protect the cannon and crew were often added as an afterthought (e.g. NAAB 324: 20 May 1745), apparently even using inferior quality stone and construction techniques (Nicholson 1992: 18). All fortifications, excepting Fort Great George, are on the coastline, and most are within 20 meters elevation of the high-water mark and, without high

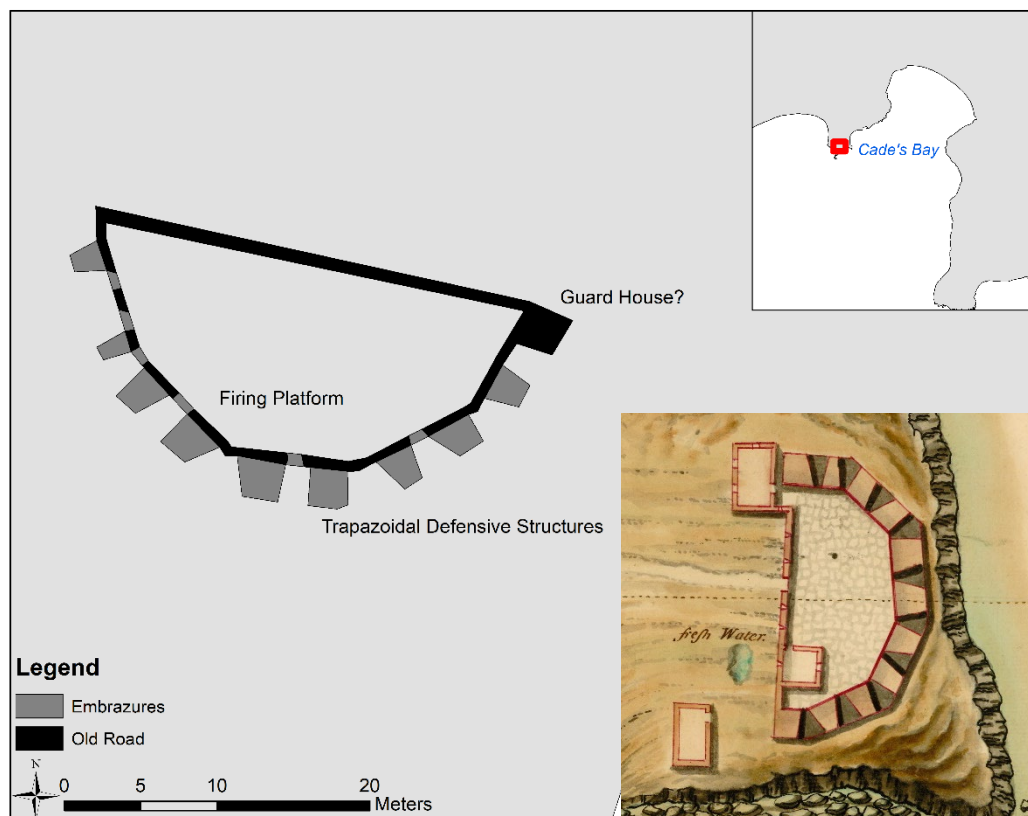
parapets and merlons, crews exposed themselves to small arms fire from sailors in the rigging, as well as decreased protection from cannon fire (Miller 1757: 210). Captain Thomas F. Lancey, Royal Engineer, commented on the insufficient parapets of Antigua's forts, stating "the other points termed Forts being merely Sea Batteries," in a generally disdainful assessment of Antigua's defenses, contrasting them with praise for the Crown military properties (MR 1/1070).

A curious exception is the Road Fort, protecting Carlisle Bay. First mentioned in 1673, this fort protected one of the principle trading harbors, the Road Fort constantly reappears in the historical records well into the nineteenth-century (Nicholson 1992: 29). Horneck's rendering suggests that the fort was self-contained with a complete circuit wall and a thick parapet with deep embrasures to protect the cannon and crew. While the actual parapet is significantly narrower (62.5 centimeters) than Horneck's rendering (10 feet, 304 cm), the fort does have a curious addition: large trapezoidal mortared brick and stone blocks are set in front of the merlons. These structures are not part of the original construction and do not bind to the curtain wall.<sup>18</sup> Curiously, they do not extend to cover the embrasures, creating a cog effect in the site plan for the fortification. These features are interpreted as strengthening the fortification from a waterborne attack. Set at almost 13 meters above sea level, ship-borne cannon would have to angle their fire up at the fortification, these trapezoids added an additional 200 centimeters of protection while allowing the cannon in the fortification to depress enough to return fire. While this is not a standard feature discussed in European fortification theory, Vauban (1968 [1741]) and Miller (1757: 144-145) both suggest that building irregular fortifications requires careful

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<sup>18</sup> Road Fort, along with many others, was decommissioned after the American Revolution, only to be rebuilt as war broke out again in the 1790s (see Chapter 7). It is likely that these trapezoidal extensions were added then, but nevertheless, represents a local architectural adaptation, and not an addition by a military engineer (see NAAB 332: 1 August 1793). Permission to excavate on the site was not given, thus information about the depth and possible dating from these features has not been verified archaeologically.

consideration and innovation to best protect their objective. The Road Fort does display this kind of innovation, suggesting that at some point, a person with either military experience, or at least awareness of the weaknesses of this kind of fortification, was involved in this creative solution. The fact that this was not extended to other sites, however, is representative of the diffuse organization by committee on which the Antiguan government ran the defensive network.



*Figure 4.7: Old Road Fort with trapezoidal defensive features between the embrasures. Note the difference between the archaeological remains and the Horneck (1752) image which shows significantly thicker walls but no embrasures to shoot through. Courtesy of the John Carter Brown Library. Illustration by Christopher K. Waters.*

Defensibility starts at the individual fortification. In Antigua's case, the haphazard, rapid construction of fortifications by men with little or no military experience, created a series of



defensive points which, by professional engineering standards, were considered architecturally inadequate. However, this deficiency is perhaps overstated, as Antigua did not suffer from an invasion, and that the development of these defenses proved enough to deter enemies from approaching the island. Vauban famously concludes his treatise on conducting a siege that, “there is no fortress which [my] method is not applicable,” (1968: 93), with fortifications inevitably falling to a concerted, well thought out, well executed attack.

### *Assessing Defensibility at an Island-wide Scale*

To best assess the assumption that Antigua “was one of the most heavily fortified places on earth,” (Nicholson 1994: foreword), we can examine the physical and historical limitations of seventeenth and eighteenth-century island warfare, and build a spatial model which affords us the opportunity to assess the motivations and decisions made by the Antiguan legislature manifested in the physical remains of the fortifications, and described in the records of their deliberations. This requires taking an island wide approach through crafting a model which presents possibilities, within established parameters, to assess which parts of Antigua’s coastline—the interface between a seaborne attacker and the terrestrial defender—were particularly vulnerable, and then contrasting those results with historical and archaeological data. By establishing a spatial model designed to assess threat broadly, we can then interrogate decisions and interpret how the island elites conceived of, constructed, and manipulated the martial landscape to suit their agendas and needs.

Whereas other spatial models used in archaeologies of war and military sites assess land use, least-cost-paths, and/or viewsheds to interrogate possibilities (e.g. Martindale and Supernant 2009; McCool 2017; McGuire and Villalpondo 2015), the nature of the physical geography of a small island and the interface between water and land requires establishing new parameters

reflecting the environmental and spatial restrictions and competing technologies. This model uses three parameters derived from environmental, historical and social variables. Bathymetry measures how close inshore a vessel can physically get without running aground; prevailing easterly winds measure maneuverability of sailing vessels; and, historic effective and maximum cannon ranges dictate both the level of threat to the coastline and establish parameters for appropriate tactical responses in arming Antigua's fortifications. These parameters are combined to determine how threatened Antigua's coastline was—using a scale, Not Vulnerable, Low, Moderate, and High—to distinguish different stretches of the coastline (Figure 4.8). Coastal areas near deep water with wind conditions which allowed vessels to get within 800 yards of the shoreline, are considered more vulnerable than areas where shallow water and contrary winds limited the approach of larger vessels, thereby reducing the direct threat to that coastline. The results from this analysis are then compared to the trajectory of Antigua's fortifications in the

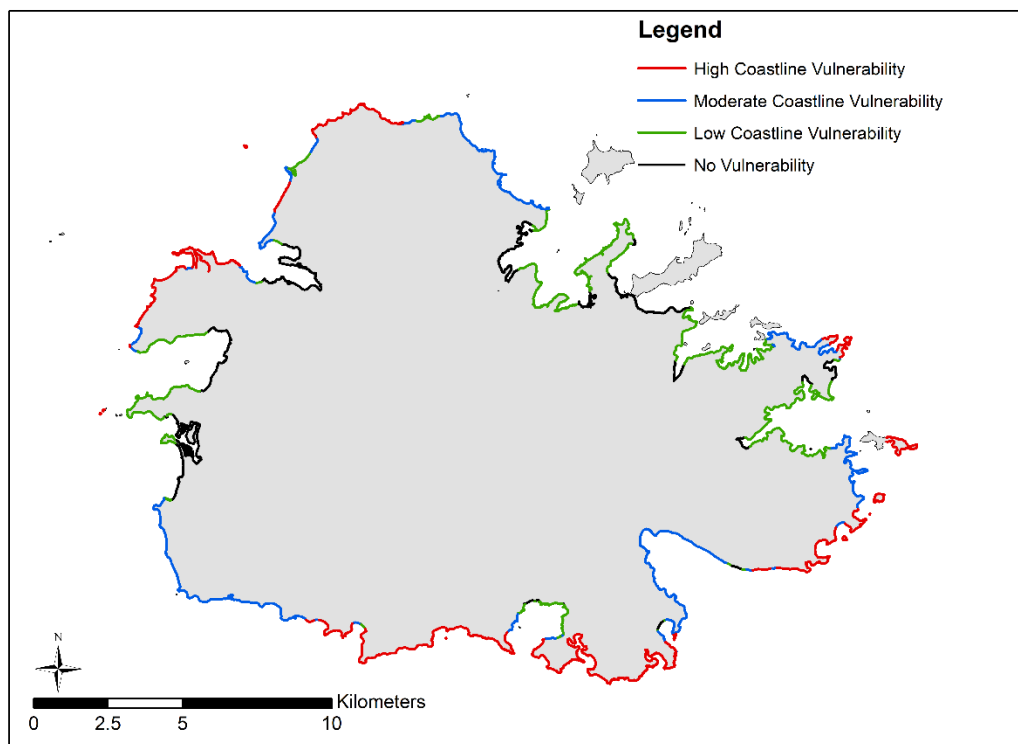


Figure 4.8: Total calculated coastline vulnerability for Antigua. Illustration by Christopher K. Waters.

seventeenth and eighteenth century, anchored around the 1729 Fort Return (CO 152/18/T99), and a combination of the Baker Map (1748), and Horneck Collection (1752): dates for which the data is most complete.

The results reflect the varied and geographically complex Antiguan coastline. Large stretches of coastline were not vulnerable at all (21.7%) due to a combination of shallow water and contrary winds keeping vessels far away from the coastline. This is particularly evident at the end of Five Islands Harbour and Mosquito Cove on the western side of the island, as well as inside the narrow bays and inlets of Parham Harbour, Mercer’s Creek, and Nonsuch Bay on the northern and north-eastern coast of the island. Just over half of the total coastline (50.2%), can be considered low to no vulnerability, reflecting the fact that only small transoceanic vessels, specifically those with fore-and-aft rigging, could approach close enough to these areas of Antigua’s coastline to threaten it with bombardment, or provide cover for troop landings. Fully

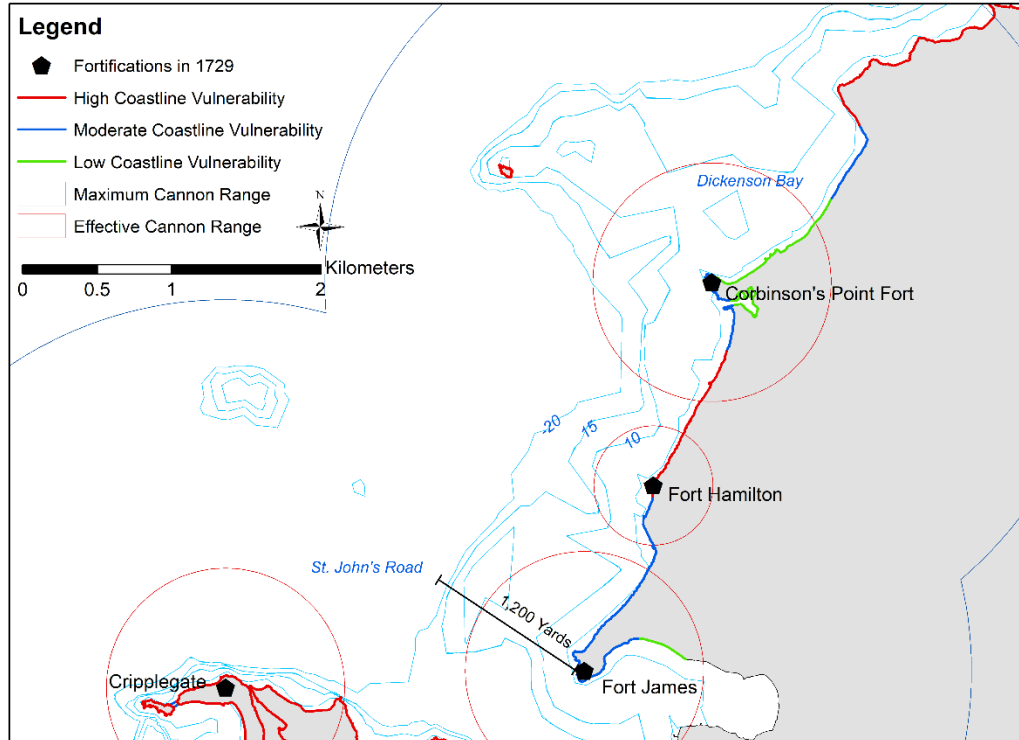
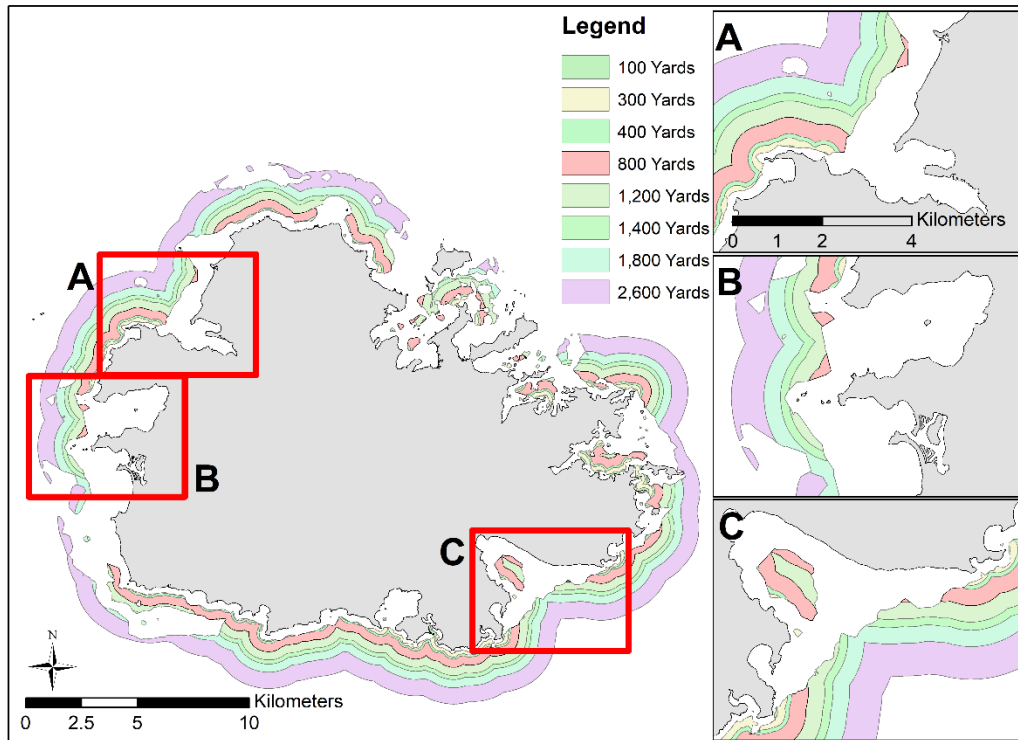


Figure 4.9: Coastline vulnerability around St. John’s Road with the fortifications and cannon ranges as indicated on the 1729 Return (CO 152/18/T99). Illustration by Christopher K. Waters.

30.1% of the total coastline is highly vulnerable. This includes long stretches of the south and southeast coastline where favorable wind conditions and deep water close inshore provide the space for the largest warships to maneuver. Other areas of high vulnerability according to the model include most of the coastline from Hodges Bay on the northernmost tip of the island, progressing intermittently south and west, across St. John's Harbour and down to Five Island's Bay. In particular, Runaway Beach and the stretch of coastline south of St. John's Harbour are considered highly vulnerable: bays which are adjacent to St. John's town (Figure 4.9).

Artillery defense is a function of range: targets can only be hit if they are within a certain distance from the cannon. And range is a function of caliber: the larger the caliber, the farther an iron shot can fly. To establish the impact of these ranges on the waters around Antigua, the island's coastline was used to establish a hypothetical buffer around the island indicating the boundaries of effective and maximum cannon ranges. These results were layered onto the vulnerable coastline analysis above, to assess what minimum caliber weapons were required to maximize the possibility for a best defense. The results show that, except for a few isolated areas, small caliber weapons—6-pounders or smaller—did not have an effective enough range to seriously threaten incoming vessels. Even medium caliber weapons, 9- and 12-pounds (300 and 400 yards effective range respectively), were only somewhat useful in protecting against the smallest class of sailing vessels based on range (32.5% and 40.8% respectively), but could only be used in only a few places against vessels outside of the 20-foot depth mark (9.6% and 14.8%, respectively). The largest caliber weapons, 18- and 24-pounders, with effective ranges of 800 yards, only reached 30.5% of the area where the largest vessels could traverse, although this number improved to 58.2% of the area within the 10-foot bathymetric mark (Figure 4.10).



*Figure 4.10: Total calculated effective cannon ranges around Antigua factoring in a bathymetric depth of 20 feet. Insets include closeup results of A) St. John's, B) Five Islands, and C) Willoughby Bay. Illustration by Christopher K. Waters.*

Using historical information gleaned from primary source materials, I believe that these parameters are well within historic tolerances and the knowledge was somewhat accessible to individuals seeking it out, specifically military engineers, artilleryists, sailors and navigators. The results also demonstrate the possibilities afforded by local conditions and technological limitations; it does not conclusively or exhaustively encompass all possible variables, and therefore should be considered a generalization of possibility, and used to assess the reactions and motivations behind how and where Antigua's fortifications were constructed. The validity of this model is underscored by historic mentions by the Antiguan government of each of the identified stretches of coastline considered most vulnerable as areas of particular concern. This includes the coastline stretching north of Fort James to Wetherill's Point (NAAB 324: 10 April 1740), the east coast of the island stretching from Half Moon Bay to Nonsuch Bay (CO 9/7: 3

August 1740; NAAB 322: 21 February 1733/34; NAAB 324: 24 April 145), Willoughby Bay (CO 9/2: 19 August 1712), and the area around the Dockyard including Indian Creek and Mamora Bay (CO 9/2: 19 August 1712; NAAB 324: 13 December 1745; CO 9/41: 22 August 1782). This lends the model additional credence and allows for a more nuanced interpretation of the human behavior informing the decisions taken to defend these positions in the seventeenth and eighteenth centuries (Table 4.2).

*Table 4.2: Summary of Coastline Vulnerability results.*

<b>Coastline Stretch</b>	<b>Model Threat Level</b>
Old Road to York Island	High
Nonsuch Bay to Parham Harbour	Low
Barnacle Point to Hodges Bay	Moderate
Hodges Bay to Wetherill's Point	High
Wetherill's Point to Runaway Beach	Low
Runaway Beach	High
Fort Beach	Moderate
Loblolly to Five Islands Harbour	High
Five Islands Harbour	Low
Mosquito Bay to Fry's Beach	None
Fry's Beach to Cades	Moderate

## **The Defensive Landscape**

Understanding which parts of the coastline were the most vulnerable to an attack in the seventeenth or eighteenth centuries allows us to examine the spatial distribution and defensive priorities of the Antiguan government when it came to defense. For instance, should the fortifications be placed in all of the most vulnerable locations, then we can argue that the Antiguan government did carefully think through the tactical and strategic implications of their actions. On the other hand, if fortifications appear on the landscape in places considered less or not vulnerable, we have to reexamine those decisions made by the Antiguan elites, and reassess

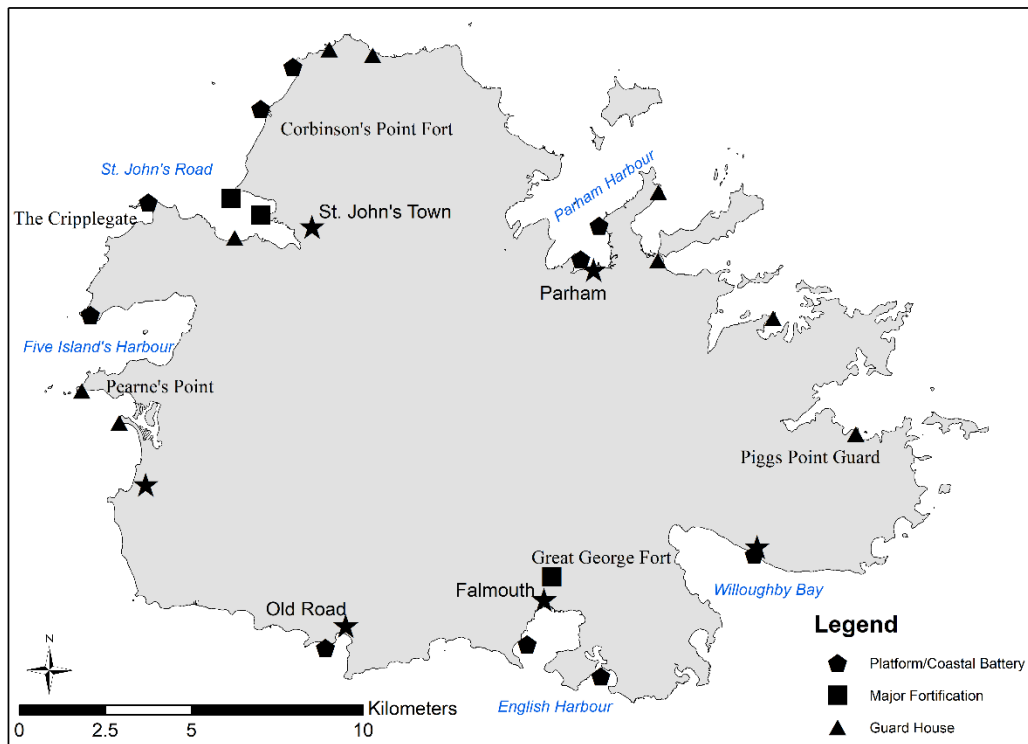


Figure 4.11: State of Antigua's fortifications in 1704. Illustration by Christopher K. Waters.

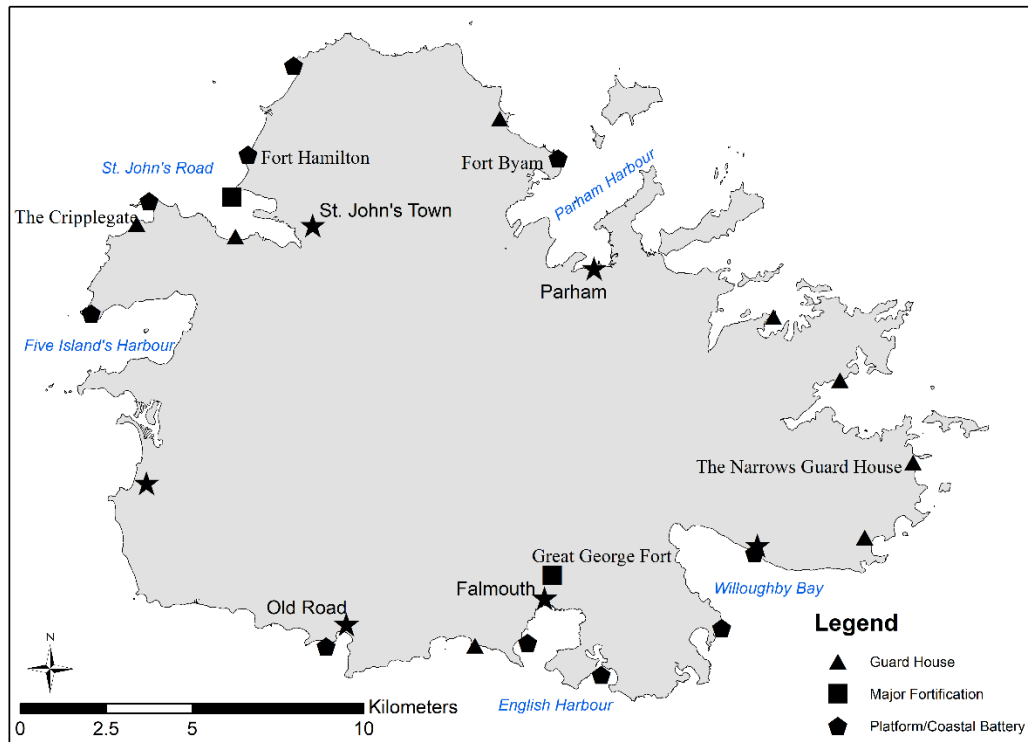


Figure 4.12: State of Antigua's fortifications in 1729. Illustration by Christopher K. Waters.

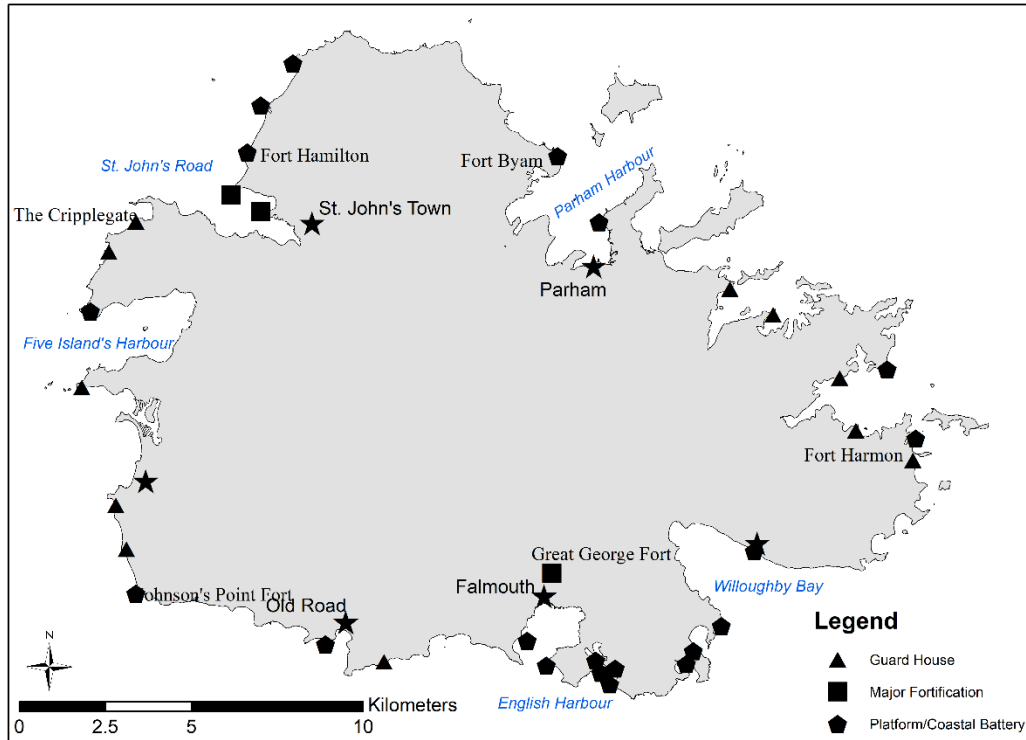


Figure 4.13: State of Antigua's fortifications around 1750. Illustration by Christopher K. Waters.

fortification distribution, size, and cannons to document the shifting priorities and changing martial landscape of Antigua between 1670 and 1785 (Figures 4.11, 4.12, 4.13, and 4.14).

As discussed in Chapter 2, Antigua's fortification network grew in fits and starts. Letter dated the 8<sup>th</sup> of March 1749, the both houses of the Antiguan legislature wrote to William Mathew, Governor of the Leeward Islands, laying out its case against raising further funds for maintaining the regiment stationed on the island. The reasons they gave were the already massive defense expenditures spent by the Antiguan government to protect the island, and the island could no longer afford to keep spending money. They helpfully enumerated the expenses accrued to that point: seven thousand pounds for building the barracks at Rat Island, twelve thousand pounds worth of labor and land towards enlarging the facilities at English Harbour, and a further thirteen thousand pounds, expended "in a few weeks," in constructing "Seven new Fortifications where the Coast lay most open to the Descent of the Enemy to Build Guard Houses



round the whole Country and to support the Gunners and Matrosses upon Fifteen Fortifications,” (CO 9/20: 8 March 1749).<sup>19</sup> Implicit in this statement is the implied weakness of Antigua’s existing defensive policies, impacting the defensibility of the island as a whole: that the system was neither comprehensive, nor did it stem from any kind of long term planning and execution; rather, the fortifications are a product of expediency and personal agendas favoring the wealthy plantation owners reliant on trade and shipping. The result are wide swaths of the island with little or no protection, contrasted to smaller areas with proportionately higher defensive capabilities. The core of the forts developed in the 1740s remained part of the defensive network into the second half of the eighteenth century.

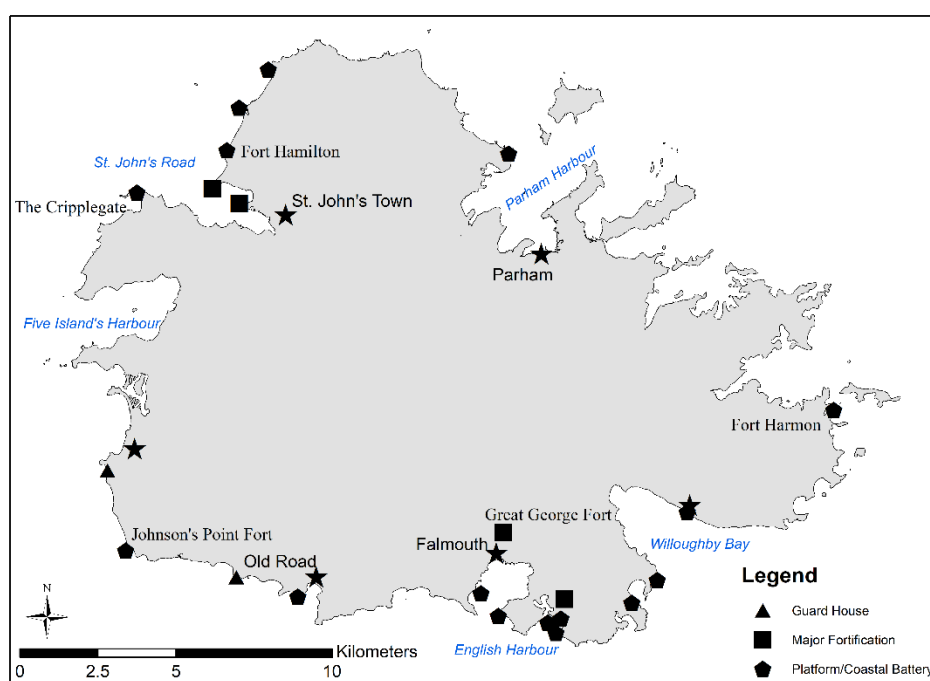


Figure 4.14: State of Antigua’s fortifications in 1781. Illustration by Christopher K. Waters.

<sup>19</sup> Only the expenses for the barracks are explicitly calculated in Pounds Sterling. Assuming that the other figures are in Antigua currency, the total expenditure expressed here, accrued between 1741 and 1748, based on McCusker’s (1978: 261) 1749 average exchange of 171.67 Antigua Currency per 100 Pounds Sterling, comes to £37,016.9 Antigua Currency. If the other rates are also in Pounds Sterling, the total rockets to £42,917.5 Antigua Currency. For perspective, the total revenue in 1749 came to £13,301 15s 3 ½d Antigua Currency.

Part of the uneven distribution of Antigua's fortifications was due to the geographic contingencies around the island. Governor William Mathew, writing in 1734, described Antigua's defensive position in great detail, noting the geographic strengths and weaknesses of the island (CSPWI .41, pp. 199-142). The north coast, he postulated, was immune from attack since the coastline was covered by shoals allowing only small vessels access. The only direct threat between Reyerson's Point, the northernmost point on the island (now Boon Point or Blue Waters) and Indian Town Point at Devil's Bridge in the northeast, was the chance that "Good pilots indeed may attempt bringing in a sloop to steal off negroes by night and away, and that in the late warrs has been done." (CSPWI v.41, pp. 199-242).<sup>20</sup> To counter these lesser weaknesses, Mathew discussed the repositioning of militia units whenever an alarm is sounded to minimize damage by privateers.<sup>21</sup> Indeed, he went on to describe Fort Byam at the mouth of Parham Harbour as more than adequate at keeping privateers from cutting out merchant vessels anchored there, and that he had never "heard was attempted."

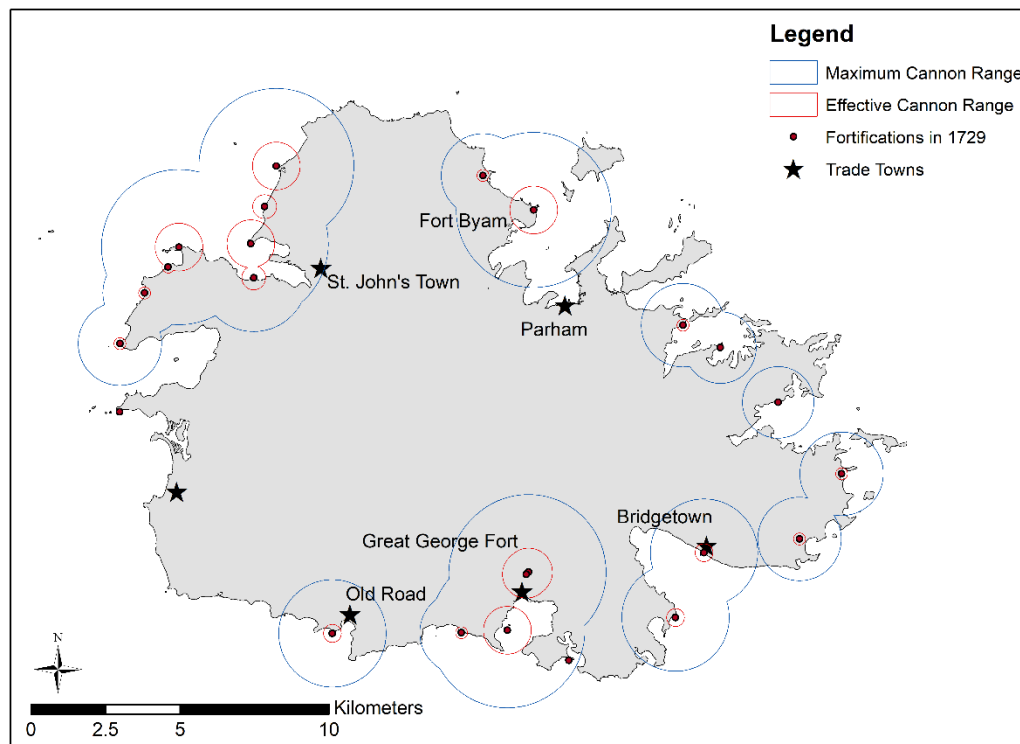
Overall, the pattern of fortification distribution shifts from a largely holistic, somewhat evenly spaced fortification pattern at the end of the seventeenth century, to one concentrated in around St. John's and English Harbour by the American Revolution. Rather than protecting the entire island, the politics of where to place fortifications became more haphazard. This results in

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<sup>20</sup> There is a recorded instance of a French privateer taking two enslaved men, Tom and Carver, from Long Island in 1714 (NAAB 319: 5 March 1714). Cola, an enslaved man, raised an alarm near Parham "betraying into our hands the Enemy and several of the Subjects of the French King who landed here with a design to take off a Considerable number of Nigro Slaves," (NAAB 314: 14 July 1697). As a reward, Cola was granted his freedom and a gratuity of £40.

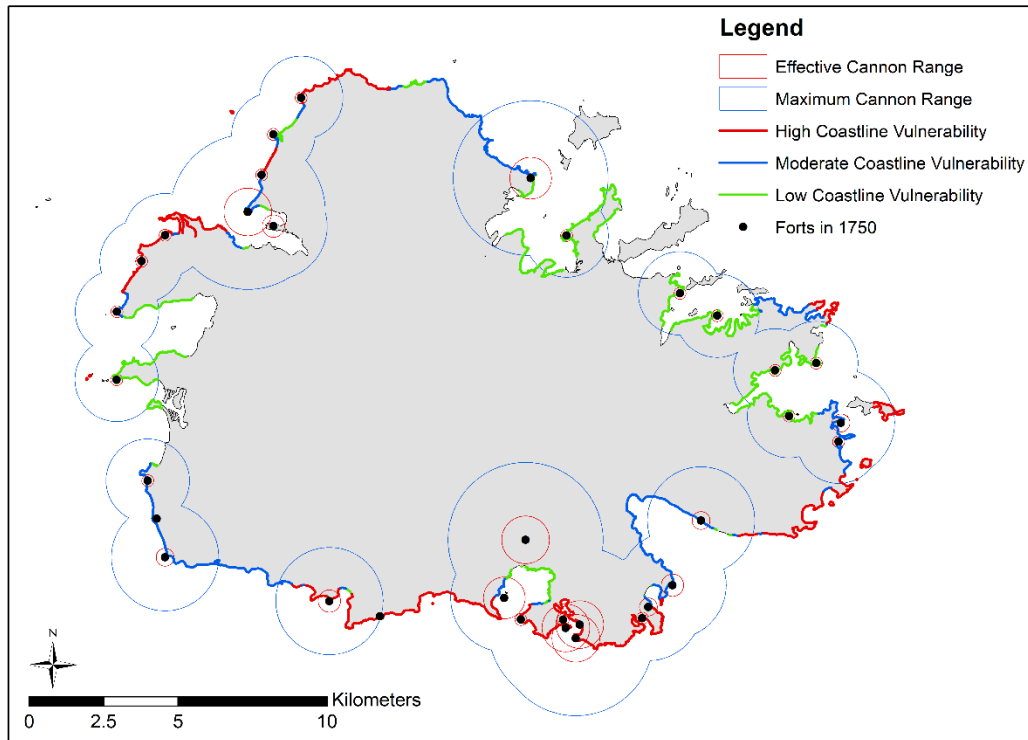
<sup>21</sup> Mathew's plan to reposition militia units in areas vulnerable to raids received considerable pushback from the poor whites who formed the rank and file members and who were expected to carry out these orders. Margins for survival for poor white ten-acre men were very small, and ongoing militia duty threatened their ability to survive. Prolonged service caused social tension with militiamen refusing to muster, forcing the Antiguan government to reconsider using the militia outside of emergencies (see Gaspar 1985: 39).

concentrations of fortifications in places such as Pearne’s Point and the battery at Fullerton’s Point at Five Islands, which were considered useless at the time because they were out of range of the shipping lanes, but nevertheless vital to the protection of St. John’s and the St. Mary’s coastline.<sup>22</sup> A similar haphazard approach was followed in Nonsuch Bay, where guard houses were constantly being erected inside the bay throughout the first half of the eighteenth century, protecting specific plantations, rather than considering placing a fort at the *only* narrow entrance; a solution which was only discovered in 1748 and successive guard houses at Pigg’s Point, Muddy Cove, and Flat Point (Figure 4.15a and 4.15b).



*Figure 4.15a: State of Antigua’s fortifications in 1729 with effective and maximum cannon ranges depicted around the forts. Note the concentration of cannons along the major harbors. Illustration by Christopher K. Waters.*

<sup>22</sup> Despite concluding that these two fortifications, “will be of but very little Service to the Trade of this Island for no Ship of any Burthen can come within Gun Shot of either of them Except when the Wind is very far to the Southward which rarely happens.” The legislature voted the money to construct these fortifications anyway (NAAB 324: 11 July 1744).



*Figure 4.15b: State of Antigua's fortifications in 1752. Note the shift away from the vulnerable east coast and increased defense around the west coast. Illustration by Christopher K. Waters.*

From this analysis, the assumption that Antigua's defenses constituted such an effective fortification network that the island was never attacked is false. While the fortifications were nominally oriented outwards, to provide protection against an outside force, their spatial organization did not adequately address coastal vulnerabilities. In defining vulnerability, I used environmental and historical data to develop a coastline vulnerability model, demonstrating spatially which areas of Antigua might be considered most in need of protection. In assessing where the fortifications were located, and in following the discussions taking place in the Antiguan legislature, the model does reflect the assessments that Antiguanians made in their time. However, the placement of the fortifications, despite the vulnerabilities identified by the model and in contemporaneous discussions, are largely poorly situated to address those vulnerabilities, and there is considerable change in their placement across the landscape over time. By bringing

their defensive value into question, though, we are able to better assess the motivation behind each fortification's placement in the landscape, and investigate the political decisions taken in their construction, maintenance, and decommissioning to better understand the island as a whole.

As a public works project, the Antiguan fortifications represent more the political and economic values of the controlling planters in the Assembly and Council. Whereas the earliest governments sought to create a more holistic defense policy by spreading defenses more or less evenly around the island, by the middle of the eighteenth century, the men in control retreated from this consideration in favor of protecting their own assets and interests over the welfare of the entire island. This consolidation pattern continued until the American Revolution, especially with the expansion of the Naval Dockyard at English Harbour, before that part of the island is assumed by the Crown for the Army and Navy in the 1780s.

Even in the best-case scenarios, however, it is likely that if Antigua was attacked, it could not have resisted for very long. Other islands, especially the larger French ones, fell to concerted attacks, while the other neighboring British islands fell to the French on a number of occasions. In addition to being overwhelmed, the Antiguan government did not have access to, or properly invest in, ordnance, maintenance or training. Indeed, several Caribbean scholars note that the colonial militia organizations in the region were largely ceremonial: newly wealthy individuals playing soldier, rather than effective forces (Dyde 2000; Gaspar 1985; for a contrary perspective see Graham and Metzgen 2007, see Chapter 1). The fortifications were subsumed into this martial culture driven by a desire to benefit from the cultural cachet that the military aesthetic conveyed, but without suffering the dangers of serving in an active combat unit. Antigua's fortifications were an extension of this martial culture: the fortifications fulfilled a particular aesthetic but without the education and experience in building and garrisoning fortifications

developed by engineers and artillerymen in Europe, these fortifications could not have properly fulfilled their functional role.

Still, the fact remains that Antigua was never seriously threatened after the successful French invasion in 1666, even though nearby St. Kitts, Nevis, and Montserrat each experienced several successful attacks across the seventeenth and eighteenth centuries. While the establishment of the Dockyard in English Harbour surely augmented Antigua's capabilities, that facility only really came into its full potential during the American Revolution. Prior to that, there were several stretches of time where the Dockyard was empty, and its use was contingent on the commanding officer in the region.<sup>23</sup> A better explanation is that Antigua is slightly to windward of the other islands in the Lesser Antilles, making it just that more difficult to approach for sailing vessels staging from a neighboring island. The other three islands in the Leeward Islands Colony are farther west, and therefore significantly easier to approach. Additionally, the reefs, shoals and offshore islands surrounding Antigua kept vessels from approaching too closely, which was not an issue with the newer, steep sided, volcanic islands. The additional navigation hazards dissuaded larger fleets maneuvering together and making Antigua that much more of a difficult position to attack.

#### **Additional Defensibility Considerations<sup>24</sup>**

Aside from the confluence of geography and wind direction, other factors play into how well-prepared Antigua was to defend itself. Cannons, the main defensive and offensive weapon of the seventeenth and eighteenth century, had to be procured, mounted and maintained. A fort without

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<sup>23</sup> Admiral Rodney, for instance, did not like English Harbour and attempted to move naval operations to St. Lucia instead, an action which the Antiguan legislature protested against vehemently (CO 9/25: 15 April 1762).

<sup>24</sup> The original impetus for this section on artillery quality came from an invited talk at the Fort Ticonderoga *New Perspectives on the 'Last Argument of Kings': A Ticonderoga Seminar on 18<sup>th</sup>-Century Artillery*. Fort Ticonderoga. 6 August 2017

working cannons was reduced to a wall in the landscape. To gain a better grasp on the complexities of artillery defenses and the capability of Antigua to mount a defense, a deeper exploration of the debates, controversies and material conditions of Antigua's ordnance history is necessary.

Colonial Antigua faced chronic shortages of ordnance throughout the seventeenth and eighteenth century. As Caruana states, the Royal Foundries had to work overtime to maintain supplies for the Royal Navy during wartime, with several vessels waiting months, if not years before they were outfitted by the Board of Ordnance (Caruana 1994). Naval vessels and coastal fortifications in Britain took precedence over Antigua and the rest of the British colonies when it came to supplying the cannon necessary for the defense of the island. This section examines the procurement process, the quality and quantity of cannon at Antigua's fortifications, and the caliber of weapon. The first two parts inform the qualifiable analysis of Antigua's fortifications and speaks to Antigua's position within the Atlantic World economy through a very specific, somewhat controlled commodity, and the poor quality of the weapons eventually acquired. The final section analyzes caliber of weapons the Antiguan legislature petitioned for as function to assess what the Antiguan elites believed they needed for their fortifications, and an examination of the known returns in 1729 and 1752.

Determining where Antigua's artillery came from in the seventeenth and eighteenth is difficult. Periodically, usually coinciding with new hostilities, the Antiguan legislature petitioned the Crown for new ordnance to replace the worn and unserviceable guns around the island.<sup>25</sup> The petition's formulation, with minor variation, opened with the how valuable

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<sup>25</sup> Known petitions recorded in the Antiguan Legislative Minutes come from 1731, 1734, 1740, 1746, 1754, 1765, 1767, and 1770 (respectively, CO 9/7: 28 September 1730; NAAB 322: 2 July 1734; NAAB 324: 2 February 1740/41; NAAB 324: 1 May 1746; CO 9/12: 26 April 1754; NAAB 327: 12 September 1765; NAAB 327: 26 January 1767; NAAB 327: 18 January 1770)

Antigua was to British commerce, referred to its strategic geographic position as the “key” of the British sugar islands, and ended with stating how poorly defended the island was. In return for the new cannon, the island would gather all the old cannons on the island to be sent back to the Royal Foundries to be either repaired or recast into new guns. All, except the 1730 and 1767<sup>26</sup> petitions, went unfulfilled and the government had to look elsewhere for its artillery needs; this poor track record is reflected in the pessimism that each debate brought before the petitions were even formulated.<sup>27</sup>

To make up part of the ordnance shortfall, the Antiguan government had to look towards the private market and buy or beg whatever ordnance they could. Unfortunately, there is little information on the non-military trade in cannon in the eighteenth century, but it is likely, given the need to arm shipping and the prevalence of privateers in times of war, that cannons were available in Europe, and procurable through itinerate merchants arriving in Antigua. There is one explicit case of the Antiguan legislature agreeing to purchase cannon from private sources. In 1745, Alexander Martin of the vessel *Saxoune*, had four new 12-pounders, with the accompanying accouterments for sale, in addition to six new 6-pounders which had already been pressed into service (NAAB 324: 27 August 1745). The 12-pounders were purchased, but the fate of the 6-pounders is unknown.<sup>28</sup>

In addition, Antigua received occasional grants of cannon from different sources. One of the largest came from the Duke of Montague’s private stock. The Duke of Montague (b. 1690-d.

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<sup>26</sup> The 1767 petition was largely granted because the cannons were stored in English Harbour right after the end of the Seven Years War (NAAB 327: 26 January 1767).

<sup>27</sup> For example: see NAAB 324: 2 February 1740/41 [sic].

<sup>28</sup> In the deliberations, the Council had a curious statement, declaring that, “The small Gunns I think are no so much wanted; and that the large ones are something overrated,” but gave their consent to the purchase (NAAB 324: 5 November 1745). The statement does not make much sense in light of recent alarms and that they had already pressed the smaller 6-pounders into service, clearly seeing some utility in those guns at the time.



1745), was made governor of St. Vincent and St. Lucia in 1722, but the colony failed and retreated to the Leeward Islands. Several of his personal cannons made their way into St. Christopher and Montserrat. In 1739, the Duke granted Antigua sixteen of them: nine 12-pounders, one 9-pounder, and six long<sup>29</sup> 6-pounders (CO 9/12: 31 July 1739). Of these, the smaller caliber guns were mounted at Indian Creek Battery and Fort Christian, (NAAB 324: 2 July 1741), while the 12-pounders were sent to Rat Island (NAAB 324: 24 November 1743).

A second grant of large caliber weapons came in 1745 to augment the defenses around the newly expanded Dockyard facilities at English Harbour. Thirty 24-pounders, six 18-pounders, and six 12-pounders were sent by the Board of Ordnance as Naval Stores, although half of the 24-pounders were diverted by Admiral Townsend to Barbados.<sup>30</sup> The remaining 24-pounders and two each of the 18- and 12- pounders were placed on the expanded battery at Fort Berkeley at the mouth of English Harbour. In 1752, a return of fortifications in Antigua identifying that the guns at Fort Berkeley “Belonging to the King, all Serviceable,” and that they

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<sup>29</sup> “Long” here refers to the barrel length of a particular cannon. For much of the seventeenth and eighteenth century, the prevailing theory was that the longer the barrel, the more accurate a cannon was. Mueller (1768: vii-xii), concludes that length does not matter as much as the quality and straightness of the boring. Nevertheless, the concept that a longer tube increased the range of a cannon remained a potent mistruth in the eighteenth century (and one which Mueller was trying to debunk), and carries into modern naval fiction, such as the Aubrey-Maturin series by Patrick O’Brian and his recurring image of the brass long nines personally owned by the character Jack Aubrey.

<sup>30</sup> NAAB 324: 1 May 1746. This report records the state of Antigua’s defenses as dire and chronicles some of the mismanagement (blamed on the Crown) related to fortification and defense. While the appropriation of ordnance to English Harbour may be seen as a bonus, rather than a detrimental effect overall, Admiral Townsend’s shifting cannon to Barbados is, in the eyes of the Antiguan government, an unforgivable insult. First, the Antiguan government blamed Admiral Townsend for not doing enough to protect Antigua’s shipping from privateers, and abandoning the islands for Canada with the majority of his fleet, thus leaving the islands open to attack. Second, and perhaps more deeply felt, is that Antigua and the remainder of the Leeward Islands, argued successfully in the aftermath of the Second Anglo Dutch War (1665-1667), the central colonial government in Barbados had not adequately supported the Leeward Islands materially or with men to protect them, thus allowing the French to capture all of them except for Nevis. The direct result of this was the creation of the Leeward Islands Colony separate from Barbados, which was seen as a regional power sucking up an unfair share of the resources dedicated to the Caribbean.

were placed there in 1746 by Commodore Knowles or Admiral Townsend, the Commissioner of the Dockyard and Commanding Flag Officer for the station respectively (Horneck 1752: Plan No. 3).

### *Caliber*<sup>31</sup>

Data on the number, type, and caliber weapons in Antigua in the seventeenth and eighteenth centuries is sparse and incomplete. While there are two returns which list the quantity, caliber and location of each cannon in 1729 and 1752, these are the only whole returns available with this kind of resolution. Other returns, such as the ones taken in 1704, 1715, 1717, 1734, 1745,<sup>32</sup> and in 1779 give only the total number of guns, rather than breaking them down by caliber, and are only partial lists of cannon deployment, often focusing regionally on particular parts of the island, rather than on the island as a whole<sup>33</sup> (respectively, CO 9/1: 5 September 1704; NAAB 319: 3 March 1714/15; CO 9/4 21 August 1717; NAAB 322: 21 February 1733/34; NAAB 324: 24 April 1745; NAAB 324: 20 May 1745; NAAB 330: 18 February 1779). Elsewhere, there are individual descriptions of discreet locations, or small collections of fortifications which describe the number, and sometimes the caliber of cannon found there. Piecing all of this together establishes certain trends, and is useful in serving as a proxy for understanding how the Antiguan government differently valued the islandscape.

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<sup>31</sup> Caliber, in this case, refers to the size of a solid iron projectile used widely in eighteenth-century cannon. The Borgard reforms in 1717 created a standardization within the British ordnance system, defining cannon based on the weight of the shot it fired. Borgard, a Danish artilleryman in the service of the British Crown, developed the only comprehensive system of artillery for the Board of Ordnance, drawing up plans for 3-, 4-, 6-, 9-, 12-, 24-, 32-, and 48-pounders, which were put into production (Mueller 1757). While designs continued to change over the eighteenth-century, primarily aimed at making weapons lighter, the standardization based on shot weight remained.

<sup>32</sup> There are two separate returns for 1745. The first one was in April focusing on St. John's, while the second was reported in in May, and discussed the area around English Harbour.

<sup>33</sup> Most often discussed is the strip of beach from Fort James northwards to Dickenson Bay, the primary threat to St. John's Town, and the area around English Harbour, especially with the development and expansion of the Dockyard.

Island-wide, the guns on Antigua mirror the general increase in caliber that characterized the eighteenth century. While at the beginning of the eighteenth century, the artillery on Antigua tended to be of smaller calibers, as production techniques developed and more iron guns became available, Antigua was afforded larger caliber weapons (Caruana 1994a). Requests for cannons by the Antiguan government in the first half of the eighteenth century focused on obtaining 12- and 9-pounders, with a few larger caliber weapons meant for Monk's Hill and Fort James. By the American Revolution, however, the Antiguan government was asking for one hundred pieces of artillery from the Board of Ordnance, all of them to be over 18-pounders, to augment the twelve 18- and 24-pounders on the island (NAAB 330: 18 February 1779).

The 1729 Return (CO 152/18/T99) is a complex chart which lists every fortified point along Antigua's coastline along with information on the types of ordnance and supplies which can be found in each location. 1729 was in the middle of a long peaceful period for Britain. Sugar cultivation expanded dramatically as the interior forests continued to be cut down and capital investments poured into new plantations (Dyde 2000; Engerman 1996; see also Anderson 2012), putting perhaps a new pressure on the Antiguan government to reexamine their long-neglected defenses, last needed at the end of Queen Anne's War (1701-1714). The artillery stores the 1729 Return highlights some interesting trends. First, the island has 125 cannons devoted to their defenses, with most of them (n=77, 61.2%) reported to be "Good," while only 14 (11.2%) were reported as "Bad." The remainder were unmounted, were considered structurally sound enough to be serviceable.<sup>34</sup>

What makes this return interesting, however, is the heterogeneity of calibers. With the Borgard Establishment in 1716 laying out a standardized system based on the weight of shot, the

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<sup>34</sup> Maintaining gun carriages was a constant task which the Antiguan government was largely inadequate in fulfilling. The 1729 Return records only 78 carriages, of which only 55 were considered serviceable.

proposed system included calibers of 3-, 4-, 6-, 9-, 12-, 18-, 24-, 32-, and 42-pounders which the Board of Ordnance adopted immediately and ordered all new ordnance production to follow this establishment (Browne 1865: 8-9). Antigua's 1729 arsenal contained fifteen non-establishment calibers, in addition to five establishment calibers ranging from 3- to 24-pounders. This heterogenous collection suggests that the Antiguan government was scrounging cannon where they could find them, rather than getting them from the Board of Ordnance. Sources likely included guns from other European nations which cast cannon based on their own measurements and establishments, but potentially also military surplus which could have included older weapons. One of the issues is that cannons constitute a non-perishable resource insofar as they do not decay over time if they are not used. Caruana (1994 vol. 1: xvii), states:

...exactly how many rounds a gun could fire before it was worn out has never been accurately established, but it was capable of three repairs, and consequently, like a modern gun, it had four quarters of life; moreover, at least in an iron gun, one quarter of the life could be as much as 2,500 rounds... This implies that the guns in question should have a full life of 10,000 rounds.

He continues with examples of mid-seventeenth century cannon appearing on Royal Navy ships in the mid to late eighteenth century: becoming especially prevalent in times of acute shortage. Evidence of older guns in Antigua is abundant, where several are embossed with the Tudor Rose: the English monarchical symbol cast on royal cannon between 1547 and 1714 (Nicholson 1994).<sup>35</sup> With the Bogaard Establishment and the constant new development of artillery by the Board of Ordnance throughout the eighteenth century, it is likely that many of Antigua's cannon were surplus: still sound, but no longer consistent with the new British military schema. These guns were then let out, either directly to the island's agents looking to procure new guns, or, more likely, they found their way onto merchant vessels and privateers headed to the Caribbean

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<sup>35</sup> Another example of the Tudor Rose embossed on artillery come from the *Mary Rose* which sunk in 1585, and can be found at military sites across Britain and the America (Meide 2002: 27).

and were acquired in occasional purchases or seizures. This further reinforces the idea that Antigua represents a poorly conceived martial landscape, one devoid of military consideration by the metropolitan government by showing how piece meal Antigua's defenses were built. The Antiguan elites bought what they could, when they could, with little help or input from the Crown or other military operations in the first half of the eighteenth century.

The 1751 Return, based on the reports and maps by Kane William Horneck, a Captain in the Royal Engineers, demonstrates the shift in the Antiguan Legislature's approach to defending the island in the eighteenth century. Horneck, who died shortly after completing Antigua's return, was sent to several islands in the Caribbean to assess the state of fortifications after a devastating hurricane. For his work, he concentrated on the 14 fortifications, and five subsidiary fortifications, which the Antiguan government deemed important enough to maintain a permanent garrison of paid gunners and matrosses.<sup>36</sup> The smaller guard houses were not included in his assessment.<sup>37</sup> Horneck, as with the 1729 Return, also lists the number of cannon and their condition at each fortification. Of a total of 204 cannon, half (n=102) were considered in an unserviceable condition.

The 1751 Return is only of limited utility in a defensibility assessment, as it does not include the smaller guard houses and batteries erected during the War of Austrian Succession (1740-1748). Furthermore, Horneck seems to have partially copied a return commissioned by

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<sup>36</sup> In a petition to the Crown to help alleviate the financial stress accrued by defensive projects undertaken during the War of Austrian Succession, the Antiguan Legislature claimed to support gunners and matrosses on 15 fortifications (CO 9/20: 8 March 1749).

<sup>37</sup> The only fortification with a map but without an equipment in the 1751 return is Great George Fort on Monk's Hill, which would have had a considerable arsenal of cannon, although the precise number, caliber, and condition is not given in this report. As Monk's Hill and its associated Codrington Battery are neither within an effective range of the water, and barely within maximum range, nor were they considered part of the seaborne defenses of Antigua, this exclusion does not necessary impact the defensibility analysis of the Antigua's vulnerable coastline.

the Antiguan Legislature in 1745. In the latter, the Legislature commissioned the island's Surveyor General, Robert Baker, to "be Employed to make a Ground Plat of each Fort & Battery Expressing its Situation & use the Thickness of the Walls, & Number of Embasures in each Face or Flank & the Size of the Cannon in each & whether Good or Bad by which it will be one View appear What & How many Cannon are Wanting," (NAAB 324: 3 May 1745). The only extant record remaining from that effort is of Fort Berkeley, which Horneck updated in his report (image in Nicholson 1994: 18). Baker, however, went on to draft "A New and Exact Map of the Island of Antigua," published in 1749, on which he indicated in the locations of all of Antigua's fortifications, including the small guard houses and lesser batteries. He also conveniently distinguished the difference between the primary fortifications, as inspected by Horneck with a hollow bastioned symbol, while the lesser fortifications received only a hollow square symbol. The spatial data from these sites were added with the Horneck collection, and where possible, filled in with data pulled from the historical record. Drawing from what is known about the smaller fortifications, sites with an unknown caliber of weapon are assumed to have no larger than 6-pounders.<sup>38</sup>

By using these two returns as a base, and extrapolating additional information from the documentary record relating to the maintenance and upkeep of these sites, it is possible to assess what the priorities of the Antiguan government were in protecting the island. The distribution of the cannon around the island in 1751 shifts from the deployment pattern in 1729. Whereas in

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<sup>38</sup> These data are limited, with only the number of guns appearing occasionally in the records, and caliber not appearing at all in this instance. For this analysis, 6-pounders were chosen because of their relatively small size and weight, making them easier to move around the island, but also do to the large number returned in the 1751 Horneck maps, suggesting that this caliber was widely available. It is possible that lesser caliber cannons were at these fortifications, but with the ubiquitous shortage of cannon Antigua always faced and how often small caliber weapons appear in the main fortifications, anything larger than a 6-pounder would have been reserved for the larger fortifications.

1729 the distribution is more regularly spaced around the island, including the eastern coastline of the island, the focus of the 1751 Return shows the dual priorities of the island's elites: St. John's and English Harbour. The earliest indications of a defensive strategy in 1704, and continuing throughout the first half the eighteenth century, demonstrates a defense focused around the earliest areas of inland expansion: Falmouth, St. John's, The North South, and the threatened eastern coastline. St. Mary's Parish directly to the south of St. Johns, encompassing the Sherkley Mountains, was largely ignored for the more fertile central plain. As St. John's grew in importance, and plantations spread south along the west coast and into St. Mary's Parish, defenses shifted to protect this newly vulnerable area with the establishment of Cades Bay Battery, Johnson's Point Fort, and the several smaller guard houses between the Cripplegate in the north, and Old Road Fort in the South. The shift in St. Mary's also reflects an influx of new capital and new families establishing themselves as sugar planters, with many recently established elites entering into Antiguan politics, supplanting the older successful generation who had largely retired to Britain and became absentee owners. Their new power added additional defenses along this coast, while sacrificing the poor ten-acre men of the east coast (see more Chapter 7).

Although precise information relating to the number and caliber of weapons during the Seven Years War and American Revolution are wanting, extrapolating from the trends towards desires for larger ordnance, and knowing which fortifications were abandoned and maintained, we can evaluate the priorities of the Antiguan Legislature on the martial landscape of the island. With the Cripplegate Battery<sup>39</sup> being the only new fortification construction project happening

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<sup>39</sup> Cripplegate Battery was originally known as the Goat Hill Battery in the seventeenth century. The Cripplegate was abandoned sometime in the 1740s, and revived in the 1780s. It was renamed the Queen's Battery. Today it is called Fort Barrington after the Admiral in charge of the Caribbean Station while the battery was being built, and attributed to his genius (Nicholson 1994). This seems to be a

between the end of the War of Austrian Succession and the American Revolution, shifts in the deployment of artillery are key in understanding this transition. Unfortunately, this information too is lacking. The Antiguan government successfully lobbied for all or a part of the 124 pieces of surplus ordnance stored at English Harbour at the end of the Seven Years War (1756-1763), which were distributed amongst Antigua's forts according to a lost plan (NAAB 327: 29 March 1770). However, the quality of these weapons must have been either poor, or of such small caliber, due to a report nine years later lamenting that the island only possessed twelve ordnance pieces of 18-pounds or larger (NAAB 330: 18 February 1779). The lament accompanied a request for an additional 100 large caliber pieces was not met by the Crown during the American Revolution, suggesting that Antigua remained vulnerable and inadequately protected.<sup>40</sup>

#### *Ordnance Quality*

One further aspect of Antigua's ordnance considered for this research is the quality of cannon arriving at the island and the ability to maintain those guns that did arrive. While not directly built into the defensibility model, quality impacts the ability to actually deploy guns as offensive and defensive weaponry. If a cannon did not work, it was useless. While the direct impact of poor quality ordnance is not factored into the defensibility model,<sup>41</sup> it is an important aspect of

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popular myth as there is no indication that Admiral Barrington had anything to do with the newly reconstructed battery.

<sup>40</sup> The French gathered a large fleet of warships and transports in Martinique in 1780, ostensibly to threaten the Leeward Islands. In a fortuitous intervention, the Great Hurricane of 1780 ripped through the Eastern Caribbean, destroying the French forces and killing over 4,000 men. The hurricane passed Antigua, leaving it unharmed, but dropping much needed rain on the drought stricken island, before continuing a northward path of destruction (Mulcahy 2006).

<sup>41</sup> Assessing calibers of weapons to determine range required several historic assumptions extrapolated mostly from the two most thorough fortification returns in 1729 and 1751, along with pulling vague data directly from the orders and discussions of the Antiguan legislature. While these reports also offered snapshots of how many cannons were unserviceable at those specific instances, the basic assumptions about range remain constant. This affords us the opportunity to analyze the potential of the fortification system. Layering additional data about the number of unserviceable cannon onto this model does not contribute to the analysis of possibility, rather, is a function of what is available at the time. By adding



understanding Antigua's defense policy and elite priorities in the social construction of the martial landscape.

Ordnance was generally of a poor quality in Antigua. This was due to two factors: old guns entering into the service already worn compounded by poor maintenance once the guns were deployed. Cannon were oft described as “unmounted,” “hony combed,” and “Bad & Unfit for service.”<sup>42</sup> The 1729 Return highlights the heterogenous nature of cannon arriving on the island, with a huge number of different calibers, reflecting different countries of origin, but also suggesting guns that had been re-drilled and refurbished, rather than new guns.



*Figure 4.16: An exploded 24-pounder at Blockhouse, Antigua. Photograph by Christopher K. Waters.*

There are several reports over the eighteenth century of discarded cannon dismantled, buried in sand, or even underwater, which, when considered necessary, were hauled out, “refurbished” and reused.<sup>43</sup> A report to the Council in 1754, the Assembly notes that several

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this information, we could unnecessarily complicate the model without gaining more insight than by a historical analysis of the materials at hand.

<sup>42</sup> NAAB 324: 24 April 1745; NAAB 324: 29 September 1740; NAAB 319: 14 March 1714. These descriptions accompany artillery more often than not in the Assembly records.

<sup>43</sup> Other examples include cannon which were cast off in Willoughby Bay, rescued, only to be left buried in the sand (NAAB 324: 27 August 1745). These guns were left there for over a year, however, until considered suitable for the new Fort Harmon (NAAB 324: 7 January 1746/47), which were sent there

cannon, “lie now disposed around the Country,” along with several more cannon lying cast along the hillside at the barracks on Rat Island, all of which were abandoned due to their inability to fire (CO 9/22: 3 October 1754). Useless cannon plagued the island. Earlier, in 1734, Governor William Mathew noted that several cannons had lain in the sand at the Cripple Gate battery just south of principle harbor at St. John’s, and had to be dug out of the sand (NAAB 322: 2 July 1734). Ironically, a year prior, the petition by Colonel Robert Weir for “Mounting and Drilling the touch holes of the Guns at Cripplegate,” was considered an unnecessary expense and not granted (NAAB 322: 23 May 1733). And this was not an isolated incident, with cannon being dug out of sand and mud, given a cleaning, and returned to service.

The tropical environment was also highly corrosive, destroying ordnance tubes with rust, but also rotting gun carriages from underneath, causing damage to the ridged iron tubes. In order to prevent some of this damage from accruing over time, the Council ordered in 1745 that:

...purchas Red paint & byl for all the Carriages, and Tar for the Guns and orders also to the Gunners of each Fort to Paint each Carriage, and after Beating off the Scales and Rust on each Cannon to put thereon a good Coat of Tar, & where there may be any Cannon under the immediate Direction of no Gunner, that the Treasurer do Employ proper Persons to do the same by them and this without Delay, and in order to pursue such Cannon & Carriages in Constant good Order that His Honour would also let the Gunner of each Fort, Battery or Platform know, that if the same thing was not done once sometime within the Month of June in every Year they should be made to answer for such neglect before a Court Martial (NAAB 324: 3 May 1745).

Despite this order, the maintenance of the war material remained problematic, with reports of useless cannon lying around the island. In times of need, cast off guns were dug out of the sand and mud, and even raised from the seabed, cleaned, and remounted, although their usefulness after being exposed to such degradation is perhaps questionable (e.g. NAAB 322: 2 July 1734;

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sometime in the intervening year, when it was recorded that shot was required for the guns mounted there (NAAB 324: 12 November 1747). The saga of these guns went well over two years and were finally mounted in the closing months of the war.

NAAB 324: 27 August 1745).<sup>44</sup> Indeed, in one particularly acute shortage, the Antiguan government considered sending a salvage operation on the rumors of a Spanish Galleon sinking in the Virgin Islands to the north, which was reportedly carrying arms and ammunition, even though the quantity and quality of the weapons was unsubstantiated, just as the rumors of the wreckage were (NAAB 324: 25 May 1742).<sup>45</sup>

A further, although rarer instance of degradation came from successful raids, generally by French Privateers, against Antigua. Raiding was a common method of personal enrichment for privateers, while simultaneously fulfilling a patriotic duty to harm your enemy. Naula Zahedeih (1986), discusses the lucrative role privateering played in providing startup capital for the Jamaican plantation system in the late seventeenth and early eighteenth centuries. This pattern repeated itself throughout the seventeenth and eighteenth centuries, with several successful captains becoming quite wealthy (e.g. Shomette 2016). While privateering is mostly understood as an event which took place on water between vessels, privateers also landed, sacking plantations, and removing what wealth they could. In Antigua and the rest of the Caribbean, enslaved Africans were a primary target, as they were immensely valuable and easily transportable compared to the large, fixed machinery used in sugar processing. In order to cover their escapes, privateers would use a variety of different methods to foul cannon, including driving nails into touchholes, breaking off trunnions, and stuffing bores with wet sand, stones, and other material to prevent them from being easily cleaned and fired. While the raids themselves are not generally recorded in the legislative minutes, the costs accrued by ordering craftsmen to refurbish cannon are. In one particular instance in 1745, the Assembly ordered that,

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<sup>44</sup> It is possible that unserviceable cannons were used as dummy stations; visual threats from a distance where privateers, pirates and naval commanders could not assess their poor state, although, with the constant state of neglect, it is possible that even this tactic was not considered.

<sup>45</sup> The scheme was ultimately considered too expensive and the issue was dropped.

“All the Guns that were Spiked are Drilled, or had new Touch holes made,” (NAAB 324 10 April 1745). A year later, the Assembly complained at the cost accrued, “Amounting in the whole to no less than Seventy Seven Pounds nine Shillings for Drilling Eleven Guns & Clearing Five One of which was Stopt up with Sand only,” (NAAB 324: 8 May 1746).<sup>46</sup> Intentional damage, along with poor maintenance and natural degradation in the Caribbean heat destroyed much of Antigua’s ordnance stocks, severely hampering their efforts to protect the island.

Between old ordnance and poor maintenance, Antigua’s cannon presented a serious liability to the men paid to service them. A petition filed with the Antiguan government by a William Bowers, prayed that he would be allowed to sell rum drinks without paying taxes, “he having had the Misfortune of breaking his Legg by Firing one of the Guns belonging to the Publick of this Island,” (CO 9/20: 4 January 1747/48). In another instance sometime around 1768, a gun exploded at Fort James, “occasioned by the accidental firing of a Gun in saluting his late Excellency General Woodley upon his arrival in Government,” (NAAB 328: 21 July 1774). Two men were injured, both losing their right arms in the explosion.<sup>47</sup> This second instance offers a snapshot of the poor state in which Antigua’s cannons were after the Seven Years War. Firing salutes and signals requires less gunpowder and no shot, thereby reducing the stress of the controlled explosion inside the chamber. That this particular cannon exploded from firing a salute—a much smaller quantity of gunpowder and no shot—suggests that this gun was already

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<sup>46</sup> Unfortunately the location of these guns is not given. Given the number, however, it is likely that this represents cannon from several fortifications since the only Fort James, the fortifications around English Harbour, and Monk’s Hill would have had this many guns. Whether this is the result of one large raid targeting a large part of the coastline, or several raids across the island is currently unavailable.

<sup>47</sup> William Lamb and James Telford both petitioned the Antiguan legislature for money, claiming that due to their injuries, “he was deprived of the power of earning his Bread,” (NAAB 327:18 January 1770; 8 February 1770). The Legislature granted the men £50 and £30 Antigua currency respectively. William Lamb’s injury accrued a further £49.18 in medical expenses paid to John Muir, Surgeon (NAAB 328: 21 July 1774).

worn and therefore completely unserviceable in case of an attack. Perhaps this was one of the weapons Antigua received in the consignment recently acquired from Naval stockpiles at English Harbour? While only a small portion of this particular story is passed through the legislative minutes, within a decade of this accident, the Antiguan government was again begging for new ordnance from the Crown, suggesting that more accidents were liable to continue happening.

*Elites and their Ability to Deploy Cannon Effectively in Antigua*

A final consideration of ordnance is how they were deployed around the island. It is likely that the elites participating in the Antiguan legislature, especially those who were assigned to committees overseeing these fortifications did not understand the basic principles of gunnery. For instance, in 1778, a committee was selected to inspect the coastline around Five Islands for a proper place to erect additional batteries: the emplacements constructed in previous conflicts already forgotten. They chose Goat Hill, just south of St. John's Harbour (and coincidentally, nowhere near Five Islands), as the best place for a new battery (the previous emplacements in the seventeenth and early eighteenth centuries clearly forgotten), because it:

will also be an Everlasting protection to allow Shipping which may lay over the Barr at the Mouth of the Harbour of Saint John, which from their distance from Fort James are under little or now Protection & are very liable to be Cut out by the Enemy, as the Shot from this Fortification if built will be able to Command every Vessel laying between the Sisters & itself and from its Advantageous Situation Commands Deep Bay & Thomas's Bay & will Effectually prevent the landing of any Enemy whatsoever & also command every hill to the East (NAAB 329: 24 September 1778)

They continue, stating that "the Summit of the Hill in it's present situation is ninety feet by sixty feet ...& may be easily defended as we believe no Vessels whatsoever can bring their Guns to bear on said Fortification." There are several obvious shortcomings of this analysis presented by the committee of seven Assemblymen and three Council members which speak directly to the underqualification of these men to make these assessments. First, the distance from the

anchorage at St. Johns Road and Goat Hill is negligible (approximately 1500 yards). While Goat Hill has an elevation advantage, allowing the gunners to see over the vessels at the road, the distance is still great enough to make effective fire difficult to deliver. Second, while Goat Hill does have a spectacular northerly view of Antigua's coast, the Sisters, a small group of islands off the coast of Dickenson Bay, are over 4,000 yards away, well outside the ranges cited by Mueller and others. Finally, an elevation of only 90 feet<sup>48</sup> was still well within the 10° elevation range of vessel borne cannon (Caruana 1994a: 12). These poor assumptions were neither caught by the committee, nor the Council or Assembly, which both signed off on the project and ordered it to begin immediately. This example serves to justify the final assessment of these "colonial built fortifications," as near useless, poorly conceived and ill situated in spite of the knowledge available and in circulation at the time (MR 1/1070).

### **Conclusion**

Drawing on the physical attributes of Antigua's geographic location, the spatial distribution of the island's defenses, and assessing their construction relative to the vulnerabilities of Antigua's coastline from sailing vessels, the fortifications were too small, poorly located, and understrength in terms of ordnance as well as defensive attributes, to be declared effective in mounting an external defense by historic standards in the best of situations. Antigua's defenses were never in the best of shape. Cannon were broken or missing; iron shot at fortifications did not always fit the size of gun available; there was inordinate difficulty in shipping adequate supplies of gunpowder to more distant fortifications, and then keeping it dry was difficult; and the men hired as gunners and matrosses were of questionable ability, loyalty, and hard to keep on their posts. Considerations for defense were distilled through naïve committees of gentlemen, each spinning

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<sup>48</sup> The 1974 DOS 5000 Map of Antigua records the point at being 171 feet in elevation, further suggesting that the Committee members were inadequately able to fulfil their task.

their own agenda centered around wealth accumulation and social capital accumulation, rather than assessments through military experience. In this way, the island's elites built their martial landscape around them to mirror their own needs, rather than considering a holistic defensive strategy.

The defensive motivation, perhaps, is best encapsulated by the continual efforts to maintain Great George Fort on Monk's Hill, and Fort James at the mouth of St. John's Harbour, both fortifications with dubious defensive qualities, as symbolic tokens of the islands defensive resolve. Knowledge of how easily large forces could seize islands during the course of a war perhaps seeped into the subconscious' minds of the island's elites who focused their energies around two, tangibly large and seemingly imposing fortifications as symbols of comfort, rather than signaling impermeability.

That being said, it is important to state that the basic assumption that Antigua's fortification network was primarily conceived for defense against external threats is borne out largely in the reactionary debates recorded in the legislative minutes. The physical evidence and corroborating spatial modelling, however, requires a more complex and nuanced interpretation of the fortifications in order to assess their effectiveness in fulfilling the goals of external defense. Here, the frantic nature of Antigua's defense appropriations project becomes clear: fortification construction and expansion were reactions to nearby events, whether they were rumors or were, in fact, based in some reality. This haste, along with the placement, planning and construction of the fortifications demonstrate not only that the Antiguan elites did not possess the technical capacity to create properly engineered defenses according to the best practices of the time, but that they were more concerned with spatially organizing their defenses around personal priorities rather than considering Antigua's defenses holistically. The results of this frenetic activity, and

the following long periods of neglect and mismanagement, suggests that defense against an invasion was not considered a realistic option, and that retreat into the island's citadel was the better option.

The natural defenses around Antigua—shoals, reefs, shallow water, narrow inlets, etc.—and its position slightly to windward, making travel from the other islands in the Lesser Antilles slightly more challenging, afforded Antigua significant protection over a large part of the island. Based on the analysis done here, I can state that Antigua's defenses did not constitute an effective defense meriting the language through which they are often interpreted. Understood in context, nothing about these fortifications suggest that they were monumental or impressive. They were neither militarily sound, nor were they located in places which were vulnerable. Rather, the martial landscape which the Antiguan government built around them, creating structures which looked like fortifications but did not have the care, thought or theory embedded in them to produce an adequate defense. By placing them haphazardly across the landscape, The Antiguan elites focused on maximizing their social and political needs in maintaining their status and enhancing their reputations.



## Chapter 5: Antigua's Fortifications as Internal Security

*Your Committee further pray leave to report That they think the charge of Thirty Pounds per annum for each of the two Negroes said to have been employed as Matrosses, ought to admitted, as the Gunner made them do all the ordinary business of the Matrosses*

Committee Report to the Antigua Assembly, 27 May 1784

### Introduction

If Antigua's fortifications were poorly designed to meet external threats, they were even more unsatisfactory in meeting the needs of internal security. As discussed in Chapter 4, although Antigua's fortifications were, at least rhetorically, intended to provide the island with external defense, the defenses which were built were out of place, too small, and could not have provided the island with protection against a foreign attack. External fears were not, however, the only threats discussed by the Antiguan elites. Another concern periodically debated in the Antiguan legislature, was that of the "Domestick Enemy," on the island (NAAB 324: 6 December 1743). These comments correlate to the internal security pressures faced by the island's elites who relied on enslaved Africans for their wealth and status.<sup>1</sup> Enslaved laborers from Africa

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<sup>1</sup> In these petitions for additional resources, the Antigua legislature identified enslaved Africans as the primary domestic threat to the island's prosperity. This chapter is largely concerned with this dichotomous relationship as this is the primary focus of the vast literature on the historic Caribbean. It should be noted, however, especially in the seventeenth century, that the Antiguan elites considered other groups just as suspect and detrimental to the security of the island, including settlers from Ireland, Jewish people and Quakers. Quakers, as avowed pacifists, were seen as undesirable in the seventeenth century since they would not serve in the militia and could not be counted on to fight against outside invaders or to quell a slave rebellion (Gragg 1992: 781). In 1694, Jewish people were explicitly banned from carrying on business in Antigua, seen as equally undesirable, but this ban was repealed in 1701 (CO 8/1: 32; CO 8/1: 69). The Irish, and Catholics in general, however, were seen as dangerous to the stability of the Leeward Islands, in spite of their successes as planters and their incorporation into civic society (Zacek 2010: Chapter 2). The prejudice against the Irish stemmed from the entangled history with England, but also fear of the shared religion with the French and becoming a fifth column should the French attack. Indeed, there were several instances of this happening in the Leeward Islands in the seventeenth century, including in Antigua where a large group of Irish indentured servants rose up and caused additional damage to the plantation infrastructure they were forced to work after the French left in 1666 (Oliver 1899). As late as 1715, Antigua passed a law to prevent the further increase in Catholics to the island (CO 8/4: 20), although as the proportion of enslaved Africans increased, these fears seem to

outnumbered the white population on Antigua by the end of the 1670s, and the proportion of enslaved Africans only got larger as the eighteenth century wore on, and violent insurrection was never far from the minds of the white population. The continuing demographic shifts exacerbated these fears. By 1730, the white population was shrinking, both in absolute terms as well as relative to the number of enslaved Africans on the island.<sup>2</sup> Compounding the fear elicited by the demographic decline of the white population were occasional assaults and murders against white slave owners and overseers, and two slave conspiracies on Antigua in 1729 and 1737, as well as a rash of other rebellions across the Caribbean around the same time. Maintaining internal security, then, was a major goal of the island's elite. This begs the question, since fortifications are, by design, bastions of contained violence, did they play a purposeful role in the internal security of the island?

This question is multifaceted and significantly more complex given the historical context of Antigua as a sugar producing island. As a plantation society reliant on enslaved labor, the Antiguan elites were wary of not only foreign enemies, but also of domestic unrest (Gaspar 1979; 1984; 1985; 1992a; 1992b; Lightfoot 2015; Sheridan 1976; Zacek 2010). White fears of slave rebellions in the Western Hemisphere are well documented, including investigations into the coercive practices developed and executed to maintain control over enslaved populations (Brown 2003; Burnard 2015; Craton 1978; 1980; 1982; Genovese 1992; Weik 2012). This chapter examines how Antigua's elites discussed internal security and compares their rhetoric to the organization, placement and construction of Antigua's fortification network to assess to what degree the internal social dynamics of the island informed their defense policies.

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have been largely pushed aside in an acknowledgement of a greater internal enemy to the white plantation elite.

<sup>2</sup> See Table 2.1 on page 52.

One of the complicating factors faced in investigating the role Antigua's fortifications played in exerting control over the island's enslaved labor force is the lack of direct evidence in archival and in archaeological sources. In order to assess if and how Antigua's elites used the fortification system to enhance internal security, this chapter applies current historical and archaeological approaches to Caribbean slavery in the seventeenth and eighteenth centuries to investigate how small white populations controlled much larger enslaved populations. One of the major paradigms is surveillance. I unpack this problematic and elusive concept for the Caribbean and Antigua, and apply the concepts developed in this literature to Antigua's fortified sites. I test whether Antigua's fortifications might have been used as part of an island-wide surveillance network, deploying government resources to help protect the plantation system. After addressing surveillance as the dominant paradigm for internal security in the Caribbean, I examine the architectural and social evidence for additional instances which might suggest that fortifications were modified to accommodate an additional role in maintaining internal security. From these disparate strands of evidence, I conclude that the evidence for Antigua's fortifications serving as part of a grand internal security apparatus does not exist at the scale of individual fortifications, or as an island wide system.

### **Coercion, Violence, and Security in Slave Societies**

One of the key components in societies reliant on enslaved labor are the methods and means whereby the enslaver was able to coerce individuals to complete tasks for the benefit of the enslaver. For recent Caribbean historians, the underlying emotion guiding the relationship between the enslaver and enslaved was fear: fear of insurrection, murder, and loss of property (Brown 2003; 2008; Burnard 2015; for Antigua see Gaspar 1985). For the enslavers, these fears manifested in a regime of brutal punishments, grueling work regimes, and physical and

emotional torture designed to keep the enslaved workforce compliant and cowed. Historians have recorded a litany of destructive behaviors enacted upon the enslaved by white enslavers done in the name of security and prosperity (Thomas 2013: 37). For example, in the aftermath of the 1736 Conspiracy in Antigua, 88 enslaved individuals from sixty different properties were executed for their alleged participation in the plot: five were broken on the wheel, six gibbeted alive, and 77 were burned at the stake (*A Genuine Narrative* 1972; Gaspar 1985). The island wide nature of this particular conspiracy shook the plantation elite's confidence in how enslaved persons were kept subservient. Widespread popular uprisings were relatively rare. Nevertheless, minor infractions by enslaved persons were seen as precursors to larger, and more dangerous rebellions. Resistance had to be quelled, and the white plantation population developed laws, technologies, and regimes aimed at preventing their own financial and personal demise at the hands of resistive enslaved Africans. Historians, then, add the sum total of these experiences to develop a framework from which to understand how the society at large operated.

Archaeology, rooted in material culture, operates at a broader resolution with fewer individual connections to the violent systems and have developed nuanced interpretations of the structural developments, manifest in artifacts, features and landscapes, which impacted the daily lives of populations. With few written sources by enslaved persons available for study, the historical lives of enslaved persons are filtered through elite white voices. Archaeology, however, can directly engage with the material lives enslaved persons lived, including how they resisted their enslavement. Enslaved persons practiced a wide range of resistant behaviors. Enslaved persons “planned and incited revolts, assaulted and murdered their owners, and even took their own lives. They also engaged in more subtle forms of protest on a daily basis, such as work slowdowns, feigned illness, pilfering, or other actions that did not free them from slavery,

but possibly helped them cope,” (Singleton 2015: 189). As plantation owners holding hundreds of individuals as property resistance of any kind threatened the productivity and profitability of the enterprise, making security incumbent necessary.

Resistance was a major part of the daily existence of enslaved persons, whether it was through overt, violent acts such as murder, robbery or burning cane, or for more subtle acts, such as stealing, absenting from work, or sabotaging tools. For the former, there is direct historical evidence for these acts in Antigua, leading to the arrest, conviction and execution of the individuals involved.<sup>3</sup> In the latter case, however, direct evidence is more difficult to ascertain. Theresa Singleton (2015: 190-191) agrees, arguing in support of archaeologies of resistance as an important field for adding context to the lives of enslaved persons, but notes that on a plantation scale, “it is often difficult to demonstrate how artifacts or artifact contexts are suggestive of resistance.” Terrence Weik (2012: 30-31), recognizing the limitations of the archaeological and historical record to produce evidence directly correlating to resistance, suggests instead that a landscape based approach might reveal more, concluding that, “concealment was a primary means of resistance during slavery.”<sup>4</sup> Landscapes offer an opportunity to develop the daily lives and practices of groups of enslaved persons, and how persons manipulated the structures set in place by the white plantation elite to resist their

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<sup>3</sup> According to the Antigua Assembly minutes, between 1678 and 1775 there were at least 52 enslaved individuals executed for murder, 25 for robbery, and 7 for arson.

<sup>4</sup> As evidence for concealment in the landscape, Weik discusses cached goods—small hoards of materials including broken tools and food storage which are located in spaces which were historically not under the direct gaze of a plantation supervisor, and therefore hidden from view. Weik argues that these spaces were purposefully chosen for their concealment properties and argues that landscapes should be specifically interrogated to locate these spots. Other archaeologists have noted similar caching behavior in a number of different settings where a subaltern individual intended to hide specific behaviors from an overseeing authority (e.g. Beaudry et al. 1991; Smith 2005; see also Fesler 2004: 280; Gillings 2005; Kelso 1984: 201; Laffoon et al. 2018; Randle 2011).

enslavement. To study this, the most potent and widely used concept developed in Caribbean historical archaeology is the pervasive and intrusive technology of surveillance.

### **Surveillance and Caribbean Plantations**

Surveillance is the predominant landscape paradigm in plantation studies in the Caribbean. It is largely derived from Michel Foucault's (1975) seminal work *Discipline and Punish*, which examined the changing politics and cultural values of condign punishment and the birth of the modern prison system. Foucault's thesis revolves around the idea that culturally, the western world shifted the punishment from the body of the criminal to instill discipline, to a punishment of the soul. Disciplining the soul required a series of cultural and procedural changes where the crime and punishment were separated from the individual's actions against another, and rather situated in a more abstract idea of a crime against society. Thus, bodily punishments and public displays were no longer appropriate, as the crime was internalized by the individual, rather than an aspect of a manifestation of a physical defect. The latter aspects of his argument, the shift from bodily punishment to punishing the soul, is largely left out of surveillance studies. Scholars have recognized, however, that plantation owners and overseers were adept at punishing the bodies and souls of enslaved Africans (e.g. Brown 2003; 2008). One of the key mechanisms for instilling punishment on the soul was the development of forced self-disciplining: establishing a system of surveillance whereby an individual modulates their own behavior expecting that they are being watched, whether they are under surveillance or not. Foucault identified the origins of this ideology in seventeenth and eighteenth-century Europe, an ideology that culminated in Jeremy Bentham's *Panopticon*: a prison design where inmates were acutely aware that they *could* be observed at all times, and thus self-disciplined themselves to avoid the social pressures associated with deviant behaviors, regardless of whether a guard was visible, or even watching.

Bentham's prison was circular, with every cell oriented towards a centralized watchtower in which guards could peer out, but prisoners could not see in, creating an omnipresent coercive control where no actions could take place in invisible spaces. Called the "technology of power perpetrated by the dominant classes," (Gomez Romero 2002: 403) surveillance is the ability for a master to be in constant visual control in order to punish minor infractions in the hopes to mitigate major ones and is a key approach to theorizing how plantation societies are organized in anthropological archaeology. The underlying theoretical structures of surveillance and self-discipline developed by Foucault has been successfully adapted for plantation contexts, especially in the historic Caribbean.

The principle of panopticon, while used as a disciplining discourse, has more often been a heuristic device in plantation studies to get at questions of agency, resistance, rebellion and the construction of social lives by enslaved persons in the face of violence and coercion. As surveillance is assumed to be a major part of plantation planning and creation, by locating those spaces that are not under constant surveillance, and thus are "hidden", historical archaeologists can study and interpret the evidence of those spaces as places for unfettered identity creation and expression in ways which were impossible in the open. Individuality and cultural continuity were explored, modified and adapted for local consumption in these invisible spaces, but also for creating new ways of expression allowing enslaved people to signal each other in the open without exposing themselves (Armstrong 1990; Delle 2014; Bates 2016; Hauser 2008; Smith 2005; see also Fesler 2004: 280; Kelso 1984: 201; Laffoon et al. 2018; Weik 2012). This is also where "Africanisms" evolved as individuals from vastly different cultural groups and regions were thrown together with creole individuals of African descent who could co-create new common cultural practices and ideas, expressed through the material culture away from the

prying eyes of whites (e.g. Ferguson 1992; see also Thomas 2013: 33). For their part, whites discussed and feared these expressions and went to great lengths to try and stymie some of these practices, banning congregations, drumming, dancing and many other cultural expressions, often to limited success (e.g. Delle 2014; Gaspar 1985: 230-236; Smith 2005). Identifying spaces which were rendered invisible by terrain or built features in the landscape offer spaces in which to locate areas where these illicit cultural practices could be maintained, further developed, and flourish.

Whereas the archaeologies of resistance employ landscape studies of surveillance and control to reveal hidden spaces to better interpret the lives of enslaved persons, there is a secondary literature which uses the same principles of internal security to understand plantation organization from the perspective of the enslaver. Rather than reifying positions of power, this literature interrogates the motivations behind how changing social ideologies and technological advancements are incorporated into the plantation infrastructure (Armstrong 2011: 88; see also Armstrong and Kelly 2000; Delle 1998; 1999; 2011; 2016: 111; Hicks 2007; Singleton 2015a; 2015b). For instance, Lynsey Bates (2015), using quantitative GIS methods, compared and contrasted two historic plantation maps, one from Jamaica and one from Nevis, for their efficiency of sugar production as well as surveillance in order to determine what drove the plantation planning process. Her results show that other than the immediate sugar works—the mill, boiling house, curing house and distillery—effective surveillance did not extend across the majority of the plantation. Indeed, by her estimation, the slave villages and primary pathways of movement across the plantationscape were almost entirely outside of the visibility of the plantation great house or the managers house. Her conclusion is that “plantation owners had another immediate goal in mind—namely, profit—rather than the unconditional control of



subjugated people as in the Foucauldian prison,” (Bates 2015: 134). Rather than continual observation, Bates suggests that placement of slave villages was meant to minimize travel distances, with the entire production focusing on extraction. Bates goes on to suggest that this gives an even greater significance to interpretations of hidden spaces, as places for cultural expression and resistance (2015: 135). As an alternative, Bates questions the usefulness of surveillance as an analytical device for understanding plantationscapes, and suggests that plantation owners deployed other, and perhaps more effective, tools of suppression over their enslaved populations.

Plantation organization, and specifically how spaces were used within a plantation, reflects the tense, violent relationship between the enslaver and the enslaved. Following Hegel’s (1977 [1807]) Master-Slave Dialectic, how a plantation is constructed is partially due to maximizing security over the enslaved labor population (Clement 1997). Spaces sought out by the enslaved persons conducting engaging in illicit behaviors are those which are invisible to the planter. The plantation, as a dynamic space, is then changed in order to encompass previously hidden spaces, and the process repeats itself. Studies of surveillance, however, are largely confined to an individual plantation scale, with few studies attempting to look at an island wide scale (e.g. A. Armstrong 2014 in Barbados).

#### *Surveillance Technologies in Antigua*

In Antigua, demographics played a major role in the inability of whites to surveil the enslaved population. As discussed, enslaved Africans significantly outnumbered whites by the end of the 1670s, and by 1707, more than 80% of the population was enslaved. The population of white military aged men between 15 and 60, the part of the population tasked through their militia duties to maintain control over the enslaved population, was never larger than 1,400 in the 1720s

and 1730s. By 1782, the militia only enrolled 800 men, with an enslaved population number over 30,000 (Table 5.1). This left fewer people to patrol the island and engage in surveillance.<sup>5</sup> Off the plantation, the movements of enslaved people participating in the local economy or traveling for social gatherings such as Sunday Market or Saturday night festivities, were difficult to control (Hauser 2008; Waters, forthcoming). Natasha Lightfoot sets Antigua aside from the larger, more well-known slave societies such as Jamaica, Barbados, and Saint-Domingue,<sup>6</sup> as a case study in which the white elites were “cognizant of their own inability to regulate slave’s activities beyond work, tacitly accepted the everyday transgressions slave regularly committed in their socializing about the town and frequent movement between town and countryside,” (Lightfoot 2015: 22). Indeed, she sees a trend where the surveillance state set up in the early eighteenth century receded drastically with the demographic imbalances by the end of the century (2015: 23; see also Table 2.1).

*Table 5.1: Proportion of Antigua’s population which was enslaved. The slow growth between 1756 and 1774 is due to an increase in the number of free blacks which accounted for an additional 3% of the population. The increase in this newly identified segment of the population masks the absolute decline in the white population starting in the 1730s.*

<b>Year</b>	<b>Proportion Enslaved</b>
<b>1678</b>	48.48
<b>1707</b>	81.67
<b>1720</b>	83.93
<b>1729</b>	84.69
<b>1734</b>	86.61
<b>1742</b>	87.77
<b>1745</b>	88.70
<b>1756</b>	90.21
<b>1774</b>	90.82

<sup>5</sup> This is especially true given that the militia was only called out once a month for training and during alarms. At best, it was a passive instrument, further reducing its effectiveness as a surveilling force. A police force was first established after emancipation in 1834 (Dyde 2000).

<sup>6</sup> Mark Hauser’s *An Archaeology of Black Markets* (2008) contests this point in his description of the informal markets which flourished in Jamaica as a ready source of economic exchange and the production and trading of surplus items on the margins of the plantation system, although the demographic imbalance was not nearly as stark as it was in Antigua.

Natasha Lightfoot's work is concerned with emancipation and the transition to freedom for Antigua's enslaved population. Her observation about the free movement of enslaved peoples across the island remains true for the eighteenth century as well, where numerous comments about the unrestrained movement of enslaved persons were recorded in the Assembly records.<sup>7</sup> Control over its enslaved population by the elites "in between" plantation spaces (Hauser 2008: 37) across much of Antigua's history seems tenuous, questioning assumptions about a pan-island surveillance system based, or at least somewhat reliant on, Antigua's martial landscape and fortification network. This phenomenon seems even to hold across the Lesser Antilles, where enslaved populations vastly outnumbered free populations, and some planters owned land on multiple islands (e.g. Dator 2015).

To better understand the trajectory of internal security in Antigua, we need to understand the Prince Klass (or King Court) Slave Conspiracy. In 1736, a group of enslaved persons were accused and executed for their role in planning and conspiring to overthrow the white population and create a black state. 88 individuals were executed in a rash of accusations and trials spanning the end of 1736/37, and a further dozen or so informants were banished from the island. The context, results and aftermath of the conspiracy have been exhaustively debated, notably by

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<sup>7</sup> Lightfoot disagrees with this assessment, citing the lower white to enslaved ratio as the reason, thus allowing for "brute force" to maintain the early and profitable plantation system—three factors which she sees as changing by the nineteenth century (2015: 23). First, the demographic imbalance reached her cited 1:18 ratio by 1740, if not earlier and was in decline by the nineteenth century. Second, her numbers only take the enumerated population and do not include the increased militarization of Antigua starting in the 1780s which would have significantly increased the number of white military aged and trained men on the island. For instance, Weaver (2002) estimates that at any given time during the French Revolutionary and Napoleonic Wars there were up to 3000 sailors stationed at English Harbour who were not included in the census records, although this number likely fluctuated widely based on the number of ships in port and the condition of the crews who were often stricken by disease (Crewe 1993). Buckley (1979; 1998) and Nicholson (1994) both discuss the rapid militarization at Shirley Heights and the Regiments who served there. The last Regiment left Antigua in the 1850s (Callum 2014; Nicholson 1994).

David Berry Gaspar's seminal monograph (1985), as well as reexamined by several scholars since then (Gaspar 1979; 1984; 1985; Sharples 2012; 2015). Whereas consensus on the scope and existence of an actual plot has stymied scholars, the discussants all agree that the surveillance apparatus set in place to control the enslaved population failed, and the widespread violence unleashed against those accused of conspiracy following discovery constituted an attempt to regain control of the island. The discussions by the Antigua Assembly in the years leading up to the Conspiracy are full of anecdotes related to the unrestricted movement of their enslaved population. In 1732, the Assembly attempted to control an outbreak of "black scurvy," spread because "many Negroes infected with the disease are daily travelling about the Island to the great danger and terror of the Inhabitants," (NAAB 332: 381-381). In October of 1736, just days before the Conspiracy became public, a report that "two or three Negroes were caught in the night coming into the [Monk's Hill] Fort, arm'd with Cutlances, and this where is the Grand Magazine of the Island, now almost full of Powder, and the only Arsenal of small arms for our Defense," (NAAB 323: 20 October 1736). Sharples (2012: 40), suggests that the reaction by the white elites to this conspiracy was a combination of "white fantasy and black confirmation;" a reflexive situation where white conception of "elaborate doomsday scenarios," were fueled by black confessions under torture, violence and incarceration. In this particular case, Antiguan planters situated their own fears of insurrection within the wider context of a rebellion on St. John in 1733, and conspiracies uncovered on New Providence in the Bahamas in 1734, as well as an earlier conspiracy in Antigua in the 1720s (Gaspar 1985; Sharples 2006: 38-39).

As one of the documented mechanisms for control, the Antigua government tried legislating restrictions against the free movement of enslaved people, requiring a system of passes. Dozens of laws passed across the eighteenth century restricted the movements of, and

ascribed and confirmed punishments for enslaved persons moving about the landscape without explicit permission (see Gaspar 1985: 145-147; Hauser 2008; Higman 2001; Mintz 1983: 116). This long list represents, perhaps, the difficulties in maintaining the necessary surveillance pressures off the plantation which Lightfoot alludes to above, with the constant, shifting demographics exacerbated by historical contingencies which put pressure on the islands' population. At 108 square miles, Antigua did not have a hinterland to support enslaved maroon communities by the 1750s, with every arable acre under cultivation (Dyde 2000: 85), and getting off the island was difficult.<sup>8</sup> It is in this environment in which Antigua's fortifications were located. Given that one of the purposes of Antigua's fortifications was to monitor the sea for enemies, it is necessary to consider whether the men serving at these fortifications could also have provided surveillance over Antigua's enslaved populations. Using the same underlying principles of surveillance developed for plantations, I examined the applicability and appropriateness of Antigua's fortifications in contributing to an internal security apparatus on an island-wide scale.

### *Fortification in Service of Surveillance*

One of the reasons why a panopticon can be effectively argued for in a plantation setting is the centrality of the sugar works and its topographical location usually set on top of a hill or small elevation gain, thereby giving the impression of dominance over the landscape. Windmills, a central feature of Antigua's sugar economy, were built on top of hills, where they occupied

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<sup>8</sup> There are a few examples of enslaved men executed by the Antiguan government for stealing vessels or using the Royal Navy to escape Antigua (e.g. CO 9/20: 13 February 1749; CO 9/24: 19 September 1759). Using the Navy to escape became so pervasive that in 1783, the Antiguan legislature wrote a letter to the Admiralty, threatening to prosecute any navy officer caught assisting enslaved persons flee the island, reminding the Admiralty that helping an enslaved person escape was a major property crime, punishable by death, and without appeal (CO 9/41: 24 September 1783). Elsewhere, see Dator 2015, for an example of an enslaved man escaping from Nevis to Jamaica.

spaces that offered unencumbered views of the surrounding plantationscape (Davis 2016; Waters and Tricarico 2018).<sup>9</sup> This observational advantage is then applied to the master-slave dialectic: the need for a white plantation owner to maintain control over his enslaved African labor force, and more coercively, the self-surveillance enslaved Africans undertook under the ever present threat of being discretely observed, to explain plantation layouts in terms of surveillance.

Applying Bocinski's (2015) model<sup>10</sup> to Antigua's fortifications does show a statistically significant larger defensibility measure than over the windmills and the landscape as a whole, the spatial distribution of the fortifications on the periphery of the island suggests that internal surveillance was not considered a priority.<sup>11</sup> All of Antigua's fortifications, excepting Great Fort George on Monk's Hill and a battery on Drew's Hill,<sup>12</sup> were located within 100 yards of the coastline, spatially occupying the edges of the sugar plantation system. The center of the island, on the other hand, was devoid of any publicly funded watchtowers or fortifications. Barbados, for instance, commissioned a series of watchtowers after the 1816 Bussa's Rebellion explicitly to prevent arson in the cane fields and the resulting fires from spreading (A. Armstrong 2014). The closest analog appearing in Antigua was a system of signal stations established during the American Revolution designed to facilitate spreading alarms when French vessels were sighted

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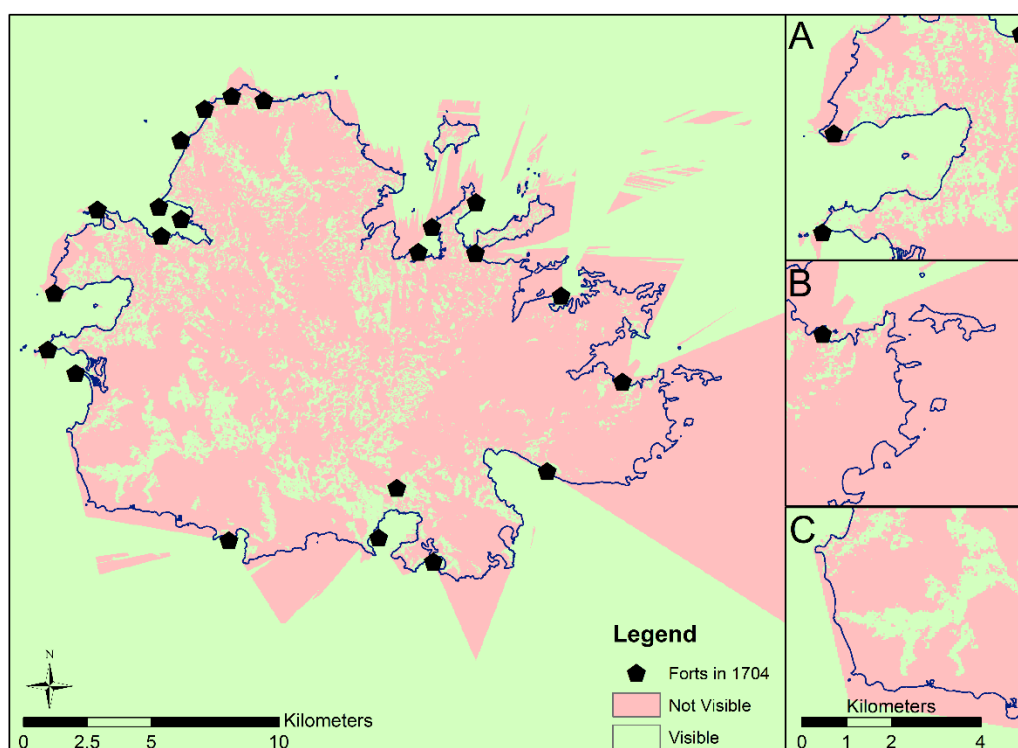
<sup>9</sup> It should be noted that this may be a conflationary variable as windmills require an uninterrupted supply of breeze to operate in, and therefore are largely set on the tops of hills so that they can take advantage of the wind from every direction.

<sup>10</sup> See Chapter 3 and Appendix B.

<sup>11</sup> The difference in the defensibility index scores largely has to do with the high index scores of the ocean (0.75) which drive up the index scores of tiles in close proximity to the sea. See Appendix B for a fuller explanation.

<sup>12</sup> Great George Fort was somewhat inland and served as the island's citadel (see Chapter 2). Drew's Hill was a small battery set somewhere to the southeast of St. John's Town, likely on the hill where the Antigua State College currently is. No trace of this battery has been found archaeologically. Historically, it was a one-gun battery whose primary purpose seems to have been for signaling, rather than providing an armed defensive position (CO 9/2 3 May 1712; CO 152/18/T99). In 1712, the fortification had a small alarm gun, and in 1729 it was armed with one dismantled, unserviceable 4-pounder. Drew's Hill reappears in 1778 as one of the signal stations, and the only one armed with a signal gun, a 4-pounder (NAAB 329: 3 September 1778).

(NAAB 329: 3 September 1778). While this signaling network did incorporate many of Antigua’s forts and guard houses, several prominent windmills in the center of the island were also incorporated into the signaling network as well. But, these sites were not armed by the public and there are no records of them being entrenched. Rather, Luffman comments that “signals are hoisted on the appearance of one or more square rigged vessels, which, in war time, are immediately answered by distant signals, and the whole islands is alarmed in a few minutes,” (Luffman 1788: Letter VIII). Even here, the emphasis is on the external threat facing the island. Indeed, nowhere within the legislative minutes is there a discussion of internal security from an island wide perspective beyond legislation laying out the rights and responsibilities of slave owners.



*Figure 5.1: Cumulative 1704 fortification viewshed. Inset A) shows Five Island’s Harbour, B) shows the east coast from the entrance to Muddy Bay and C) shows the coast between Ffry’s and Carlisle Bay in St. Mary’s Parish. Illustration by Christopher K. Waters.*

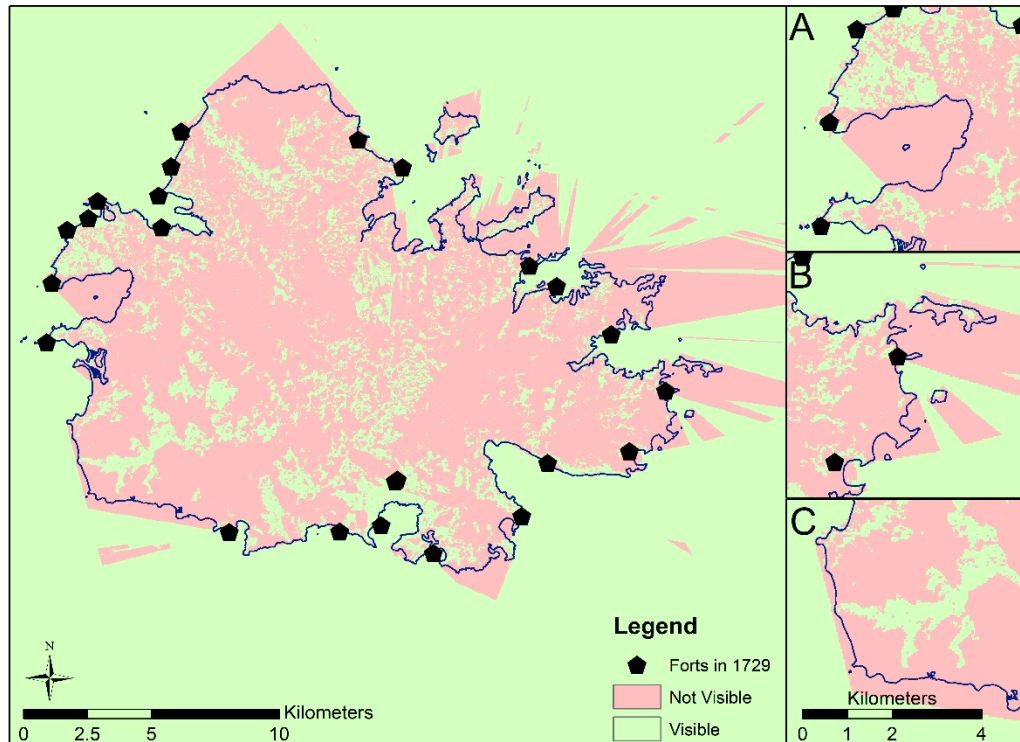


Figure 5.2: Cumulative 1729 fortification viewshed. Inset A) shows Five Island's Harbour, B) shows the east coast from the entrance to Muddy Bay and C) shows the coast between Ffry's and Carlisle Bay in St. Mary's Parish. Illustration by Christopher K. Waters.

Viewsheds are a method of calculating areas which are visible from specific points on the landscape in GIS. These have been used in mapping plantations and other sites where coercive surveillance techniques were implemented to control people. Applying the same technique to Antigua's fortifications offers a representation, reinforced by observation, on what was visible from these sites. This is assuming that defensive sites required clear sightlines in order to determine incoming threats.

Applying viewsheds to known constellations of fortifications across the eighteenth century reveals two distinct results. First, the positions of these defenses were well suited for observing the water around Antigua (Figure 5.1). This finding is consistent with the political decisions to create a fortification system aimed at preventing outsiders from arriving, and



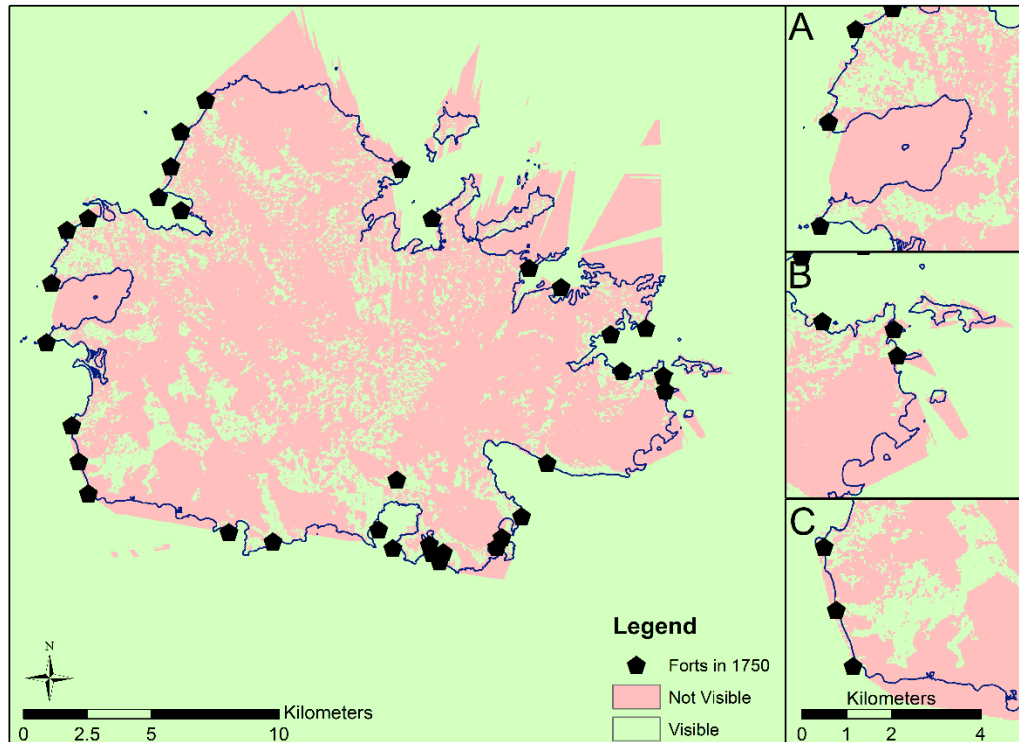


Figure 5.3: Cumulative 1750 fortification viewshed. Inset A) shows Five Island's Harbour, B) shows the east coast from the entrance to Muddy Bay and C) shows the coast between Ffry's and Carlisle Bay in St. Mary's Parish. Illustration by Christopher K. Waters.

reinforced with the constant mentions of alarms being triggered by vessel sightings.<sup>13</sup> By 1729, almost the entire coastline was under surveillance (Figure 5.2). The effectiveness of this outward facing surveillance is borne out by the fact that the expansion of fortification in the 1740s had little impact on expanding this viewshed, with only minor improvements along the St. Mary's coastline between Pearne's Point and Old Road (Figure 5.3 and 5.4). Indeed, in terms of external defense, the vulnerable coastlines would have been well surveilled throughout Antigua's history.

In terms of internal surveillance, however, it is evident that almost all of Antigua's fortifications did not provide vantage points over the interior of the island, and most of the island

<sup>13</sup> The threshold for triggering an alarm was revised upwards in the course of the 1700s, possibly because alarms were triggered too often (e.g. NAAB 324: 6 December 1743; NAAB 324: 11 July 1745).

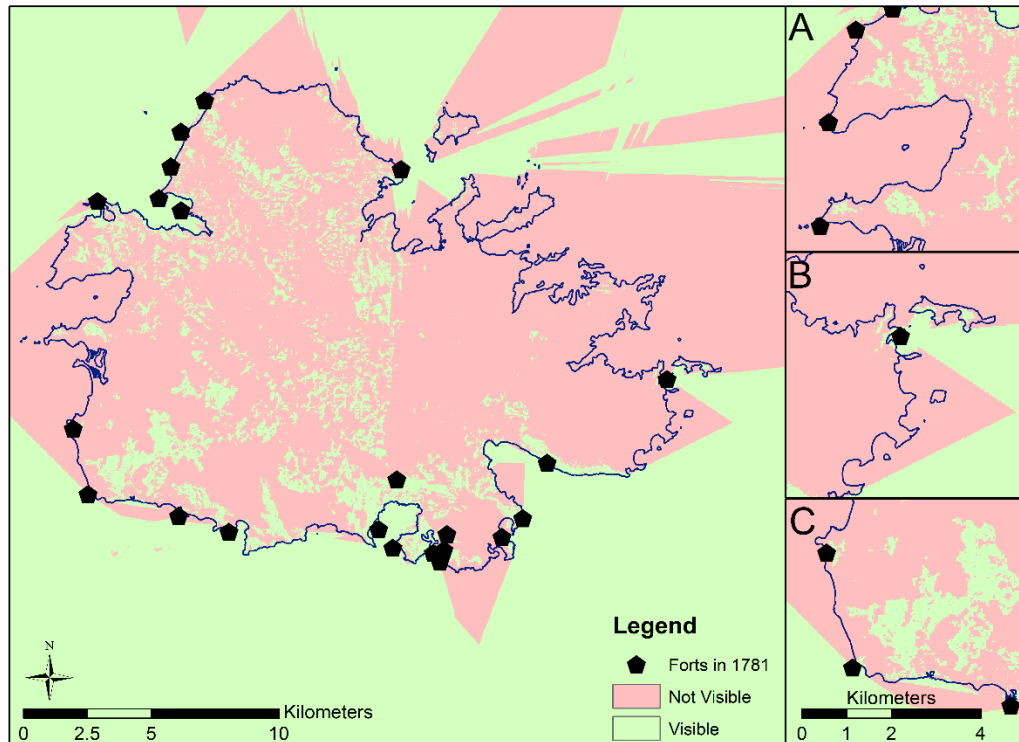


Figure 5.4: Cumulative 1781 fortification viewshed. Inset A) shows Five Island's Harbour, B) shows the east coast from the entrance to Muddy Bay and C) shows the coast between Ffry's and Carlisle Bay in St. Mary's Parish. Illustration by Christopher K. Waters.

would have been out of sight of the occupants. The inward gaze is even less impressive when considering that during the sugarcane growing cycle, stalks could stand over ten feet high, further obscuring any human activity. Aaron Thomas recorded his observations on the height of mature cane in Antigua, writing, "In Riding alongside the Sugar Canes this, day, I found that the Sugar Canes were generally about 3 feet higher then my head, when Riding on Horseback," (Thomas 1799: 221). What this demonstrates, however, is that the purposeful gaze desired from this fortification was not oriented inwards, and therefore not intentionally designed for internal surveillance.

The purpose of this investigation, of course, is to study intent: what were the underlying policies and agendas of the island's legislature in the spatial arrangement of Antigua's fortifications? Whereas there was a stated interest in developing Antigua's fortifications for

external defense, the equivalent debate about the state's role in providing internal surveillance using the fortification network never materialized. Cognizant of the fact that the official archives only offer official intent, the men ordering the construction of Antigua's defenses may have assumed that internal security through surveillance was part of the role of the fortifications. However, the spatial distribution of the island's defenses, as manifestations of policy, suggests that internal surveillance was not a consideration, nor part of the mission of these fortifications. Surveillance, however, was only a single facet of conducting internal security. Just as with the external defense tests, perhaps the placement, construction and garrisons of individual fortifications, driven by elite interest, manifest individual attributes which could contribute to greater internal security.

### **Fortifications as Loci for Internal Control**

Colonial fortifications have been interpreted as an extension of European state power over colonized populations, creating loci of power directed from metropolitan centers, and designed to be "utterly international in their architecture, engineering and even social aspects," (Sarmiento 2011: 5). Ann Stoler (2008: 200-201), suggests that scholars focusing on decolonizing narratives in colonial ruins (e.g. fortifications, great houses, ports, slums, etc.) look to the ways in which the colonizing power deliberately carved out and maintained difference from the colonized through, "the breadth of corridors in which people can move, the virtual barriers by which they were cordoned off, the kinds of infrastructure to which they have access, and the preemptive racialized exclusions and exemptions in which they live." Fortifications in colonial settings were designed to create the impression of social distance, while maintaining physical nearness. Controlling which bodies went where, and how they moved across the landscape, became a key function in imposing control and projecting messages of exclusion and dominance through these

architectural principles (e.g. Dietler 2010: 89-91; Johnson 1999; 2002; Pezzarossi 2018: 290; Wilson 2018).

Social exclusion through fortification architecture in colonial contexts has been used successfully by historians, geographers, and archaeologists in different ways. Ingram (2012), notes that Native American and British interactions in fortifications in the North American backcountry fostered cooperation, especially in trade, however, the identities were largely maintained and kept separate through distance, but also diet, living spaces and occupations. Voss (2008), in her study of the San Francisco Presidio, claims the adobe walls of that fortification created the necessary separation in order to foster the cultural transformation of the garrison community from low ranking *casta* members from the American South West, into the new *Californios* identity. This strict delimitation of cultural spheres provided the necessary space in which new identities could be forged away from the colonized Native American population. Elsewhere, Beck, Moore, and Rodning (2016), demonstrate how Spanish soldiers maintained their cultural identities through fortification and housing architecture, separating themselves from the Native American communities in which they were embedded in at Fort San Juan in North Carolina in the sixteenth century. Other examples of colonial encounters at or around fortifications report architectural and material culture separation as well as limited adoption, suggesting a maintenance of septate cultural identities (e.g. Babits and Gandulla ed. 2013; DeCorse 2001; DeCorse and Beier 2018; Kelso 2007; Klingelhoffer ed. 2010; Lightfoot et al. 1998; Phippen 2018; Starbuck 2010; 2011; 2018; see also Silliman 2005; Liebmann and Rizvi 2008).

The degree of separation that military sites can create in colonial contexts, then, is a proximal indicator for the relationship between the colonizer and colonized. This relationship is

contingent on the temporal trends and spatial distance that the colonizing forces garrisoned in these communities found themselves. Through a careful investigation of visibility, architecture and composition of fortification communities, then, we should be able to approximate the priorities of those persons designing and developing these sites, and what messages they wish to convey to the subaltern populations these fortifications are situated. Combining the established need for an internal security apparatus with discussions of fortifications as loci of exchange and community, but also separation and maintenance of control, we are able to assess what role Antigua's fortifications played in the internal security of the island in the seventeenth and eighteenth centuries.

Placing Antigua's fortifications within the context of a plantation society reliant on an enslaved labor population which outnumbered the white population 19 to 1, and terrorized by violence and coercion, lets us examine their role in the maintenance of security. To effectively consider whether Antigua's defenses were intentionally incorporated into a broader landscape schema of internal security, we have to define the appropriate variables through which to analyze the question. Drawing on the confluence of literature derived from colonial and postcolonial approaches situating military sites as loci of colonial oppression, both physically and symbolically, as well as studies of the internal mechanisms and technologies used to surveil plantations, Antigua's fortifications will be considered on three aspects: ability to effectively surveil the interior, interpreting the architectural features for their symbolic and physical ability to enact terror into the interior, and the degree of separation between the free and white populations, and the enslaved and black populations at these sites.

### *Architectural Decisions*

The architecture of a fortified site offers additional information about the intended message it is meant to convey. The walls, cannon, and imperial symbols vested in soldiers' uniforms and flags are seen as reminders of the violent potential colonial powers can impose over a subjected population (e.g. Sarmiento 2011). Fortifications are loci of this potential: concentrated areas of force and violence. There is a certain degree of truth to these interpretations: sites of illicit, illegal or resistant behaviors are mostly outside of direct visual range of these sites, suggesting that overt resistance is quelled, to some degree, by the mere presence of these sites (Brown 2008). Direct confrontation is rare, and judicious placement of internal security measures does provide a visual reminder of the imbalance of power between those with the guns, and those who are forced to live under them. This is not to say that these methods are effective in controlling a population, but rather those behaviors deemed resistant are pushed to the boundaries of the security system. There are several archaeological investigations demonstrating the presence (or absence) of internal security which document this effect, including at industrial sites (Beaudry 1989; McGuire 2008), plantations (Delle 1998; 2016; Higman 2001; Singleton 2015), defensive settlements (Arkush 2011; LeBlanc 1999), colonial and state landscapes (Gonzalez-Ruibal 2014; Leone 2005; Leone et al. 2005) and prisons and institutions (Conlin Casella 2007).

Directionality is an important consideration in fortification architecture. By this, I mean which way (read: at whom) is violence and coercion projected? At prisons, institutions, and industrial sites, the directionality is inward: the purpose of the internal security is to monitor the population contained within the boundaries of the property. Security measures are arranged along the perimeters, designed to keep people inside established boundaries. Violating those boundaries are meant to be difficult and dangerous enough to deter most, and create a legal and

physical framework whereby guards are allowed additional measures and force to stop those violating the boundaries in the name of security representing an escalation of violence. People walking near a wall may be watched: people attempting to climb a wall are liable to be shot. Military sites, but also plantations and other colonial and state landscapes, on the other hand, direct their attention outward: monitoring sites are concentrated loci of power radiating out over the landscape (see McCool 2017). Here, directionality is more complicated. For instance, there are practical defensive considerations. Certain parts of a fortified site may be more vulnerable than others and require additional defensive features, including additional rings of walls or deeper ditches. Elsewhere, a site may be all but unapproachable, and defensive structures might be under engineered or simply not exist. A work may also have creative additions to signal invulnerability, perhaps masking an inadequately protected part of the wall. Additionally, in interpreting a historic site, an uncritical assumption of what constitutes an adequate defensive structure, may not have any bearing on contemporary understandings of defense. Therefore, rather than drawing a circle around one of these sites and argue spheres of influence, focusing on the architecture and position of each site lends new views of what those sites mean in context. Matthew Johnson (2002: 179-180), identifies the weaknesses of modern assumptions in his study of medieval castles in Britain, stating, “what is marked out as ‘military’ in any given castle is often assumed rather than real,” demonstrating how modern concepts of what imposing, impressive, or monumental are rather figments of an imagined reality. Johnson concludes that most late medieval castles were designed to be visually impressive, rather than militarily sound, with careful consideration of vistas, facades, and approaches to maximize the visual, and therefore symbolic, impact of the site. Indeed, for Johnson, castles in the late medieval period were more about signaling elite status and taste to their peers. By carefully examining those

castles from different angles, and being critical of modern assumptions, Johnson cautions anyone investigating purported military sites to carefully evaluate the motivations of the builder and the audience for which these sites are built.

As this is an architectural evaluation of Antigua's fortifications, and how they are constructed to determine to what degree they might have been conceived as part of internal security measures after negating the supposition that they could be used to physically surveil across large swaths of the interior, I am testing two affordances: which way the cannons were facing, and the condition of the defenses facing to landward. These variables test two related things. The first is the measure of which way violence was projected over the landscape. Living under the shadows of cannon, knowing their destructive capability, here, creates separation between those with the guns and those without. The second measure is the physical separation that defenses (e.g. walls, ditches, gates, etc.) create between the colonizers and the colonized. Together, these variables constitute the *presence* of a fortification on the landscape; this is the measure of the unspoken messages telegraphed by the imposition of a fortified site built within, and over, a community.

As seen in previous chapters, Antigua's fortifications were part of a local vernacular: local interpretations of what fortifications should look like. However, without the military engineering background to afford them the best protection and defensive capabilities. Whereas Vauban, Coehoorn, and the other established military engineers of the seventeenth and eighteenth century demanded a holistic defense without any blind spots, the island's elites showed little inclination in their designs to accommodate these theories. In relation to the established fortification theory, which David Orr (2010: 10) suggests was adopted and adapted



widely in the Americas, Antigua's defenses were incomplete. They faced outwards, over the water, ignoring the fortification imperative to create complete circuits of protection.

From the available archaeological surveys and historical cartography, it is immediately evident that the defensive architecture was aimed outward over the sea, rather than internally. Of the total number of fortifications with a known plan or that are still extant, only two exhibit evidence of a more holistic defense pattern: Fort James and Great George Fort. As the island's place of retreat, Great George Fort required a greater latitude of defensive options, with irregular bastions covering the majority of the fortification. Fort James, as the primary defensive structure protecting St. John's, likewise had significant investment in securing the point. The 1742 expansion greatly increased the size of the fortification, including adding a long sea battery and a

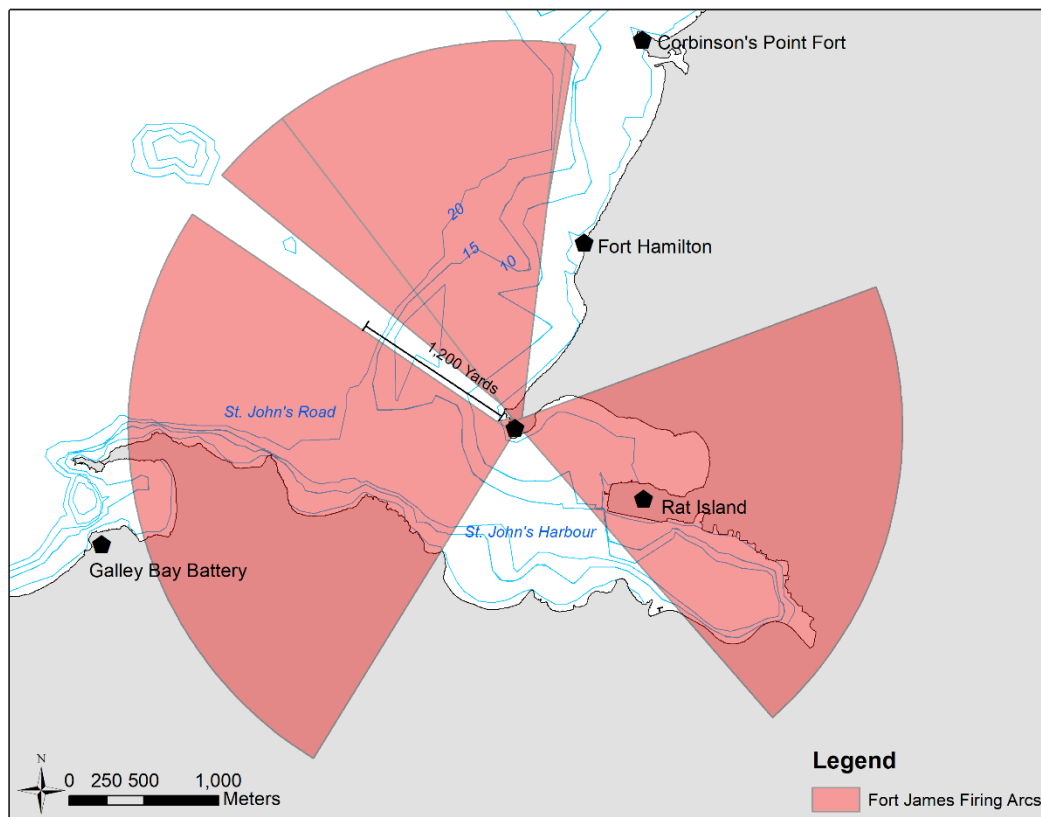


Figure 5.5: Fort James with firing arcs. Note that the layout of the embrasures does not allow for cannon fire to protect the landward approaches. Illustration by Christopher K. Waters.

horn work allowing for greater coverage of St. John's Road (Nicholson 1994: 12). While the fort was completely enclosed, the layout of the embrasures for the cannon indicate that the priorities were still on the sea, with not a single embrasure pointed northwards, up the peninsula and from where a land-based attack would come (Figure 5.5).

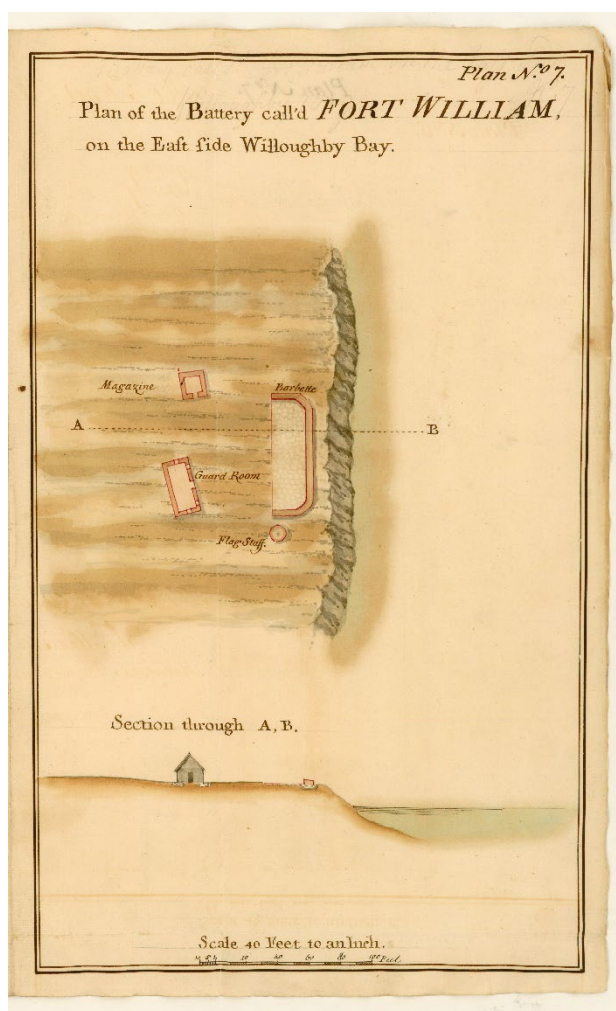


Figure 5.6: Figure 5.6: Fort William by Kane William Horneck (1752). Note the parapet facing the ocean and the lack of landward defenses. Courtesy of the John Carter Brown Library.

Every other gun platform on Antigua followed this same pattern: the defenses were oriented towards a maritime enemy. Not a single cannon faced inland. Otherwise stated, the fortifications did not exhibit a strong ability to project violence inland, and thereby, could not

rely on the symbolic potency of life under the shadows of cannon to add a chilling effect on attempted rebellion (Figure 5.6 and 5.7).

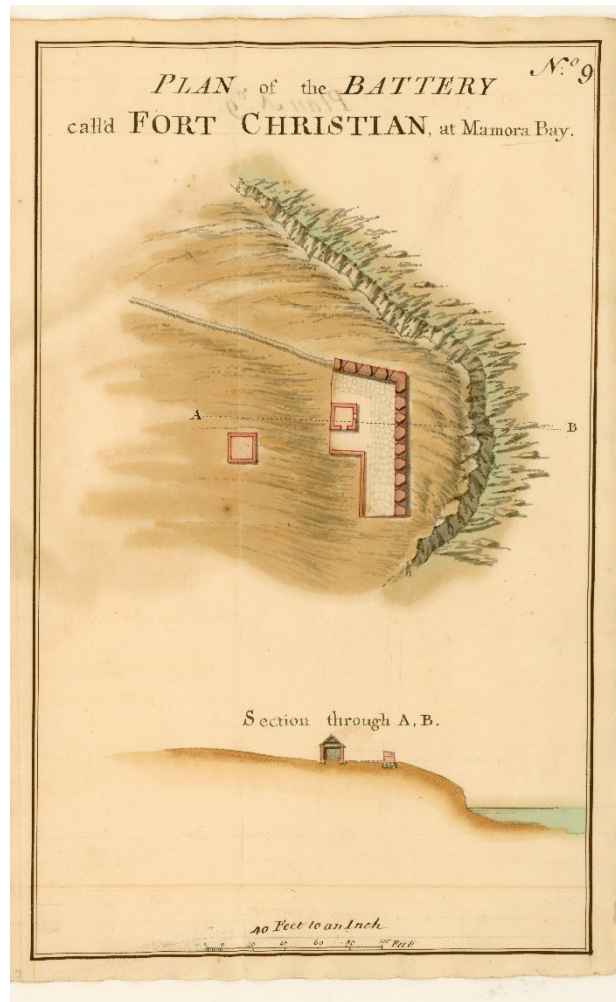


Figure 5.7: *Fort Christian* by Kane William Horneck (1752). Courtesy of the John Carter Brown Library.

The second aspect to intention in directionality is the means used to separate those inside the fortification, from those who are outside: specifically, what means were used to protect the warlike stores of these fortifications from “Domestick Enemies,” (NAAB 324: 12 March 1741). Walls and other defensive features are seen as symbolic, just as much as they are physical, barriers, separating one population from another (e.g. DeCorse 2001; Voss 2008). The greater the physical obstacle, the wider the cultural gulf. For instance, Voss sees the thick walls of the

San Francisco Presidio as sheltering the soldiers and their families, and allowing for their ethnogenesis behind the walls, deliberately unseen and separated from the Native American populations around them. Ingram (2012; 5-6), sees this cultural chasm incorporated into the construction of the string of eighteenth century British fortifications along the frontier between European colonies and Native Americans in North America, where Native Americans and British interlocutors negotiated their relationships around the “liminal fort-based worlds.” Palisaded European forts and Native villages were constructed to protect, just as much as they created spaces in which cultural practices, both European and Native American, could be maintained and separated from the prying eyes of the other. The presence of these fortifications is not just defensive, but also serves as a symbolic reminder of cultural separation. This pattern is repeated in a variety of other situations, too (e.g. Beisaw 2009; Mytum and Carr eds. 2013; Singleton 2015).

Except for Monk’s Hill and Fort James (as discussed above), Antigua’s fortifications do not follow this pattern of symbolic separation. Of the sixteen fortifications painted in Horneck’s (1752) collection of watercolors, nine of the batteries are depicted without continuous circuit walls, meaning that they were completely open to landward. Six of these were verified in an archaeological survey, suggesting that between the 1752 survey and eventual abandonment, these fortifications were never augmented, and therefore were not considered a priority.<sup>14</sup> An

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<sup>14</sup> Johnson’ Point Fort had a nearly completed circuit wall, however, its irregular shape and addition of a water catchment below the fort walls placed this in the category of no landward defenses. In addition to the several openings, the walls around the fort were only about 30 centimeters thick, suggesting that they were low, borne out by the cross section on the Horneck image showing the ultimate height terminating below the guard house window. The guard houses depicted on the 1752 Horneck image (Plan No. 13) were torn down sometime in 1779 because they were preventing the cannon from being traversed properly, and replaced with a small gunpowder magazine on the outside of the walls (NAAB 330: 3 December 1778). Again, the focus of this fort was on its ability to project violence over the sea, rather than inward considerations.

additional three fortifications, Fort Hamilton, Fort Byam and Old Road Fort, are depicted with complete circuit walls, however, archaeological surveys of Old Road Fort indicate that the landward facing wall was only chest height and thin (ca. 30 cm). The other two fortifications no longer exist, and verifying their height and thickness archaeologically is impossible. However, Horneck (1752) does include cross sections in all of his images. While the cross section of Fort Byam includes the guard house and the rear wall height is not ascertainable, the image of Fort Hamilton clearly indicates that the walls are neither high, nor thick, with the guard house appearing in the background clearly standing well above the height of the foregrounded back

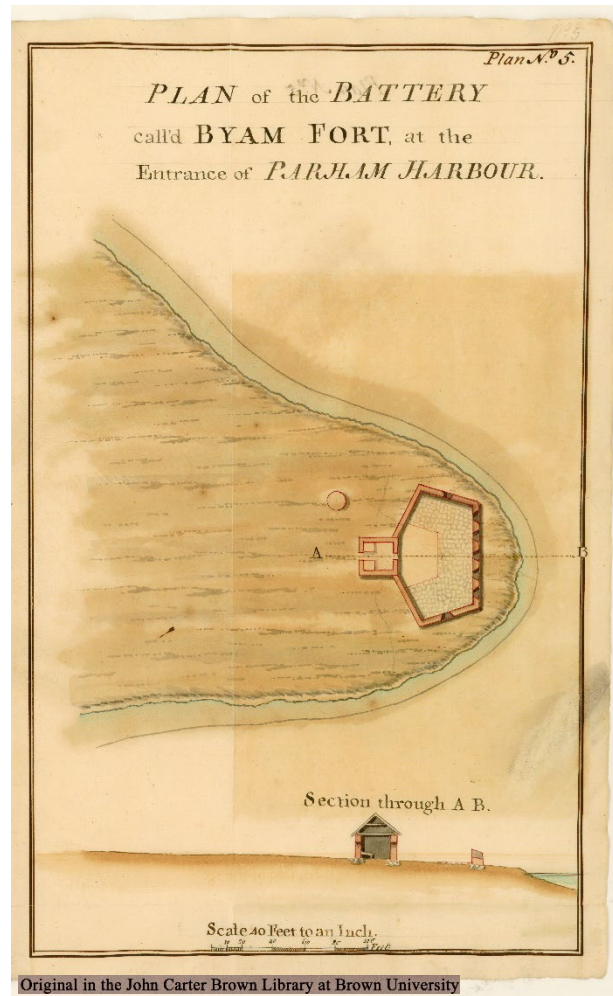
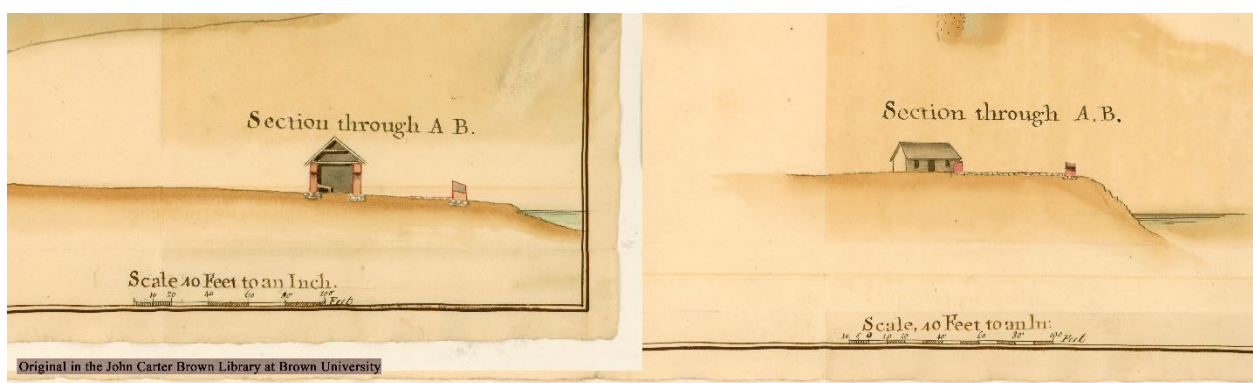


Figure 5.8: Fort Byam by Kane William Horneck (1752). Courtesy of the John Carter Brown Library.

wall (Figure 5.8). While perspective is clearly an issue in this image, it is safe to say that the walls did not reach as high as the eaves of the guard house, and likely reached a maximum height of 1-1.2 meters (Figure 5.9).

While the primary fortifications indicate a mixed approach to landward defense, the guard houses uniformly do not have any defensive features associated with them whatsoever. Other than the small stone structure designed to house an individual tasked with monitoring the sea, there are no ditches, defensive walls, or even gun slits from which someone might be able to establish a defensive position. While the primary purpose of these sites is surveillance, their spatial distribution, scattered along the coastline at relatively regular intervals, and within visual range of the next fortification or guard house along the coastline, shows their intention for detecting approaching vessels, rather than for being turned inward. Indeed, by the mid eighteenth century, most of the guard houses were located in areas not considered prime sugar growing land, and therefore nowhere near the majority of the enslaved population, but rather confined to the edges of the island, along cliffs and other less arable land. Their presence in terms of internal surveillance, then, was negligible (Figure 5.10).



*Figure 5.9: Cross sections of Fort Byam (left) and Fort Hamilton (right). Details from Kane William Horneck (1752). Note the narrow parapets and the orientation towards the water. Courtesy of the John Carter Brown Library.*

Presence, as a measure of the ability to quell resistance of a population, is a commonly used trope in describing official architecture, especially fortifications. In Antigua's case, however, the fortifications were not designed to, and never intended to, provide internal security. Even in the first half of the eighteenth century where a number of maroon communities in the interior of the island were able to mount some armed resistance, the Antiguan legislature never debated investing in surveillance infrastructure in the interior, instead relying on parties of militiamen and armed slaves to go after the runaways (CO 155/1: 14 July 1686/7; CO 9/2: 8 January 1712/13; CO 9/7: 12 October 1730). Forts and Guard Houses were aimed, instead, outward as a warning to other European powers, leaving them largely defenseless from the landward.



*Figure 5.10: Remains of the South Guard House. The building was repurposed and repaired by goat herdsman in the late 20<sup>th</sup> century. Photograph by Christopher K. Waters.*

### *Open Forts and Enslaved Communities*

Physical barriers separating Antigua's gunners and matrosses from the enslaved communities were largely absent at almost all of Antigua's fortifications. With the absence of physical barriers creating a separation between free and enslaved, white and black, were Antigua's fortifications used for internal security? Perhaps the strongest negative evidence suggesting that Antigua's defensive sites served little theoretical or practical aspects for internal security is evidence of mixed race and mixed status communities established within the vicinity and inside the fortification features. Indeed, enslaved Africans helped to man defenses serving as matrosses (CO 9/41: 27 May 1784). Whereas the composition of the communities surrounding and occupying these fortifications are discussed at length in Chapter 6, it is incumbent to note the presence of enslaved Africans and Free Blacks within the garrisons at these fortifications throughout Antigua's history. Peter Voelz (1993), chronicles the many ways in which enslaved Africans were conscripted as soldiers, police, axillaries, militiamen, and pioneers during colonial wars in the western hemisphere (for Antigua see also Buckley 1979; Dyde 1997). In Antigua, enslaved persons fulfilled a number of different roles at the fortifications as builders, laborers, sexual partners, offspring, or enslaved persons legally bound to a white member of the fortification community, as well as active members of the military aspects of the community as matrosses. Free blacks, a smaller proportion of the population, likewise appear in the documentary records as matrosses, serving alongside white gunners and matrosses. Rather than maintaining the separation symbolically implied by colonial military sites, the Antiguan example dramatically collapses the dichotomy between colonizer and colonized in this setting. This is not to say that these relationships were any less violent or coercive, or to imply any kind of racial equality. The regime of terror unleashed by the planter class, and perpetuated by poor whites in



their capacities as overseers and militiamen cannot be understated (Burnard 2015: 27-30). The fortification system in Antigua, however, functioned largely outside of internal security schemes perpetuated by the white elites seeking to maintain their hold over the enslaved population and continue deriving profits from their labor.

## **Conclusion**

In 1736, Governor William Mathew informed the Assembly and Council, “there actually being no more than three Montrosses there nor any Gates to the [Great George] Fort that not long ago two or three Negroes were caught In the night coming into the Fort, arm’d with Cutlaces, and this where is the Grand Magazine of the Island, now almost full of Powder, and the only arsenal of small arms for our Defense,” (NAAB 323: 15 October 1736). Enslaved persons who were previously resident at the fortification, were ordered expelled, including those who might be considered family members of the white matrosses employed at the fortification. Three months and 43 executions later, the official report demanded by the Crown on the Prince Klass conspiracy did not mention this “attack” on Great George Fort, and the incident was forgotten in the rush to discover the wide conspiracy (*A Genuine Narrative* 1972 [1737]; Gaspar 1985; Sharples 2015). Despite this obvious lapse in security by the white plantation elite, Great Fort George was only considered a viable retreat during times of external conflict. William Mathew, only two years before the Conspiracy, wrote, “here the booty the enemy chiefly want, may be kept from them, I mean our negroes, for keeping the heads of negro familys or their children here, the parents will not so readily run into an enemy,” (CO 152/20, f.153). In fact, the only mention of Great George Fort being used as a refuge against an internal slave revolt came from a recorded conversation in Aaron Thomas’ journal in 1799, writing that the citadel was built “as a refuge for Weoman, and Children, in case the Negroes should rise” (Thomas: 27 January 1799).

Nowhere else, least of all in the long deliberations about the merits of that fortification, or any other, does internal security arise in determining defense policy, placement, or construction.

There are two major points which speaks directly to the fortification network occupying neither the role of surveillance, nor hardpoints in an internal security network. The first, is that *only* external threats impacted the fortifications: when external conflict was inevitable, the island's defenses received influxes of capital and equipment. The response to possible slave insurrection, however, materialized differently: the militia was called out bolstered by the garrisoned Regiment of Foot. Indeed, the Antigua Assembly acknowledged the role of the Regiment being a bolster to internal security, commenting "our Intention was to have a number of men Constantly kept on this Island for our Protection, not so much against a Foreign as a Domestick Enemy," (NAAB 324: 6 December 1743). With Regimental soldiers removed from all fortification duty after 1731/32, because it was "absolutely inconsistent with the Duty they are obliged to do in other Cases when Commanded by their Respective officers," it plainly lays out the obligations of the regiment to serve as a reserve force to augment the militia in maintaining order on the island (NAAB 322: 8 February 1731/32).

Internal security did not belong at the fortifications. For the Antiguan government, this was a separate institution strictly focused on external defense. This is not to say that there were no coercive methods put into place to quell resistance, nor does this attempt to reduce the violent methods used to subjugate enslaved Africans. Maintaining control over the enslaved population, in the eyes of the elites, fell to the individual plantation owners, reliant on informants, and supplemented by soldiers and militiamen if necessary. What this does mean, however, is that in context, Antigua's fortifications were, at the time, less symbols of violence over the enslaved

population, than quotidian public works projects intended to disrupt the ability of other European powers from getting close to the island.

## Chapter 6: Peopling the Fortifications

*His Excellency proposed to this Board, as he now does to your House that for a help to the Ignorate Gunners of this Island, for the saving Ammunition by their being taught how to Point their Guns with better Execution a Person sufficiently skilled in the Mathematiks, should be appointed at a set piece for each to be settled with him by the Treasurer to mark on each Gun of this Island*

Antigua Council to the Antigua Assembly, 1 February 1739/40<sup>1</sup>

### Introduction

The previous chapters have focused on the long-term trends of fortification in Antigua, specifically taking a landscape perspective to evaluate the basic premises of defense in colonial Antigua. I examined the fortifications as loci of centrally planned schemes for external defense and internal security, interpreting the materialization of these sites and the social messaging they intended from the perspective of the islands' legislative elites. This chapter inverts this perspective and focuses on the historical and material expressions of the communities which carved out lives at Antigua's fortifications, and how their lives were impacted by, and negotiated within, the martial landscape created around them.

The presence of the individuals that garrisoned the fortifications is faint in the documentary record. Few are named in written sources, and even fewer have any kind of unique identifying descriptors. Rather, in the grand bureaucratic sweep of Antigua's government, gunners and matrosses are reduced to occasional mentions and characterized by their generic faults: generally related to their poor abilities to perform their tasks adequately according to the Assemblymen and Councilors. The archaeological record of these sites in Antigua, to date, has also been largely under researched. These limitations have only reinforced interpretations driven through homogenizing military lenses, located in a grand imperial narrative about battles fought

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<sup>1</sup> NAAB 324: 1 February 1739/40.

in the far-flung empire (e.g. Buckley 1998; Dingwall 2015; Lightfoot 2015: 32; for an exception see Cripps 2004).<sup>2</sup> The previous chapters demonstrate how this narrative is unsustainable recognizing that Antigua’s fortification network was part of a locally driven project, reliant on hiring whomever they could in order to keep warm bodies at these sites. Their physical locations on the island’s periphery and only occasional necessity, rendered them mostly invisible to the political committees established to “view” them on occasion. This invisibility from an official eye allowed the garrison communities to engage in graft, abandon their posts, and cause a variety of headaches for the Antiguan government. They, in turn, issue grand proclamations, vowing to change the culture and add discipline to these fortification sites to better protect the island from an external threat, before their protests faded away as the danger fades and the next financial or social crisis emerges.

It is in these few moments of turmoil, where defense is on the forefront of the Antiguan elite’s minds, that the historical signature of the gunners and matrosses comes to light. These glimpses, filtered through a general disdain at the quality of individual available to serve at these sites, is where we bring in the material culture from these sites to better interpret the lives of these people. This is done in direct contrast to the previous chapters which operated from an islandwide scale, focusing on the decisions enacted by the island’s elites, concluding that the fortification system was not particularly useful in defending the island, nor was it actively conceived as part of the internal security network. This top-down approach developed a structure whereby the island is re-contextualized to better understand the shifts in the political and social economies of Antigua. The fortifications, however, provide another legacy which can be used to complicate the social dynamics of the island: the complex fortification communities

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<sup>2</sup> As discussed in Chapter 2, military centric interpretations are ubiquitous across the Caribbean, with a few exceptions (e.g. Beier 2017; Kippel and Schroedl 2007).

which grew up at these forts, defined by a heterogenous cross section of Antiguan society encompassing a wide range of relationships largely unconsidered in plantation studies (e.g. DeCorse 2001; DeCorse and Beier 2018; Machling 2012: Chapter 6).

Drawing from the Antiguan Legislative Minutes, the Acts of Antigua, and the material culture from fifteen fortification sites, this chapter examines the lives of these people who operated on the edges of the sugar plantation system to see how they were impacted by, and impacted, the sites of Antiguan elite political expressions of power. The first step in this chapter is to populate the landscape by identifying historic groups and individuals who lived at these sites. We start with the positions hired out for Antigua's fortifications in the seventeenth and eighteenth centuries—gunners and matrosses—and develop a greater understanding as to who was considered qualified by the Antiguan government to hold those positions, considering class, race, gender and age. Then, I thicken the descriptions of the fortifications by analyzing artifact assemblages to tease out additional insights into the people who made these fortifications their home. I conclude this chapter by carving out a figurative space between the dominant social paradigms—the plantation and the military—in order to establish room for lives lived parallel to, and interacting with, those facets of island life, but remains distinct from those hierarchical structures. It is here where the martial landscape impacts the lives of the people living within it.

### **Peopling the Martial Landscape**

In developing the martial landscape in the preceding chapters, I focused on the materialization of the military aesthetic in the form of fortifications, and demonstrated the strategic and tactical shortcomings of their construction and distribution. This approach largely kept the individuals stationed at these places out of the discussion. Here, I add those people in by focusing on the impacts of the social machinations of the island elite on defense policies on the communities

found at these sites. And, just like with the construction and maintenance of the fortifications by the elites, the people living at these sites were also not military, although through titles and relationships, as we shall see, they maintained a military aesthetic. Here we explore these people further. How many individuals were supposed to be on these sites? How many reported regularly to their positions? What enticements or coercions were used to get individuals to serve on these fortifications, especially if there was potentially better paying work as an overseer, attorney, merchant, privateer or artisan? What kind of person was attracted to these kinds of positions, and how did they live out their lives in this capacity? And, finally, on an island demographically dominated by enslaved Africans, a small free black community, and a proportionately and absolutely shrinking white population, were these multiracial sites? The fortifications' peripheral status, both geographically placed along the coastline, as well as economically and socially, with most of them established far away from the centers of power and money, offers a unique historical entrance into a cross section of Antigua's poor, disenfranchised and enslaved populations in a way which is not overly present in a plantation setting and allows us to further observe the results of the Antiguan government's manipulation of the landscape.

From the perspective of the Antiguan elites, the Assembly, Council and Governor, the Gunners and Matrosses represented a group of individuals necessary to maintain security and perform preventative maintenance on the materials around the fortifications, and should be drawn from a class of individuals who already had some experience with warfare. Trevor Burnard (2015: 53-98), suggests that the white, poor, male population coming to the Caribbean already possessed a predisposition to violence, having previously served as soldiers or sailors, or were part of a criminal class, deported from Britain as indentured servants to the colonies, suited to this kind of work. Indeed, merchant sailors were often armed in wartime and basic training in

the use of arms and cannon in local militia units in Britain, and especially in the colonies, which follows that a large portion of the eighteenth century male population was somewhat familiar under arms is not inconceivable, and indeed desirable for an island government worried about its security (McCormick 2015: 5; see also NAAB 324: 7 September 1741). Compounded by disease and other forms of attrition which decimated the population, employment opportunities in the West Indies for poor whites were legion (e.g. Burnard 1999).

While pulling bits of information out of a series of governmental documents, and applying them to the 110 years of this study is methodologically difficult, understanding how the elites viewed the positions of gunner and matross, which shift, the underlying issues impacting these positions—absenteeism, poor recruits, and inability to procure enough men—remains consistent. It is within these investigations and reports that we can gain some insight into the individuals hired for these jobs, and how their roles played into daily life at the fortifications.

### *Recruiting Gunners and Matrosses*

Before the massive fortification expansion around 1700, there were few fortifications on Antigua, largely centered around the small communities at St. John's and Falmouth. The earliest threats came mostly from indigenous Caribs and their French allies, compelling the Antiguan government in 1676 to establish a system whereby paid guards, supplemented by the militia, would patrol the island for external threats. In the days leading up to and after the full moon, these patrols were doubled, as indigenous raiders used the additional light to launch raids.<sup>3</sup> By

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<sup>3</sup> There are two conflicting accounts. The first, relayed by Oliver (1899: lii) comes from a letter to the Board of Trade and Plantation by Colonel Philip Warner, Deputy Governor of Antigua, the son of Thomas Warner, who was imprisoned in the Tower of London for killing his brother in the Indian Warner Affair (see Langahan 1844; Boucher 1992: 82-83; Taylor 2016). He claims that Antigua had “Every night 14 files of men are on guard against the Indians and three nights before and after the full moon, they are doubled and make continual horse patrols. The men are paid 8d a day by the islanders,” supplemented by “1,100 well-disciplined Horse and Foot” out of a population of 3,500 “white and black” (as cited in Oliver 1899: lii). Governor Stapleton, writing at the same time to an enquiry by the Board of Trade and



the end of the seventeenth century, the threat to Antigua only increased, driven by European wars spilling into the Caribbean. New wealth brought to the island elites by sugar and other tropical crops encouraged European governments to pour additional defensive and offensive military forces into the Caribbean. For Antigua's government, their system of patrols and small guard houses along the coast were not enough to repel these new threats, and with demographics shifting to ever larger proportions of enslaved Africans, poor whites in the militia faced structural poverty and social stagnation (see Dunn 1972: 130-131). By 1696, the reliance on the militia in the rapidly transforming sugar economy failed, with the Assemblymen stating that, "The crys of the poor have so often sounded in the ears of the members of this house, by moans of the dayly oppression they lye under by their Continuall guarding, which the wealthier inhabitants are for the most part exempted from," (NAAB 314: 10 October 1696). In its place, the Antiguan government agreed to "the appointment of Standing Guards throughout the Island, to be paid for out of the publick treasury" (NAAB 314: 25 March 1697). The subsequent Act (CO 8/3: 21) established two files of five men, pulled from the militia regiments, to be stationed around the island, and compensated at a rate of 2000 lbs. sugar per man per year, in addition to a barrel of beef for each file.<sup>4</sup> These men were excused from serving in the militia directly, and were given a pay considered enough to subsist on, thereby reducing the need for them to work a small farm to survive. The rest of the militiamen were thereby freed from continual service and only had to muster when called upon. While these guards were still nominally under the control

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Plantation wrote that Antigua had "but two files of men," in addition to "a troop of 33 horse, a regiment of 770 foot," (CSPWI: November 16-30, 1676, pp. 494-507). Based on the census figures in 1678, it is likely that Warner's militia numbers are more accurate, but his overall population estimate is low. Stapleton, actively writing for more military support from the Crown seems to have deflated the total numbers for all of the islands to make them appear weaker.

<sup>4</sup> The first men to be paid out from this Act were for four men, "Cornelius Kenody, Bartholomew Applegate, Conelius Minehan and Thomas Griffin, garders hired for half-moon bay" (NAAB 314: 22 April 1697).

of their respective militia colonels, this Act set the precedent identifying guards as their own entity within the martial landscape of Antigua.

Gunners, in the seventeenth and eighteenth century, were the men who aimed and fired great guns. They were in charge of directing either a single weapon, or an entire battery of cannons. Matrosses, or gunners' assistants, formed the rest of the manpower necessary to successfully and efficiently load and fire a cannon. With the development of larger and larger artillery parks and new methods of siege warfare in Europe, governments turned increasingly to professional soldiers trained in national artillery institutes (Caruana 1994a; Duffy 1975; Maurice-Jones 1957). There, soldiers were not only trained in the gun drill, but required to take classes in engineering and advanced mathematics, as well as engage in experimentation and the development of new cannon types. Gunners and matrosses in the British system were dispatched from their headquarters in Woolwich, to serve in a variety of different posts, including as part of Regiments of Foot and Royal Navy vessels. Once reaching a certain age or were physically unable to stand up to the rigors of participating in active service, the men would retire into the Invalid Corps of Artillery, and be assigned to fortified garrisons along the British and Irish coasts (Maurice-Jones 1957). Units were dispatched to the Caribbean to participate in offensive operations, however, they did not stay until a permanent detachment was garrisoned at the Royal Artillery compound on Shirley Heights after the American Revolution (Nicholson 1994: 21).

The terms gunner and matross were adopted for use in Antigua to designate the men who were paid to stand guard at the principle fortifications, maintain the equipment, and provide the necessary artillery knowhow to defend the fort when necessary. While gunners and matrosses were present at Fort James, Old Road Fort, and Fort Charles in the seventeenth century (CO 155/1: 24 July 1692; CO 155/1 19 July 1692/3), it was during the construction of the ring of

fortifications around the island starting in 1700 when issues of competency caught the attention of the Antiguan government. In a report to the Council in 1707, the Assembly complains that, “We are informed the Gunners of the several Forts, and Platforms belonging to Saint Johns, Falmouth, Parham & Willoughby Bay are very negligent in their Duty, being Seldom, or never at their posts in the Nighttime,” and recommending their termination and replacement for that post (CO 9/1: 24 January 1706/7). Desertion was commonplace, with reports of gunners and matrosses failing to do their duty appearing in 1723, 1735, 1736, 1738, 1745, 1746, 1759, and during a major corruption investigation in 1775.<sup>5</sup>

Investigations into desertions appear only when the practice was widespread. The reason most often given for failing to do duty was lack of subsistence and opportunity for advancement on a small island. While payment was originally set at 2000 lbs. of sugar per annum in 1697, along with a barrel of beef, this type of provisioning did not last. First, the price of sugar collapsed, which, in a petition by James Atkinson, Gunner at Fort James claimed that he could not “pay either Victualls, or drink to support himself & Family” (CO 9/1: 25 August 1707). The petitioner asked for cash in lieu of sugar, which was ultimately granted, although in the form of script and promissory notes issued by the Treasurer. In their response, the Council specifically reference the need to find a solution to satisfy “the poor people who served the Country,” signaling the status difference between the elites and the poor white population on which they relied on to protect them. Solutions were difficult to come by, with little political will to raise salaries or create additional incentives. Compounding these issues was rampant inflation and

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<sup>5</sup> Respectively, CO 9/5: 9 September 1723, NAAB 323: 16 January 1735, NAAB 323: 15 October 1736, CO 9/12 1 March 1738, NAAB 324: 27 August 1745, NAAB 324: 5 June 1746, CO 9/24: 1 March 1759, and NAAB 329: 24 August 1775. Interestingly, several of these charges, especially those in 1723, 1736, and 1738 happened during peace time, where the apparent threat to the island was minimal, yet the Antiguan government continued to maintain the fortification network built in the previous decades.

undervalued promissory notes. The value of the notes issued in 1745 was so low that, after complaints that the merchants would not accept them for their value, the government had to “borrow Fifteen Hundred Pounds for the Payment of the Montrosses & Gunners of the Forts in Specie & to be applied to no other Purpose,” just to keep them at their posts during a war (NAAB 324: 27 August 1745).

Complaints about poor pay continued to be an issue, with the elites simultaneously alarmed at the rate of desertion by gunners and matrosses for other opportunities and unable to overcome the disdain they held for the poor.<sup>6</sup> In 1736, the Assembly addressed Governor Mathew, stating that, “The Publick Salaries yearly paid to the Gunners & Montrosses of his Majesty’s Forts in this Island were thought sufficient to subsist & Support them in a Comfortable Manner yet their attendance is seldom given & their Duty almost totally neglected,” (NAAB 323: 16 January 1735). In this specific case, the Assembly pointed to the Gunner of Fort Berkley at English Harbor, who, “was & still is wholly unfit for the same not only in point of Knowledge & Capacity, but also by reason of his constant attendance required at the Port of Parham as an Officer of his Majesty’s Customs.” The man was neither qualified to be the gunner, nor was he actually able to attend his duties there, as his post in Parham was on the other side of the island. This episode, and several other like it, are at the crux of economics, demographics, and class distinctions which divided the planters from the poor whites on Antigua. For instance, they believed that they were offering a generous compensation package for gunners and matrosses. Wages, however, remained largely stagnant, as prices continued to increase dramatically over the

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<sup>6</sup> In a summary of expenses done in 1717, the annual peacetime budget to support gunners and matrosses on Monk’s Hill and other fortifications was £548 per annum, although how many men this was supposed to pay for is not explicitly stated (CO 9/4: 15 August 1717). These expenditures explode during wartime to include £5,800 for managers, clerks, overseers, provisions and enslaved labor to work on the fortifications, £900 for twelve guard houses and an additional £150 for provisions sent to the guard houses.

course of the eighteenth century (Sheridan 1976). With a small and shrinking white population, opportunities for better wages doing other work were constantly available (see Burnard 2004; 2015). Indeed, there is evidence of several of the gunners and matrosses holding several positions simultaneously, including as indentured servants and overseers on plantations, or local government positions which were given out on a patronage system, often by the very men who were complaining about the desertion rate (e.g. CO 9/12: 1 March 1738; NAAB 329: 11 April 1776; see Sheridan 1961).

With little incentive to stay, posts which were far away from the centers of social life, and few opportunities for advancement, gunner and matross positions were just not that attractive to poor white men. In response, the Antiguan legislature devised several other schemes were devised to attract enough men to garrison the fortifications. Several of the fortifications came with land on which the gunners and matrosses were expected to raise gardens sufficient to supplement their diets. For instance, the men on Monk's Hill received 10 acres of land, "to manure for Provisions," in addition to their pay and an annual barrel of beef (NAAB 323: 15 November 1736). This scheme followed the precedence set by Fort James, where the land on which the fort was initially given with additional space to allow the gunners and matrosses space to grow additional produce (CO 9/7: 18 November 1730).

With the rapid expansion in permanently garrisoned fortification during the War of Austrian Succession (1739-1748), keeping the fortifications manned was difficult. Wartime prices made subsistence on a matrosses' salary difficult at best, and several of the men serving on the legislative committees overseeing the fortifications laid out some of their personal wealth to retain men. Ever conscious of losing money, the Antiguan legislature voted to give every four men a barrel of beef and a barrel of flour to support them at the public's expense (NAAB 324: 10

April 1745). This allowance was meant as a supplement to the diet and an additional enticement for recruitment. Additionally, gunners and matrosses were expected to fish to supplement their protein, since most of the fortifications were situated on the water's edge (CO 9/20: 4 January 1747).<sup>7</sup>

Aside from the declining white population in Antigua and poor pay and conditions of serving at the fortifications, wartime conditions placed a further strain on available manpower reserves on the island. Privateering, for instance, offered a chance at quick wealth for impoverished white men, making signing onto a local crew an attractive option (CO 9/24: 1 March 1759). Private vessels of war were numerous in the Caribbean, where opportunities to take heavily laden vessels abounded, drawing large crews of men away from the island and onto the sea. Antigua's poor white male population joined up in droves, causing major demographic concerns for the island's plantation elites. For instance, during the Seven Years War, the Antiguan government suddenly realized that, "at least one fifth part of the white men belonging to these Islands are already engaged on board Privateers," not only compromising the security of the island, but also forcing them to admit that they could not raise a troop of volunteers to help the war effort in Guadeloupe (CO 9/24: 1 March 1759). In the same address, Governor George Thomas continued, "That from this diminution of the number of white men, The Forts & Batterys of this Island are less almost defenseless for want of Matrosses, who from the hopes of

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<sup>7</sup> The reference comes from a petition by the matrosses at Monk's Hill who argued that because the road to the fort was so bad, they could neither get their barrels of beef up the hill, nor were they able to afford the freight cost associated with having those barrels hauled up the hill. Instead, they claim, they were forced to sell their barrel at a loss, and did not have any other means of substituting the loss of the beef since they were stationed inland and could not leave the fortification to go fishing every day. The other gunners and matrosses, they argued, had their barrels of beef delivered to them by water, and they were close enough to the sea to go fishing without deserting their posts. As a compromise, the legislature agreed to pay the matrosses an additional £25 per annum in lieu of the barrel and opportunity to fish (CO 9/20: 4 January 1747).

Plunder in an Enemys Country, cannot upon any terms be persuaded upon, to return to their former employment.” Fortifications went unmanned, and the militia was considerably understrength because, in part, of the poor working conditions set by the Antiguan elites for poor whites.<sup>8</sup> With the French periodically achieving local naval superiority, and French privateers continuing to operate around Antigua, raids or an invasion were not outside the realm of possibility, and providing enough men to maintain control over the island’s martial landscape was a constant worry.

While white men are most often represented in archival documentation, their presence is not exclusive to the fortifications and belies the complex communities that lived at these sites. Many of the fortifications were remote, often spatially and socially far removed from the political center around St. John’s. Nevertheless, these communities were not isolated and were intimately intertwined into the rural, agrarian society around them, encompassing a multitude of gender, race, age, and labor status identities. Their visibility in the documentary record, while sparse, requires analysis and incorporation to better understand daily life at the fortifications, but also offers hints of levels of Caribbean society which are often glossed over, namely the lives of populations not tied to plantations (Waters 2019). Their documentary presence also informs the archaeological analysis, creating more complex lived spaces than a homogenous, military aged, male dominated space which might be otherwise assumed.

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<sup>8</sup> Governor Shirley, writing to the Lords of Trade in London, admitted that he had embellished the facts related to the state of Antigua’s defense, stating in an earlier letter that he had more than 1,100 men under arms in the militia in 1782, when in actuality he could muster fewer than 900 men. He continues that all the forts around the island are, “in a ruinous and untenable state, & originally constructed with no other design than that could promise success but that of annoying the enemy in their attempt to land,” suggesting that if the French mustered even a small invasion force, the island would rapidly capitulate (CO 9/41: 22 August 1782).

### *Enslavement in the Martial Landscape*

Enslaved African labor built the fortifications. Mechanisms passed into law allowed for the enumeration and conscription of enslaved labor on the island for public works projects, namely for defense, but also for clearing roads, cleaning ponds, dredging harbors and other labor-intensive projects. Time spent by these individuals on each fortification was short, and this particular population transitory, rotating enslaved labor out after every conscription period ended, and new conscripts were brought in. Unless killed or injured while on their time at the fortifications, there is little more resolution, documentarily or archaeologically, which can be ascribed to individual action, leaving ephemeral marks of daily lives. Nevertheless, these individuals interacted with the people living at these fortifications in spaces outside of their normal taskscapes (Ingold 1993).<sup>9</sup>

Other enslaved persons, particularly men, however, were retained permanently at the fortifications as manpower supplements when, “White men to serve as Montrosses, cannot be procured,” (NAAB 336: 281: 21 August 1806). The use of enslaved men to augment colonial forces is well documented (Voelz 1993). In the British Atlantic World, enslaved men served in a wide capacity of military roles, including as pioneers, artificers, laborers, craftsmen, sailors, and with the establishment of the West India Regiments in 1795, as soldiers (Buckley 1979; 1998; Dyde 1997). In Antigua, “trusty negroes,” were armed in times of alarm to augment the island’s forces, as well as being ordered to fortifications to serve as matrosses (CO 9/22: 11 August 1756). During Queen Anne’s War, Corbinson’s Point had three enslaved matrosses for several

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<sup>9</sup> Between 1697 and 1748, a total of 20 enslaved laborers were recorded as having lost their lives or were severely injured working on the fortifications in Antigua: thirteen of these men are named; Jack, Nero and Jemmy were “killed in the public service,”; Obring was killed at Rat island, Quinsaw was killed and Peter injured at Monk’s Hill; and Billy, London, James Soe, Caramante Quamono, Dick, Joe, Scipio and Johnno were killed in an explosion at the Dockyard. These losses are no longer recorded after 1748 for reasons unknown.



years (CO 9/2: 3 May 1711). While these are vague hints, the likelihood of more enslaved men serving at these fortifications for the safety of the Antiguan elites throughout the eighteenth century is high because of demographic concerns: there were not enough white men willing to serve as gunners and matrosses, and trusted enslaved men were trained in their stead.

### *Fort Families*

While the enslaved laborers ordered to build and repair defenses only occupied the fortification spaces infrequently, there were more permanent communities which sprung up around fortifications. Whereas prior to 1740, only a few fortifications were permanently garrisoned, by the end of the War of Austrian Succession the Antiguan government agreed to maintain a permanent force of gunners and matrosses at fifteen forts around the island (CO 9/20: 8 March 1749). By 1777, the government capped the number of matrosses during peacetime at 59, with an additional fifteen gunners, one for each of the principle fortifications on the island, in a bid to regain control over the disposition of the gunners and matrosses at these fortifications (NAAB 329: 27 March 1777). The purpose of the 1777 debate and subsequent Act, “An Act for the Regulation of his Majesty’s Forts and Fortifications in this Island & for the better Government & payment of the Gunners & Matrosses employed thereon” (CO 8/19: 1-6) was to reign in the fraudulent bookkeeping done by gunners on the fortifications, first reported in 1775, and occupied several Assembly Sessions. The review, conducted by the oversight committees concluded that, “improper Persons were rated as Matrosses,” on six of the fifteen investigated fortifications (NAAB 328: 11 April 1776). These improper persons included gunner’s wives and children, minors in the form of wards of the parish, and free black men.

The presence of families on military sites, and therefore heterogenous occupations, is one which has been only recently recognized as an important consideration (DeCorse and Beier,

2018; Voss 2008). Pulling out the quotidian details about life, family formation, and daily life of marginalized populations from archival sources is difficult, especially from incomplete information found in administrative documents (Fuentes 2010; Stoler 2010). In this case, the clues come from occasional petitions, vague decrees, and technical reports from which a blurry, yet important picture of the community can be drawn.

White families were clearly part of the fabric of Antigua's fortifications. The 1776 inquiry into the fraud perpetrated on Antigua's fortifications includes the wives and several children of the gunners on the fort improperly enrolled as matrosses (NAAB 328: 11 April 1776). The government's larger concern as breaking the acknowledged practice of, "following the Examples of their predecessors in the posts they hold," in hiring these improper persons to the roles (NAAB 329: 2 May 1776). In one case, the gunner of Black's Point Fort, rated a young Child as a Matross on that Fort and had drawn for and received Pay for him from November 1<sup>st</sup> 1767 to the present time," suggesting that this was a long standing and common practice (NAAB 328: 11 April 1776).<sup>10</sup> James Knewstub, the gunner of Great George Fort on Monk's Hill was likewise accused of "rating his own Sons and Daughters," as matrosses under his command, filling some or all of the nine positions at that fortification. While hiring his own children was considered negligent, his own position as gunner had been passed to James after his brother, the original gunner, died sometime before the 15<sup>th</sup> of May 1766 (NAAB 327: 15 May 1766).<sup>11</sup>

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<sup>10</sup> The nearly decade long delay in recognizing that a child was rated as a matross at Black's Point Fort, or any of the other fortifications for that matter, speaks a great deal to just how small of a priority defense was to the Antiguan government during times of peace. The committee members responsible for oversight of these fortifications clearly did not pay much attention to their charges.

<sup>11</sup> William Knewstub was appointed in 1763 (NAAB 327: 20 October 1763). Despite rating his children as matrosses, James Knewstub continued in his position as gunner and storekeeper at Monk's Hill until 1779 (NAAB 330: 8 April 1779).

Other than this snapshot into the families living at Antigua's fortifications, the remaining references remain significantly more circumspect. James Atkinson, gunner at Fort James, petitioned the Antigua Council in 1707 for cash, rather than sugar, explicitly referencing the difficulties he had in feeding his family on his salary (CO 9/1: 25 August 1707). In 1759, matrosses were described as, "ten acre men with familys" (CO 9/24: 2 March 1759). This suggests that the matrosses were drawn largely from white men who had completed their indentures and were eligible for land from the government. This does not, however, mean that the farms plots were near to the fortifications where they served. In 1736, the matrosses on Monk's Hill "wished to have their Family's with them and Convenient Lodging for them" suggesting that land was not necessarily provided for the matrosses adjacent to where they were serving (NAAB 323: 15 November 1736). This latter example also offers some tantalizing additional clues about family structures at Antigua's fortifications. The request was debated just as the 1736/37 Prince Klass slave conspiracy was unfolding in its earliest stages. While the reaction by the Antiguan elites remained cautiously optimistic about the situation in these early stages of the conspiracy, they were ready to grant the request to provide additional housing to accommodate families (Gaspar 1985).

Spooked by recent events, however, the island's elites added an additional caveat to their response to the matrosses petitions. The Antiguan Assembly resolved, "that they may have liberty to keep their white Family's with them, *But no Slaves,*" (NAAB 323: 15 November 1736, emphasis added). Here, we come into conflict with the social complexity of life in Antigua in the seventeenth and eighteenth century. That enslaved women were made sexually available for exploitation by white men on plantations is well established, and often producing children (Brown 2003; Burnard 2004). Less studied, however, are the formation of mixed race, and

possibly mixed status, family units between poor whites and enslaved Africans (e.g. Reilly 2016). The peripheral status of Antigua's fortifications provided the spaces in which these relationships could continue, even to such an extent that the plantation elites had to legislate that these unions constituted a threat to the security of the island. In addition to mixed race and status families, there were several instances where gunners and matrosses also managed to purchase enslaved Africans. For instance, Jamasin Peters, the widow of a matross at Corbinson's Point Fort, petitioned the Antigua government for the balance of her husband's salary, as well as "remittance of the Tax on one Slave," which was granted by the Antigua Assembly (CO 9/20: 12 April 1750). While it is likely that many of these individuals were leased out to plantations, thereby augmenting a gunner or matrosses income, it is also possible that enslaved persons shared the limited spaces in which these people were meant to reside (Shaw 2013).

Unfortunately, these few examples exhaust the historical details related to the complex households which formed around Antigua's fortifications. This sparse information, however, is enough to demonstrate that approaching these defensive sites as military site is untenable, forcing new silences around the inhabitants. What these historical references do offer, however, is a chance to reevaluate the archaeological assemblages from these sites as complex households, with gendered, aged and racial components.

## **Materializing Life on the Fortifications**

### *Spatial Organization*

Life happened within the fortification spaces, and how space is organized can offer insights into the patterns of life at the fortifications. There are several non-military features at Antigua's fortified sites which speak to daily interaction. From historical documentation and cartography, guard houses, barracks, and kitchen spaces appear at most fortifications. Water cisterns, a

requirement on an island with very little ground water and few springs, also appear at some sites. From the discourse above, I have already established that heterogeneous communities called these defensive structures home, at least for a short while. So, how are the sites themselves organized to create spaces in which these communities could live, if not flourish?

As early as 1704, failure to do duty as a standing guard at one of the fortifications resulted in a court martial under the Articles of War, which, in theory, included capital punishment for dereliction of duty (CO 8/1: 105). No evidence has turned up to suggest that such drastic actions were taken against any of the men hired to guard the fortifications, even though their regular presence at these sites came into question often (e.g. CO 9/1: 24 January 1706/07). In 1736 a similar complaint issued from the legislature, claiming:

the Gunners and Montrosses to be constantly on their Duty at the Several Forts and Fortifications, there is still the utmost remissness in that matter Particularly at Monks Hill where at nights there is Seldom more than two or three Montrosses that the Publick is at Chare of paying Nine for the Security of that Place besides the Gunner which is so Notorious an Abuse that we cannot omit representing it to yo.r Execellency (NAAB 323: 17 October 1736).

In 1776, more reports of matrosses not living at the fortification lead to a massive fraud investigation, eventually ensnaring gunners at six different sites across the island for a wide range of abuses (NAAB 329: 11 March 1776). Indeed, some of the engaged matrosses were living miles away from their respective positions, a situation which the Antiguan legislature found untenable. In each of these cases, dismissal from the service was recommended, rather than harsher corporal punishments. Nevertheless, their negligence offers some insight into the spatial arrangement of Antigua's fortifications.

The expectation held by the Antiguan legislature, especially during times of war, was that Antigua's fortifications would be manned all the time, with the full complement of gunners and matrosses present (CO 8/1: 105). To provide for this, each of the fortifications had a small guard

house either within the walls, or set adjacent to the firing platform. Several of these structures were identified in surveys, and Horneck (1752) explicitly refers to their condition in his report on Antigua's fortifications. There are several observations. First, the size of the buildings are generally very small, indicating that the purpose of these buildings was to supply cover for the gunners and matrosses only. Families were likely not considered in their construction. For those fortifications near to urban areas, this may not have posed much of a problem; indeed, the complaint in 1706 lists only fortifications in major port settlements, suggesting that the men went to homes nearby at night, rather than serve at these stations in fraternal company. Families, of course, became a sticking point between the men serving at the fortifications, and a legislature reticent to spend more money. In 1736, the Assembly begrudgingly gave permission to the matrosses at Monk's Hill to bring their families into the fort after agreeing to repair some of the derelict buildings there for their use (NAAB 323: 16 November 1736). Direct archaeological evidence for which structures the matrosses and their families may have occupied in the eighteenth century on Monk's Hill is scarce, although several of the 47 identified structures are tentatively suggested (Murphy et al. 2015).

The small living complexes offer two possible interpretations. First, that the entire community at the fortification lived within the guard house space in communal living. Close quarters family living occurred in military barracks and on ships in the seventeenth and eighteenth century, suggesting that this may have been a possibility (Buckley 1998; Roger 1986). At several of the more rural fortifications, this may have been the case, especially since children were sometimes rated as matrosses and oversight over who was living at these places was lax. However, this does not discount the possibility that families lived nearby, on small farm plots, or even possibly lived in a totally different part of the island. Their material presence, then, cannot

be necessarily seen within the archaeological remains, but must nevertheless be considered. While direct evidence for this in terms of standing buildings or foundations for structures of a size which may be indicative of several single-family homes is lacking, the density of material culture, including significant amounts of tablewares found within the vicinity of these sites (below), suggests a degree of centrality for the communities established there. Coupled with better access to agricultural land and fishing (CO 9/20 4 January 1747), the material evidence suggests that the men hired to live and work at the site, did live there with families in community, to a degree.

One of the curious secondary aspects of the sites is the inclusion of public cisterns at some of the rural fortification sites. One of the major early defensibility concerns was “the Fronteer:” the rural east coast of Antigua (CO 9/2: 8 April 1711). The earliest defensive policies for that coast included the construction of water cisterns (e.g. CO 155/2: 28 July 1693). These cisterns were meant not only to supply the guards stationed at these sites, but also to create a communal catchment for the surrounding small farmers in the immediate vicinity (CO 9/2: 19 February 1711/12). While primarily conceived as defensive structures, the Antiguan government expanded the social role of these outposts, encouraging communities to form around them. This, in turn, would have had the effect of expanding the number of possible men available to serve at these sites as matrosses while simultaneously providing the local community with increased water security. This spatial arrangement adds an additional layer of social complexity, with the smaller, rural fortifications serving as communal spaces for a much larger population than perhaps considered. The long-term effects of this strategy are difficult to assess, however, as it requires a more thorough investigation of poor white communities in Antigua.

## *Material Culture*

While this project is primarily survey driven, predicated by the landscape perspective, the deeper I engaged with the written record and the more often I visited these sites for survey, the more I knew that the individuals living at these sites required a deeper archaeological treatment in order to better contextualize the broader social complexity which Antigua's defense policy illuminated. Several methodological issues, however, plagued a thorough material culture study of these sites. First, as mentioned earlier, many of these sites have been destroyed, either historically, robbed of its building materials, or more recently, with luxury houses or other infrastructure built over top of sites. Second, most sites are in private hands, and permission to excavate on these sites was not given, as most worried that if something of value was found, they would lose their property or be unable to develop it. Third, because of the nature of these sites—defensive features aimed at preventing vessels from approaching too close to the coastline—all of them are built at the water's edge, generally on a small bluff, overlooking the sea. In most cases, the bedrock was visible in the site, suggesting that deposits were incredibly shallow at best.<sup>12</sup> Excavations undertaken at Great Fort George on Monk's Hill demonstrated that most of the site had a sustained matrix of between 6 and 30 centimeters across most of the site (Murphy et al. 2015; Waters et al. 2016) (Figure 6.1). Johnson's Point Fort was completely built on bedrock. The other extreme was found at Fort William on Willoughby Bay, which had some up to 15 cm of overburden burying the original platform comprised of leaf debris and run off accumulation from

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<sup>12</sup> Suepersad (1999) and Leach (1999) report that the deposits at Fort Charles were between 5 and 10 centimeters deep inside the fortification, and up to 30 centimeters deep outside the fortification, however, only yielding 4 artifacts across 7 test pits. Murphy (2008) reported no archaeological deposits at Corbinson's Point Fort. Nicholson (1994), who did the most extensive surveys of Antigua's fortifications, including collecting 13 surface collections housed at the Museum of Antigua, notes that almost no deposits remain. At other fortifications in Antigua, I have observed that material culture was discarded over the walls, suggesting a relatively clean space within the fortification (Waters et al. 2016). For most of Antigua's forts, this means depositing material into the water.



when the slope behind the fort was under cultivation in the 1980s and 1990s (Murphy, pers. comm. 2017; Nicholson 1994) (Figure 6.2).



*Figure 6.1: Profile of the west wall of UC004. Note the lack of mortar and shallow deposition. Photograph by Christopher K. Waters.*



*Figure 6.2: Profile of Fort William along the northern perimeter wall eroding out of the bluff. Note the builders trench. Photograph by Christopher K. Waters.*

Finally, and perhaps most archeologically relevant, there are indications that the disposal patterns at these sites are uneven: specifically, that very little material culture was dumped within the walls of these sites and that garbage was tossed over the edge, specifically towards the water. Excavations inside and immediately outside the walls at Great Fort George in 2016 showed that there was a significant difference in the size of material culture. Inside the walls, the material culture was significantly smaller in overall diameter, and there was a greater presence of personal items, especially buttons and other adornments, whereas outside the walls, large fragments of ceramics, mostly intact glass bottles, and large shot were all found—artifacts which were scarce, if not totally absent inside the fort. This phenomenon has been observed at other sites (Cripps 2004), as well as during surveys at other fortification sites in 2016. Material culture was almost exclusively found outside the built perimeter, suggesting both habitation and disposal were done primarily away from the parapets, and the fortifications themselves were relatively clean. This hypothesis is partially supported in the archaeological, as well as historical record. Small building footprints of what are likely residences, also identified on contemporary maps, suggest that these buildings were slightly behind the actual fortification.

With shallow to non-existent archaeological deposits, most of the material culture for this study comes from surface collections housed at the Museum of Antigua and Barbuda, and supplemented with systematic surface collections undertaken in 2016 and from excavations at Great Fort George in 2016. Desmond Nicholson, in his publication *Fort of Antigua and Barbuda* (1994), draws on material culture from several sites for chronological purposes, but does not analyze the material culture any farther. Nicholson extensively explored Antigua, collecting archaeological samples, and sought to preserve as much information about as many different sites as possible. I was given access to his many collections, including those from thirteen

fortification sites, inside the holding cell behind the Museum of Antigua and Barbuda which was converted into a deep storage unit in the 1990s. The material culture came from systematic surveys undertaken by Desmond Nicholson, collected over the course of decades, and maintained at the Museum of Antigua. While no accompanying field notes were located with these collections, their provenance was secured through labelling directly on some ceramics, and alluded to in the museum database. Furthermore, without the ability to conduct excavations at all of these sites, including four which have since been destroyed by development, these assemblages offer more detail into the daily lives of the individuals stationed at these fortifications.

Chronologically, the diagnostic material culture separates these fortifications into three categories: early sites where the chronology terminates before or at the American Revolution; sites which are established late in the eighteenth century by the British military and continue into the nineteenth century, and sites which span both of these categories indicating continual occupation.

The early assemblages are all characterized by the overwhelming presence of hand painted, blue tin-enamel ware plates and bowls, followed by white salt-glazed stoneware flatware. Other ceramics include different types of stonewares and porcelains. Except for Fort Charles, the remaining sites' assemblages do not contain any pearlware sherds suggesting abandonment before 1780. A small proportion of each assemblage represents more utilitarian wares, such as locally made coarse earthenware and mass-produced stoneware jars (Figure 6.3).



Figure 6.3: Artifact assemblage from Fort Christian. Courtesy of the Museum of Antigua. Photograph by Christopher K. Waters.

Assemblages from late sites, in contrast, contain almost exclusively ceramic sherds from the creamware, pearlware, whiteware suite, giving these sites a *terminus post quem* of 1762 at the earliest. Tablewares, mostly flatwares and shallow bowls, form the majority of the collections, with only a few utilitarian food storage stoneware containers are present (Figure 6.4).

Continuously occupied sites bridge the material divide between the early sites and the late sites, with material culture spanning from as early as the seventeenth century until well into the nineteenth. While the functional analysis follows similar patterns to the previous site types: ceramics are largely tablewares used in food consumption, rather than food preparation, there is a noticeable shift in quantity of ceramic type correlating with chronology. In these continuous sites, the number sherds in the creamware, pearlware, whiteware suite, outnumber those with manufacturing dates prior to 1762. Specifically, the quantities are unequal, with the mass



*Figure 6.4: Artifact assemblage from Johnson's Point Fort. Courtesy of the Museum of Antigua. Photograph by Christopher K. Waters.*

produced imported British ceramics forming a larger part of the assemblages. The number of people engaged at these sites as matrosses and gunners, however, remains constant through time, especially at Johnson's Point Fort and Corbinson's Point Battery. Assuming that the number of additional persons at the fortifications, families, enslaved individuals, etc., is a function of the number of gunners and matrosses at the site, and the number of gunners and matrosses does not change, therefore the size of the community at the fortification does not change. To account for the increase in the mass-produced ceramics, then, suggests that prior to the introduction of cheap tableware, plates and bowls from other types of material, most likely wood, would have made up the difference. Shifts in eating patterns in the eighteenth century are well documented (Deetz 1996), along with new forms of industrial production of ceramics flooding consumer markets

like Antigua, opens up new ideas about members of the fort communities as consumers (Figure 6.5).



*Figure 6.5: Artifact assemblage from the Thomas Bay Guard House. Photographed by Christopher K. Waters.*

Across the entire collection, tablewares, in the form of plates and shallow bowls, were overwhelmingly represented, while ceramics generally ascribed to food storage and preparation were noticeably fewer. What this suggests is that food was prepared offsite, but consumed at or near the fortifications. This remains consistent with the absence of any discernable midden features near the fortifications, and the lack of further evidence due to the shallowness of the soil deposits. Indeed, for the early forts, the Antiguan government remarked that many of the gunners and matrosses lived nearby, but offsite, rather than maintaining a full-time presence at the fortifications like they were ordered to (e.g. CO 9/24: 2 March 1759). In this case, then, it is likely that food was brought to the fortifications already prepared, and consumed there. Soldiers in the later periods, although stationed at these sites permanently, were also fed from rations

cooked centrally and distributed, indicating a similar artifact disposal pattern with an overabundance of tablewares (Cripps 2004).

Curiously absent from these assemblages is the presence of glass bottles, specifically those which would have likely held alcohol. Rum and other spirits were readily available in taverns, but also from nearby plantations, and its abuse by soldiers was particularly complained about by military officers (Smith 2005; Varney et al. 2015). One reason for the lack of bottle glass might be the transportation and storage of locally distilled spirits in other types of containers. While this aspect has been suggested in other Caribbean contexts using items such as gourds or hallowed out canes (Smith 2005: 130-131), the biodegradable nature of these types of containers are not recoverable archaeologically. Disposal patterns, especially throwing items over walls and likely often into the nearby sea, further reduce the presence of alcohol containers and other refuse around the site.

#### *Individuality in the Material Record*

Several unique artifacts were also part of these assemblages, and speak to the complex communities which formed on the periphery the island. One particular artifact is a shoulder fragment from a locally made coarse earthenware vessel, stamped with two triangles to form a decoration (Figure 6.6). Locally made ceramics are common in the Caribbean, made largely for local consumption by enslaved Africans, hand built and fired in an open fire, and they are ubiquitous on Antigua's historic sites (Handler and Hauser 2009; Hauser 2008; Nicholson 1990; Peterson et al. 1999; Rebovich 2011). Within the above assemblages, dozens of sherds are represented. While consumption of these ceramics is subject to debate, the general consensus suggests that these wares were ubiquitous across the island and used by free and enslaved, white and black, alike (Rebovich 2011: 115-116). Decorated coarse earthenware ceramics in

Caribbean contexts are rare despite the well documented and long ceramic traditions in the region, however (Hauser 2008: 98, 124-125; see also Hauser and DeCorse 2003), making this find unique and context intriguing. Documented evidence indicates that enslaved persons were part of the fort communities, but often only as transient labor. Did the pot belong to one of these laborers? Or, did this belong to one of the enslaved persons who were ordered to stand guard as matrosses in times of war? While there has been plenty of conjecture related to decorated coarse earthenware in the western hemisphere (e.g. Ferguson 1992; Heath 1999; Wilkie and Farnsworth 1999), definitively ascribing this ceramic sherd to an enslaved individual at Johnson's Point Fort, let alone interpreting the symbolic and ethnic significance from a single sherd is problematic at best (Hauser and DeCorse 2003; Hauser 2009). Nevertheless, this sherd, tied in with the historical data, offers a tantalizing story about the daily lives of enslaved Africans at Antigua's fortifications, and supports complex, heterogenous, non-military societies with the fortification as the nexus.



*Figure 6.6: Afro-Antiguanware sherd with triangle stamp decorations. From Johnson's Point Fort, Antigua. Courtesy of the Museum of Antigua. Photograph by Christopher K. Waters.*

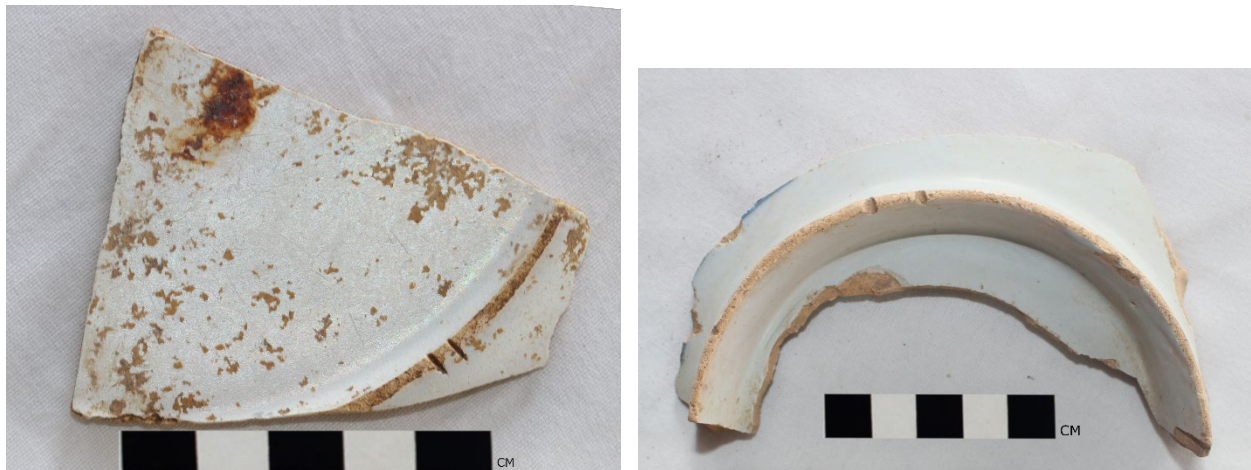
Two other unique artifacts strongly point towards ownership. A white salt-glazed stoneware plate base sherd from Johnson's Point Fort, and a tin-enamel plate base sherd from Fort Christian, both exhibit two notches cut into the foot (Figure 6.7). These notches are



interpreted as ownership marks: intentionally marring an item for identification purposes created by individuals who did not want to lose their possessions. As discussed elsewhere, effectively firing ordnance required training and experience. In a bid to secure at least a modicum of professional comportment, the Antiguan government offered:

if any private man belonging to the Companys aforesaid shall become invalid and infirm so as not to be deemed effective and shall have been constantly posted & kept in service upon this Island for seven full years before his discharge and within that time hath not been guilty of felony of desertion from the said Troops and is not so infirm as to be quite disabled...[shall be] placed as a Matross as soon as any vacancy shall happen upon some one or other of the Forts of this Island and shall receive the pay usually allowed and given to such Matrosses by act of Assembly provided always that the soldiers so discharged and put upon the Forts as Matrosses shall never exceed or be more in number than one Soldier for each Company (CO 8/13: 3-4).<sup>13</sup>

Personalizing items in strictly governed, close knit societies is a common way to retain individuality (Loren 2010). Marked possessions in military contexts is commonplace in Antigua, with several examples from the military encampment at Shirley Heights and the Dockyard curated in the Dockyard Museum. Living in a militarized environment, with former military



*Figure 6.7: Salt glazed stoneware plate base with two cut modifications (left) collected at Johnson's Point Fort, and a tin enamel plate base with hand painted blue decoration (right) also with two cut modifications collected at Fort Christian. Collections courtesy of the Museum of Antigua. Photographs by Christopher K. Waters.*

<sup>13</sup> The Act further provides transportation for soldiers to old and infirm to become matrosses, and have served their seven years on the island, transportation to Chelsea Hospital in London. Only two soldiers out of a nominal strength of 400, qualified for this bounty while stationed in Antigua (WO 120/14), demonstrating how high the bar was that the Antiguan legislature set for a successful discharge.

personnel, marking one's property would be normal behavior (Corvisier 1979: 180). Whether these two plates came from individuals discharged from the 38<sup>th</sup> Regiment is immaterial, as large numbers of men served in a military capacity during the seventeenth and eighteenth century and would have found themselves in the Caribbean (Burnard 2015; McCormick 2015).

The material analysis from these surface collections is not supposed to minutely investigate the daily lives of these people: the archaeological resolution is not high enough to come to form strong conclusions about key parts of household archaeology: segregation and use of space, gendered labor, or investigating minutely the material ideologies of the inhabitants. Surface collections from fortifications which are either destroyed, or contain shallow to non-existent deposits, along with the broad scale of this project, prevent an investigation into these details. The purpose of this analysis, however, is to demonstrate the analytical possibility that Antigua's fortification communities were diverse and complex; these were not military sites, but rather communities on the periphery of Antigua's sugar economy, drawn from populations which are largely absent from historical records. This is a taste of the many lived realities of the martial landscape: the direct impact of the shifting defense policies enacted by the Antiguan legislature, manifesting in the martial landscape. Future work should include targeted excavations at a few of the best-preserved sites, to get a better understanding of the daily lives at these fortifications, expanding from the preliminary conclusions developed here.

## **Conclusion**

Interpreting military sites is often overshadowed by a particular military campaign, a specific siege, or the fleeting presence of an (in)famous individual, or, approached at a global scale, such as interpreting the colonial and imperial ambitions of nations seeking to expand influence and gain access to new markets and resources. The purpose of this chapter was to frame Antigua's

fortifications outside of these dominant paradigms, favoring a community based approach to support the argument that these defenses were local projects, fulfilling local political and social expedient policies, and impacting local lives.

Two institutions almost exclusively dominate social histories and archaeologies of the colonial Caribbean: the plantation and the military. This chapter specifically divorces the imperial military institutions from the communities garrisoning the fortifications, while weaving these communities into the larger plantation system which spatially, economically, politically, and socially dominated the landscape, while maintaining their integrity as integral, but peripheral communities. Plantation communities are described dichotomously: black and white, free and enslaved, owner and labor. The communities built around Antigua's fortifications, however, require more diverse language to reflect the heterogenous occupation.

## Chapter 7: The Politics of Defense

*...and that being forced to our retreat on Monks Hill, we should be obliged from the weakness of the latter to be spectators to the destruction of the Dock Yard, and the magazines and stores there upon which the existence of our navy in these seas must depend without being able to prevent the mischief.*

General Shirley to Lord George Germain, 26 November 1781<sup>1</sup>

### Introduction

In the previous chapters, I demonstrated that the prevailing scholarly paradigms on fortifications—external defense and internal security—in the case of Antigua’s colonial defense network, do not stand up to closer scrutiny. Indeed, while the professed defense policy by the Antiguan legislature was to stop “Foreign or Domestick Enemys,” (NAAB 324: 12 March 1741), there was little strategic or tactical consideration to meet these demands. This is not to say that local considerations of attacks were not considered in the moment: there is ample evidence that specific threats galvanized the Antiguan legislature into considering vulnerable targets for immediate protection. These punctuated, frantic moments offer us departure points for understanding the martial landscape and how, even under the threat of an attack, the Antiguan elites carved out policies which served their individual needs first, rather than considering second and third order ramifications for their solutions.

The previous chapters not only undermined previous assumptions about Antigua’s colonial defense network, but also illustrated how the island’s elites framed the construction and placement of Antigua’s fortifications as a local, rather than an imperial, process. The decisions made for Antigua’s security came from internal deliberations and were not dictated from the

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<sup>1</sup> CO 9/41: 22 August 1782. General Shirley was the governor of the Leeward Islands. Lord George Germain was the Secretary of State for the Colonies in Lord North’s cabinet from 1775 to 1782. Shirley, in an attempt to galvanize action by the Antiguan legislature shared the contents of the letter with them, albeit nearly a year after the letter was sent.

metropolitan government eager to expand influence and control lives, as in later colonial paradigms emerging in the late nineteenth century. The control how the state—the small enfranchised, propertied, white elite—defended itself fell to the Antiguan government, and their ideas and desires manifested itself in the placement and construction of each of Antigua’s fortifications from the formation of the Leeward Islands government in 1670, through the American Revolution and impacted a diverse population in residence on, and surrounding, the fortifications. Many of these decisions were unrelated or marginal to the demand for external defense or internal security on an island-wide scale, but rather driven by a confluence of frantic expediency and being seen enacting a military aesthetic commiserate with the planter’s perceived status. The outcomes of these decisions were rarely considered beyond the immediate security needs of the few, at the expense of the entire island, including the Royal Navy and Army.

This chapter builds on the conclusions from the previous chapters, arguing that the placement and contexts in which Antigua’s defenses are found are better understood mediated through the policies debated and enacted by the island’s elites. The chapter starts with a discussion on the historiography of planters and plantation society in the Caribbean, placing the research in this dissertation within the wider historical Caribbean literature. Thereafter, I introduce two case studies illustrating how Antigua’s decision makers actively choose individually expedient defensive solutions, and how those decisions impacted the landscape. The first case study is of a planter built house on Monk’s Hill archaeologically excavated for this dissertation, which demonstrates how the individual political priorities of the powerful planters overwhelmed any tactical or strategic military thinking. The second case study demonstrates the active measures members of the Antiguan legislature took to protect their autonomy from direct royal interference in the first decade of the eighteenth century: decisions which had defensive

consequences which played out in the following decades. This is also where the martial landscape becomes socially entrenched in Antigua. Having established the absolute influence of the local legislature in crafting defense policies for Antigua, I examine the temporal changes in the spatial distribution of Antigua's fortifications, and interpret them based on shifting patterns of plantation settlement and the rising and waning fortunes of planters. I conclude this chapter with a discussion on the collapse of Antigua's martial landscape and political autonomy from Britain as the metropolitan government exerted new pressure to integrate Antigua into a model of direct control. This push succeeds largely due to the financial collapse of the Antiguan legislature from the defensive burdens of the American Revolution, increasingly powerful governors, and a larger military presence on the island structured outside the control of the island's elite.

### **The Decision Makers**

Twentieth-century social histories of the Caribbean interpreted plantation society as being coarse, uneducated, and backward, with a highly transient white population seeking to make their fortunes in a boom economy, and leaving the second they had the opportunity and wealth to retire back to Britain. Mortality rates in the Caribbean were high, and few individuals arriving the Caribbean succeeded in becoming planters themselves (see Burnard 1999; 2004). For those few white families who managed to produce the fantastical wealth which accompanied sugar planting, retiring back to Britain and entering the country gentry was a preferred option.

Drawing on a social evolutionary paradigm, scholars have argued that the rise in absenteeism by the most prominent planters in the Caribbean contributed to the brutality of the sugar system by removing the "best" members of society from the daily lives of their enslaved workers. Those who were left became corrupted with the power they could exert over the enslaved populations

under their charge, exacerbating the social and moral failings of an already bankrupt segment of society. This resulted in civil society in the Caribbean not developing beyond the rudimentary necessary for labor exploitation and resource extraction (Dunn 1972; Mintz 1985; Williams 1994 [1944]). Scholars, rightly, fixated on the brutal conditions created on sugar plantations for enslaved labor and the malicious delight which white plantation owners, overseers, and managers took in literally working enslaved Africans to death; whites' treatment of each other only further confirmed the moral depravity of plantation society drunk with power and wealth only exacerbated by fear of death from disease, the environment, and uprisings (e.g. Burnard 1999; 2004; 2015; Mulcahy 2014; Sheridan 1961; 1976). Planters, and their proxies on the plantations, had near absolute control over life and death within the bounds of their own properties. In this view, only the most basic tenants of governmental structure were necessary to maintain some semblance of order while not infringing on the status of planter as lord of his domain.

More recently, there has been some reassessment of this interpretation, suggesting instead, that in spite the harsh conditions, a somewhat stable society emerged, with some long lasting civic institutions upholding, "metropolitan social, political, and cultural ideals," (Zacek 2010: 264, see also Gragg 2003; O'Shaunnessy 2000; Shaw 2013; Lambert 2005). The Caribbean islands, while brutal environments, did develop social institutions derived from, in Antigua's case, English and British institutions, allowing these islands to prosper economically. This argument pushes against the earlier interpretations of incompetence borne of a moral failing derived from abolitionist arguments painting plantation owners as uncouth and immoral individuals. Rather, by arguing that social society copied from England not only existed, but flourished, decenters the British Atlantic World away from the northern colonies, (which

dominate historical scholarship in spite of their secondary status in the eighteenth century) to the Caribbean in an epistemological restructuring of the Atlantic World (Mulcahy 2014).

Webb (1973; 2013), advocated a slightly different perspective, focusing on the role of the Governor in the establishment and maintenance of English colonies in the Western Hemisphere. He develops the concept of a garrison government as the purposeful appointment of military men in the early eighteenth century as governors supported by Crown troops to expand the influence of the Crown into previously largely self-governed spaces. Specifically, Webb (2013: 4-7) focuses on the men who served with the Duke of Marlborough and tracks their careers as an indicator of a concerted policy dictated by influential courtiers in the English Monarchy. Marlborough, establishing himself at the center of English politics, presided over a paradigm shift, “away from tory commercialism and colonialism and towards whig capitalism and imperialism.” His lieutenants, elevated to governorships, pushed this new, centralized approach in the western hemisphere, striving for greater control by the Crown and enforced by soldiers and the church. In Antigua, Daniel Parke overtly pushed for quartering soldiers in private houses, allowing soldiers accused of crimes in the colonies to only be tried in Westminster, centralized customs to better control trade, and finally expanded the powers of appropriation by the appointed governor at the expense of the bicameral legislative local governments (Webb 2013: 279-280). In Antigua, this process came to an abrupt halt by the assassination of Parke in 1710; and the rest of the movement faltered with the ascension of the House of Hannover and rise of a new government in London, slowing the centralizing forces of an imperialistic system.

Central to the historiography of the Atlantic World, the Lesser Antilles, and Antigua in particular, however, is the importance of the relationship between the metropolitan government and its influence over the lives and politics in the colonies. Specifically, Antigua is filtered



through the context of decisions made in Europe impacting the Caribbean, and the planters in the Caribbean largely reacting to the decisions, and thereby reifying the dominant colonial paradigms of metropole and periphery (e.g. Menard 2006; Mulcahy 2014; Zahedeih 2010). This view, however, is simplistic, complicating a globalized view at the expense of local resolution. Despite the efforts to demonstrate that “English” society emerged on the islands, and that the metropolitan government constantly intervened in the control and business of the planters, the default relationship is still one of a bifurcated colonizer/colonized (for a critique, see Beaulieu 2017). Built into these assumptions is the recurring reliance on the Crown’s perceived monopoly on the use of violence through globalized military deployment. Antigua’s defense policy, as the preceding chapters demonstrate, show that this is not strictly true, and that there was considerable local autonomy, and indeed resistance, to the imperial ambitions of the British Crown.<sup>2</sup>

“Defense,” and decisions about the construction of defensive structures were inextricably linked to the sociopolitical landscape of Antigua. In the previous chapters, I reinvestigated long held assumptions about Antigua’s fortifications—effective external defense and augmenting internal security—and evaluated the spatial distribution of these defenses on Antigua’s landscape to see whether these assumptions are merited. The results show that these assumptions are overstated. The pattern of fortification construction and maintenance neither reflected a holistic defensive strategy, nor were placed in such a way which offered adequate internal surveillance. Indeed, as public works projects governed by the civilian island legislature, their construction,

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<sup>2</sup> Elsewhere, Alexander Campbell (2010), has argued that the 60<sup>th</sup> Regiment, Royal Americans, although officially a line regiment in the British establishment, was raised in North America specifically for duty in the Americas, and given significant autonomy to operate outside of the direct control of London. While this experiment in autonomy failed—the Regiment was deployed constantly, including to Antigua after the Seven Years War—the government in London was experimenting with different options which ceded considerable control to the local governments in the western hemisphere.

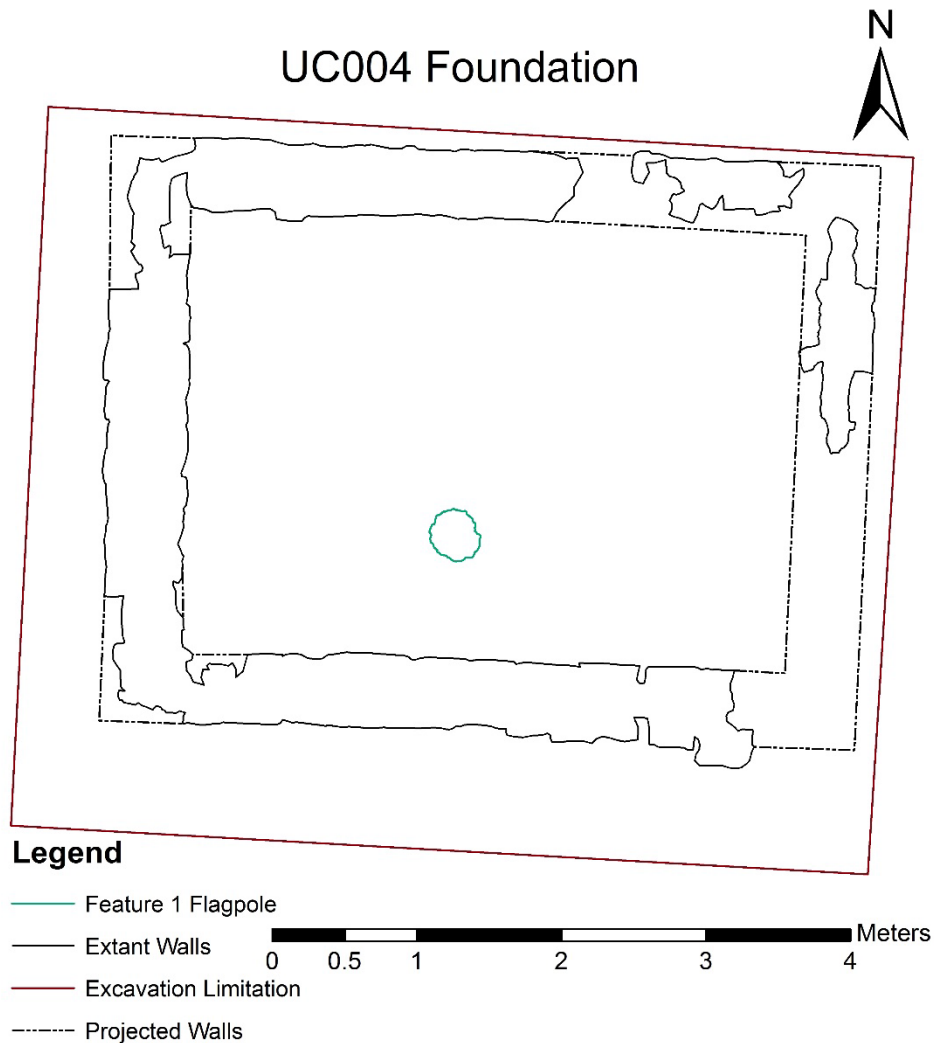
placement, supplying, and garrisons all strongly indicate that this system was not *military* at all, despite their *prima facie* appearances. The trajectory of political involvement, inadequate experience, and a slow degradation of island autonomy contribute more to how the fortifications were placed on the landscape, than military concerns. Therefore, rather than relying on simplistic military assumptions to interpret Antigua's fortification system as part of an imperial project, the fortifications affect is a reflection island politics and follow the evolution of the plantation system.

### **Monk's Hill: The Planter Retreat**

Antiguan elites participated in organizing the islands defenses for the most part in the abstract. As members of the Legislature, they debated policy, formed committees, drew up fortification plans, and developed contingencies, often—as we have seen—in haste as dangers materialized. The question remains, did they actually believe in their own rhetoric about the “natural strength” (CSPWI v.41 pp. 199-242) of their fortifications in the intra-legislative communications, suggesting a belief in their own abilities to act as military engineers and commanders in times of need? Or, reading their petitions and pleas to the Crown for additional cannon, naval vessels and troops, was the situation hopeless, and therefore understood their own defensive works and preparations as merely cosmetic—a security blanket on which fears were allayed and hope maintained? A building feature, excavated at Monk's Hill in 2016, addresses this question.

In the summer of 2016, the Antigua Archaeological Field School, under my supervision, excavated a building feature in Great George Fort on Monk's Hill (Waters et al. 2016). The feature, Upper Citadel 004 [UC004], was located by survey in 2015, and a small test unit yielded some of the earliest material culture found at that site, including sherds of Staffordshire Slipware (Murphy et al. 2015). The site was chosen for excavation because of the indication that this

might be one of the earliest structures thus far identified, and therefore, might yield archaeological clues as to life by the earliest inhabitants of the fortification: specifically, the gunners and matrosses sent by the Antiguan legislature to garrison the fort. Other buildings identified and tested during the 2015 yielded some late seventeenth and early eighteenth-century material culture, however, appeared to have been in constant use throughout the eighteenth century, with no evidence of stratigraphy to assist in separating out long term habitation.



*Figure 7.1: Excavation plan of UC004. Illustration by Christopher K. Waters.*

The feature [UC004], 4.04 meters wide by 5.23 meters long, and 21.3 square meters large (13.28 feet by 17.06 feet), is located in the Upper Citadel in the southeast corner of the fortification, perched along the ridge overlooking Falmouth and English Harbours (Figure 7.1). The underlying geology is the Liberta Greenstone, a volcanic tuff (Martin-Kaye 1959) which slopes from the northwest corner from a depth of only 9 centimeters, down to the south east, with the south-eastern corner of the feature reaching a depth of 57 centimeters.



*Figure 7.2: UC004 foundations. Note the expedient construction style and lack of mortar. Photograph by Christopher K. Waters.*

The primary architectural feature is a foundation wall, constructed out of roughhewn Liberta Greenstone, carved only on the facing side (Figure 7.2). The southern half of the structure is comprised of two courses of dry stone without any mortar binding the stones together. The northern half of the structure follows the uplift in the underlying geology,

reducing the height of the foundation wall from two courses to a single course before almost completely disappearing on the western side. The only remains of a structure there are a few small stones, set into a hard-packed gravel and loose mortar bed, although the mortar is not poured. Rather, it is repurposed construction debris poured on the underlying geology to create a flat, stable platform. A door swell stone, along with an iron strap hinge found in association, appear along the southern wall, opening towards the cliff face and away from the rest of the fortification.

The drystone foundation wall is only 55 centimeters thick. It's small size, lack of mortar binding the stones in the foundation, and absence of mortar on the tops of the stones, indicates that this foundation supported a wooden structure. The homogenous, loosely compacted soil matrix, and lack of stone or ceramic floor tiles also indicate a wooden floor. Pipe stem dating from kaolin tobacco pipe stems found within feature [UC004] (n=124), yielded a statistically significant date of 1727.56 using the Binford Method (1962; South 1977). The Mean Ceramic Date for inside the walls of [UC005] was calculated to 1801.29.

The discrepancy between the calculated pipe stem date and the calculated ceramic date is important. Construction on the fortification started in 1689, and continued to be occupied into the twentieth century. The site on which UC004 sits is in a prominent part of the site, as evidence by the earlier flagpole base carved into the bedrock in the middle of the structure. Individuals living at the fort would have used this spot to congregate, including engaging in leisure activities such as smoking (see Agbe-Davis 2015; Fox 2015). That smaller gauge tobacco pipe stems—and therefore more recent in age—are largely absent from the archaeological record inside the structure suggests that that space was no longer available for

deposition, making a construction date around 1730 plausible.<sup>3</sup> After construction only the smallest of materials could enter into the underlying matrix, falling through the floor boards, causing a different artifact patterning. A dearth of ceramics dating to the first half of the eighteenth century and a new pattern of creamware ceramics distributed evenly inside and outside of the foundation walls, suggests that the structure was abandoned and torn down in the 1760s. There are at least four recorded hurricanes between 1730 and 1760 which could have damaged or destroyed this building, especially if the structure was largely neglected from lack of use (Gaspar 1985: 225; Langahan 1844: 200; Oliver 1899: cii, cxv; Waters 1964: 9).

During excavation the building proved to be an enigma: too small to be a barracks; too poor for an officers' quarters; too temporary for the gunner's house; and too prominent a location for a storehouse or temporary shelter for enslaved labor. The choice of a timber structure suggested haste, especially in relation to the large stone barracks structures meters away which already appeared in early iterations of the fort (CO 700 ANTIGA1: 1713). The historical record points to several possibilities for timber structures. The first mention of wooden structures on Monk's Hill comes from a report after the 1707 hurricane in which the Governor records that he, "finds that most of the Houses there blown down...for as much of the boards & timber of the public, & private houses are so mixt, that it not possible to distinguish which belongs to the publick or private persons, (CO 9/1: 7 September 1707). He then asks the Assembly to consider an Act to restore as many of the public houses for sheltering poor white families in case of an invasion; an action which the Assembly rejects. Instead, they focus on the private houses constructed on Monk's Hill, stating their belief that, "Wee believe it just, & reasonable that every

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<sup>3</sup> In contrast, the mean tobacco pipe stem date for pipes found outside the walls of UC004 was calculated at 1752.46 (n=45), suggesting that the spaces immediately around the structure were still being used (Waters et al. 2016: 14-15).

person who had a house there, before the Storm before allowed the Liberty of putting them up again, if they shall think convenient,” (CO 9/1: 7 September 1707). This rejection is corroborated in 1709 in a long letter by Governor Daniel Parke to the Board of Trade, complaining about his tumultuous relationship with Antigua planters which he saw as backward, arrogant and ignorant in all matters, especially military. In a particularly vicious attack, Parke accuses his predecessor Christopher Codrington III, a sitting member of the Antigua Council in the Parke administration, of starting the tradition of building small wooden houses on Monk’s Hill for community members, especially targeting a series of “little square houses on the walls, because it looked well at sea,” with the implication that the entire project was aesthetically pleasing, rather than militarily sound (CSPWI: 26 June 1709 #156).<sup>4</sup> Parke additionally notes that with so many small wooden structures, a single explosive shot could ignite the entire fortification, thereby rendering this purported refuge into a deadly conflagration.

Nevertheless, the presence of private housing on Monk’s Hill as the island’s citadel should not be surprising. Buisseret (1973: 5), sees this pattern of private spaces within the fortified boundaries of an island’s central fortification as commonplace, with Brimstone Hill, on St. Kitts as perhaps the best example of this. The Governor and several of the island’s prominent men built permanent stone buildings on small plots of land within the 42-acre site. Monk’s Hill, at only 9 acres, however, is significantly smaller, and permanent private structures seem to not have been possible. Instead, smaller, private buildings likely were built throughout the site in times of strife. After the conclusion of Queen Anne’s War (1714), Monk’s Hill was mostly

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<sup>4</sup> Interestingly, this may also indicate a more devious plot to make the fortifications look larger and more impressive from the sea as a deterrence tactic. While no longer extant at Monk’s Hill, additional stone walls are present at Fort St. Louis in Marigot, Saint-Martin. These walls are not attached to any building, and are intermittently built across the interior of the fortification. Standing in the fort, these walls do not provide any purpose. From the base of the hill, and presumably from the sea, the additional walls make the fortification look much larger, creating an impression of additional strength.

neglected, but with the War of Jenkins Ear (1739-1748) resuming hostilities between the French and British, a new spate of house building on Monk's Hill took place. Governor William Mathew, writing to the Assembly about his public and private moves to secure the island, wrote, "I am framing a House 15 ft. wide and 22 ft. long to set upon Monks Hill for my Family it Exceeds the Dimensions Mentioned by the Act and yet Little Enough for a Family, I would loose no time in putting it up if I had any assurance it would go to my Family," (CO 9/12: 21 August 1739). His concerns about the size of his house were later addressed in the Act, which laid out:

That all other persons for the Security of their Families shall choose to have the Lodged in the said Fortification are hereby Impowered and allowed to built or set up within the same Houses for their Family use, provided that no one Family shall have more than House, which shall be Framed of Timber and Cover'd with Boards and Shingles, and not to Exceed the following Demensions (viz.t) Twenty two Feet in Length and Fifteen Feet in Breadth from outside to outside and Eight Feet in Height to the Top of the Plate, the property of which House shall be and remain to the person who shall Erect and Build the same and to his Heirs as long as the same shall stand and be within the said Fortification (CO 8/9: 43).<sup>5</sup>

Given the size and location of [UC004], it is likely that this feature was one of the private residences of Antigua's elites constructed in case of an invasion. The location, on the bluff above the lower citadel, at the furthest point from the poor house, and upwind of almost the entire fortification, suggests that the person who managed to stake this claim wielded significant influence to receive this prime location. Steady breezes, and a modicum of privacy, with a door facing away from the crowded conditions of the fortification.

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<sup>5</sup> The prevailing concept behind providing shelter for women and children was the idea that if a militiaman knew that his family and possessions were safe, he would be able to concentrate on fighting, and be more willing to sacrifice his safety knowing his actions protected his family. Interestingly, this concept was initially extended to enslaved Men under arms, "That as further encouragement and pledge of their Fidelitie the wives and children of Such entitled negroes be Secured with our own att Monks hill" (NAAB 316: 7 February 1701/2). This acknowledgement of humanity, however, was completely absent in the above Act, explicitly allowing only one slave per family to act as a servant, and ordering that the remaining enslaved persons would do their utmost to not be captured.



Since Antigua was never attacked, it is likely that the building was never used as intended, and rather sat throughout the war untouched until the building either rotted away or fell over in a storm. This structure [UC004], however, represents the underlying martial landscape as it was understood by Antigua's elite. First, they instinctively grasped that their own defenses were weak despite their bluster and bravado. A determined enemy could breach the island in several places quickly, thereby forcing a terrestrial confrontation in the interior of the island. The fortifications and coastal batteries that they built were more for protection from commerce raiding and maintaining a little bit of space between the long coastline and the dangerous shipping lanes. The 1742 Act laying out how much space each private individual got on Monk's Hill, also limited the number of enslaved persons allowed within the fortification to the "Heads of Families of slaves, or Children of the heads of families of slaves to Secure the others of their Gangs of Slaves from Running to the Enemy," (CO 8/9: 43). Commerce, and the protection of capital investments were considered the primary focus of these men. They wanted to secure trade, and coerced their enslaved laborers into staying on the plantation by taking hostages into the fort, implying that harm might come to them should someone run away. Indeed, the underlying tone suggests that enslaved persons without the walls should make every attempt to evade capture should an invasion occur. As enslaved labor represented one of the largest, if not the largest capital outlay by a plantation owner (Menard 2006: 123-136), it shows that the focus of the island's elites on mitigating personal damage, rather than establishing a means by which the island could be better defended.

Second, the island's elites were well aware of how successful military campaigns in the region were. Antiguan planters had family members and trade contacts spread across the Atlantic World, and news from other parts of the world, especially nearby islands, quickly

landed on Antigua's shores (for examples of Antiguan families see Barber 2011; Dator 2015; Gragg 1993; Hall 2001; Sheridan 1957; 1961; Thomas 2011; Zacek 2007). Some defenses lend hope, like the abortive attacks on Martinique in 1674, and 1759, and the successful resistances by local forces on Guadeloupe in 1691 and 1703, and Montserrat in 1712, (Buisseret 1973). If attacked, hiding behind fortification walls did work on occasion. Waiting offered both the hope for reinforcements, and, from long experience of living in the Caribbean, force a destructive siege (Buckley 1998; Campbell 2010; Crewe 1993; McNeill 2010). Disease cut larger swaths of soldiers down than active fighting, and fresh troops from Europe were particularly susceptible to tropical maladies. Thus, the longer a defender could hold out, the more likely an invading army had to retreat due to increasing casualties.

Successful defense through attrition only rarely succeeded, however. Buisserett (1973: 75-76), observes that deodands only existed on a particular type of island which he defines as all, "island[s] of moderate military strength and reasonable size." The larger Greater Antilles, he further argues, relied on the "powerfully fortified cities like Havana, Port-au-Prince and Port Royal." Here, Buisseret overstates his evidence by ignoring a key point: the larger islands had hinterlands into which populations could retreat into intact, and conduct a successful resistance for decades. Indeed, the Maroons on Jamaica neatly illustrate this point, with some of the earliest communities dating to the English Invasion in 1655, and fighting the combined Jamaican and British forces to a standstill in the eighteenth century. Antigua, and the other Lesser Antilles, did not have this option. Once an enemy landed, running and hiding in the hinterland was impossible making retreating behind walls the only remaining option. Establishing buildings to receive the community, as they did on Monk's Hill, was only the first step in

fostering a sense of security and offered hope for the planters caught in cycles of increasing geopolitical warfare.

### **How the Antiguan Legislature Seized Absolute Control**

To better illustrate the underlying localism driving Antigua's defense policies, we need to investigate the political battles between the governor Daniel Parke and the Antiguan elites concerning the direction of Antigua's fortification strategy in the early eighteenth century.

Daniel Parke's tenure as Governor General of the Leeward Islands (1706-1710) was as colorful as controversial. Upon his arrival in 1706, Parke's identity and policies chafed against the newly established Antigua planter class. His administration was fueled by pursuing personal vendettas, seduction, mismanagement of public funds, and ultimately using his office as a blunt and violent instrument to force the planter elite into submission to him and the Crown. His administration ended abruptly in a planter driven coup organized by members of the Antigua Assembly, resulting in the deaths of some thirty individuals, including Parke (Bourne 1951; Dyde 2000; Webb 2013; Zacek 2010). Whereas others have written about Parke's social and political blunders, one of the oft cited, but little investigated aspects of the tensions between Parke and the Antiguan government was in establishing defense policy.

Parke, a Virginian by birth, was appointed Governor General and Commander-in-Chief of the Leeward Islands as a reward for his service under the Duke of Marlborough in the early years of Queen Anne's War.<sup>6</sup> A competent soldier with experiences fighting in some of Europe's largest campaigns to date, Parke was unimpressed with Antigua's defenses, especially the ongoing construction at Monk's Hill which had been worked on intermittently by the

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<sup>6</sup> Parke was selected by Marlborough to deliver the news of the Allied victory at Blenheim in 1704 to Queen Anne. His good tidings and apparent charm and good looks won him favor with Queen Anne, who promoted him and eventually offered him the Governorship (Webb 2013).

Antiguan government for 16 years already by the time he arrived. Previous governors, attempting to rally the Antiguan planters into thinking about their own defenses, largely failed to impress upon the island's elites that they needed to do more for their defense than throw up a few gun batteries and proceed with the construction of Monk's Hill (Parker 2011). Christopher Codrington II first initiated a program of defense during his tenure (1690-1699), a cause taken up by his son and successor Christopher Codrington III (1699-1704); but neither man felt that they were taken seriously by the Antiguan legislature who controlled the treasury (Bourne 1951). Parke, noting this intransigence, devised a number of political workarounds, and when that failed ignored the Antiguan Legislature all together, attempting to wrest control away from the planter class.

One of the areas in which Parke thought himself above the will of the Antiguan legislature was in defense. As a veteran officer, Parke saw himself as a "master soldier," while, "the provincials were utterly inexperienced in modern warfare," (Webb 2013: 277). He derisively wrote:

For instance, there were severall great gunns, 24 pounders, which were to guard the principal harbour, St. Johns; these gunns he removed at a prodigious expence to the topp of Monkes Hill, where they were of no manner of use: for if Monkes Hill had been attacked, if they should have fired those gunns often, the concussion wou'd have throwne downe the wall, which for the most part is made onely of loose stones without mortar; at the same time left the harbour, and consequently the towne exposed; the biggest gun left being a 9 pounder, except 2 very bad 12 pounders, at some distance from the Fort, to defend the Roade, but they were found too short for that purpose, not being able to protect a shipp rideing in the Roade from a privateere that cutt her out (CSPWI: 26 June 1709, #156)

He further commented that the walls of the citadel at Monk's Hill were made from loose stone, comparing them to the garden follies erected by the Duke of Beaufort on his estate in England. His derisive conclusions were confirmed by Colonel Lilly, an Ordnance officer whom Parke brought up from Barbados to view the island's defenses. Lilly wrote in his official report that,

“there is not such think in the whole Country as deserves the name of a Fort for that which is built on Munks hill is not so Since an Enemy may upon his first Landing (without having occasion bringing Canon against it) easily made himselfe master of it with Sword in hand,” concluding, “I do hereby utterly Condemn Munks Hill as unfit,” (CO 9/1: 23 April 1709). Rather than continue that work, Lilly supported Parke’s attempts to entrench and fortify St. John’s using the military engineering experience he gained on the battlefields of Europe, agreeing that this work was the best option for Antigua’s continued resistance in case of an attack.

The Antiguan elites in the Assembly and Council did not take kindly to being told that they did not have the required expertise, and refused to give up on Monk’s Hill. To add injury to insult, they refused to supply any enslaved labor with public funds to Parke in his quest to fortify St. John’s, arguing that Monk’s Hill was still the priority. This disregard for the expert opinions of two experienced military men comes from the Antiguan’s desire to remain in control of their own politics just as much as it was a backlash against the increasingly authoritarian measures which Parke proposed. For the planters, the defensive advantages of elevation and remoteness, as well as the intimidating profile of Monk’s Hill providing comfort and feelings of security to their population outweighed the military advice being offered.

Bourne (1951: 110), has the most generous interpretation of Parke, summing him up as, “a soldier of reputation,” and, “a brave and loyal defender of the royal prerogative in the plantations,” in spite of his avaricious and arrogant nature. Across the scholarly literature on Parke, while his faults continually outweigh his merits as a governor, the scholarly blame for Parke’s assassination tends to fall at the feet of the Antiguan elites who were resistant to new attempts to wrest control away from them and vesting all of the decisions in the crown and its

representatives (e.g. Webb 2013; Zacek 2010). From a military standpoint, Parke was probably correct. However, his high-handed approach guaranteed pushback from the Assembly who perceived his approach as infringing on their natural rights as Englishmen. Whereas previous governors complained about the intransigence of planter politics (e.g. Parker 2011), Parke was an especially egregious example of Crown overreach. With the English Civil War, and the Glorious Revolution still within living memory, centralized authority was still suspicious. Daniel Parke's assassination and the subsequent mass amnesia suffered by the Antiguan population, forcing the Crown to eventually drop all charges against conspirators, solidified the island's autonomy from rigorous oversight and firmly established the Antigua Council and Assembly as legally equal, and politically stronger than the governor.

### **The Shifting Martial Landscape**

With establishing the absolute control by Antigua's elites over defense policies by the deposition of Daniel Parke, and the underlying principles of defense manifested in protection of personal property in the citadel at Monk's Hill, we can expand the scale of analysis to include how the rest of the island conformed to the wills and whims of the island's elite. Antigua's fortifications, as we have seen, did not conform to military engineering standards. They were largely out of place to effect proper a proper defense of Antigua's vulnerable coastlines from an external attack. They were hastily built, poorly equipped, and suffered under little oversight from men who had neither the experience nor desire to affect control over their charges. They did not even adequately improve internal security over the vast enslaved population. They were not part of any grand imperial strategy, and indeed, were jealously guarded from any metropolitan oversight. They were neither monumental nor impressive in their time.

Rather than viewing them as military sites, their role as manifestations of public policy, specifically public policies developed by and enacted in favor of the plantation elites offer not only a stronger interpretation of this spatial distribution, but also can be used as a proxy for investigating the heterogenous landscape and changes in how the landscape was conceived of and organized. In addition, defenses are physical manifestations of fears: what is considered valuable and worth protecting at the expense of something else. They are only built and expanded during times of conflict or imminent conflict. Once an impending threat passed, either with the restoration of local naval superiority, or general war fatigue, the frenetic building activity largely ceased until the new rumors of impending attacks arose. Peace meant neglect and abandonment, only for the process to start over again with new hints of warfare.

*Fort Hamilton, The Cripplegate, and the Defense of St. John's Road*

The history of Fort Hamilton, for instance, neatly encapsulates the contrary and shifting desires of the Antiguan government and highlights their lack of experience and education in all things defense. Situated on a small headland between Fort Bay and Runaway Beach approximately 1,450 yards north of Fort James, construction on a formal stone platform was started in 1727, in order to properly mount the cannon existing there (CO 9/6: 17 March 1726/7).<sup>7</sup> With the building materials, money and labor already appropriated for the project, the Antiguan Assembly ordered a committee to view the platform and assess what needed to be done to complete that work. The final work order to complete the fortification came a year and a half later (NAAB 322: 12 October 1728), and armed with three 12-pounders and two 5-pounder cannons, making it the heaviest armed fortification other than the principle fortifications of Fort James, Fort Charles

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<sup>7</sup> During construction of Fort Hamilton, it was noted that one of the cannon did not have a touch hole and required drilling (CO 9/6: 11 September 1727). Blocked touch holes are a byproduct of intentional fouling, suggesting that this cannon may have been intentionally sabotaged in a raid although this is speculative.

and Great George Fort on Monk's Hill (CO 152/18/T99). With increasing threats from Spanish privateers, Fort Hamilton functioned key defensive location designed protecting Antigua's shipping and surpassing the importance of the Cripplegate Battery, which was abandoned by 1740 (CO 9/6: 30 May 1727).

By 1740, the threat to shipping anchored on St. John's Road increased dramatically with the beginnings of the War of Jenkin's Ear. In a complete reassessment of Antigua's fortifications, the previously imperative Fort Hamilton was now considered a major liability to the defense of St. John's (Figure 7.3). The crux of the issue debated by the Antiguan government had to do with the forts proximity to Fort James. Rather than providing additional

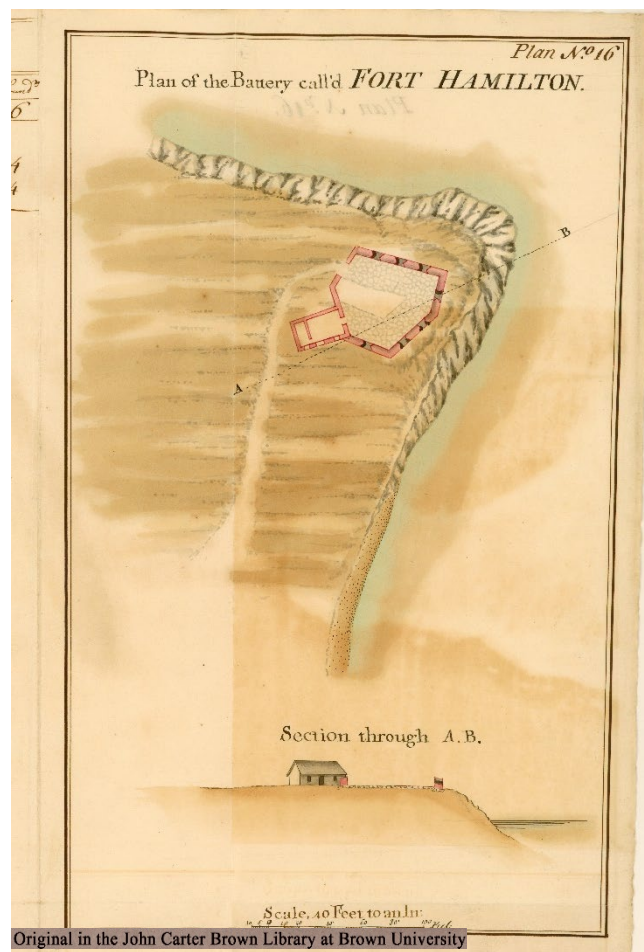


Figure 7.3: Fort Hamilton as rendered by William Kane Horneck (1752). Courtesy of the John Carter Brown Library.



support to Fort James by protecting the landward approaches, Fort Hamilton was now considered too exposed and prone to rapid seizure by an enemy attack. The fear was that should Fort Hamilton fall, the large guns mounted there would be turned upon and used against Fort James (NAAB 324: 10 April 1740). The immediate solution by the Antiguan legislature was to remove the three 12-pounder cannons already at the fortification, and mandate that no guns larger than 6-pounders were to be stationed there. This move tacitly underscored the vulnerability of Runaway Beach to an invasion and recognized that perhaps Antigua's fortifications were inadequate to the task of defending the island. On the surface, the response to reduce the potency of a fortification to protect other parts of the island may make sense. However, as with so many other defensive projects, the island's decisions makers did not think this decision through strategically. Whereas in the 1740s the concern was an enemy using Fort Hamilton's guns against Fort James, they forgot that Fort Hamilton protected the landward approaches to Fort James. While this may have been an oversight at the time, the architects expanding Fort James in the 1730s relied on Fort Hamilton to provide defensive depth. Because of this, they did not include any cannon emplacements which faced the landward approach to Fort James (see Figure 7.4). By underarming Fort Hamilton because of its threat to Fort James, the Antiguan elites inadvertently made Fort James even more threatened.

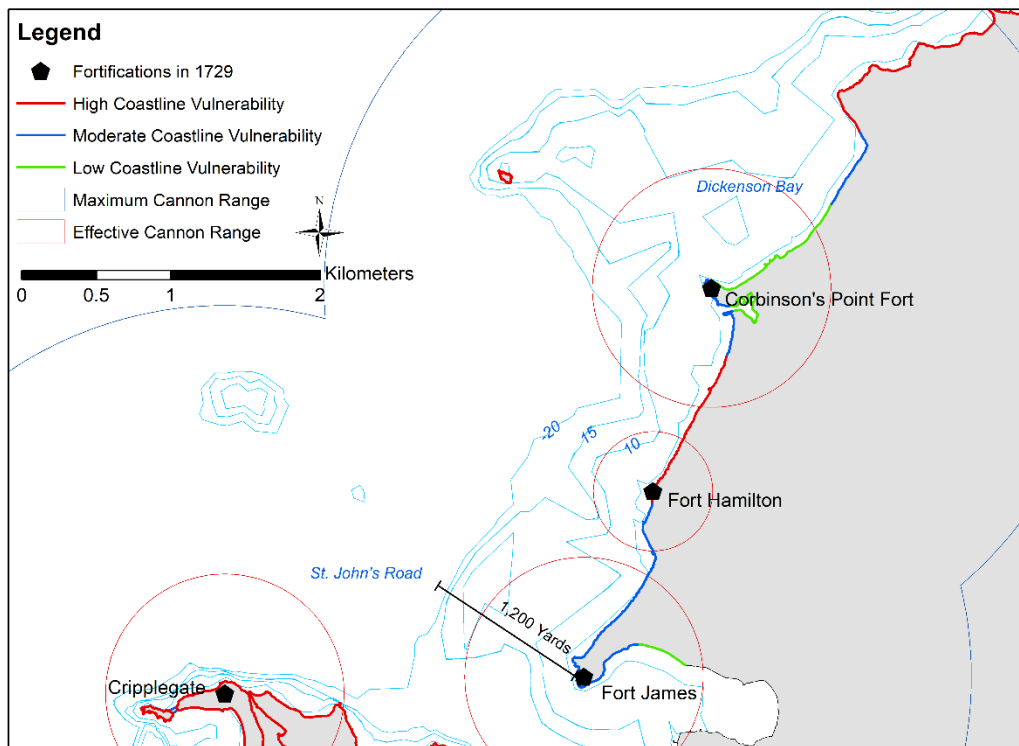
Defensive priorities instead were given to Fort James, the principle fortification around St. John's, and the second largest fortification on the island after the citadel at Monk's Hill. The location of Fort James, at the entrance to St. John's Harbour, is complicated. While protecting the harbor was a defensive priority, the shallow water in front of Fort James and poor positioning of the seaward firing platform limited the utility of this fortification. With the sandbar blocking the entrance to St. John's Harbour, in addition to the prevailing easterly winds preventing all

square-rigged vessels from sailing into the harbor under their own power, shipping was largely confined to the Road in front of Fort James, some 1,100 yards away. This puts the Road outside of Fort James' effective range for the largest guns, and even pushes the maximum range for smaller caliber weapons. Additionally, the fortification is situated just above sea level, creating a situation whereby should vessels approach Fort James and the shipping anchored on the Road, the gunners would have to fire through, rather than over, the merchant vessels they were tasked with protecting. Indeed, this situation was recorded, with privateers cutting vessels out from under Fort James (e.g. CO 9/1: 25-26, 5 September 1704; NAAB 324: 10 July 1746), and ultimately leading to the expansion of the battery on Cripple Gate which is at a higher elevation and somewhat closer to the Road (NAAB 329: 24 September 1778). Even from the landward,

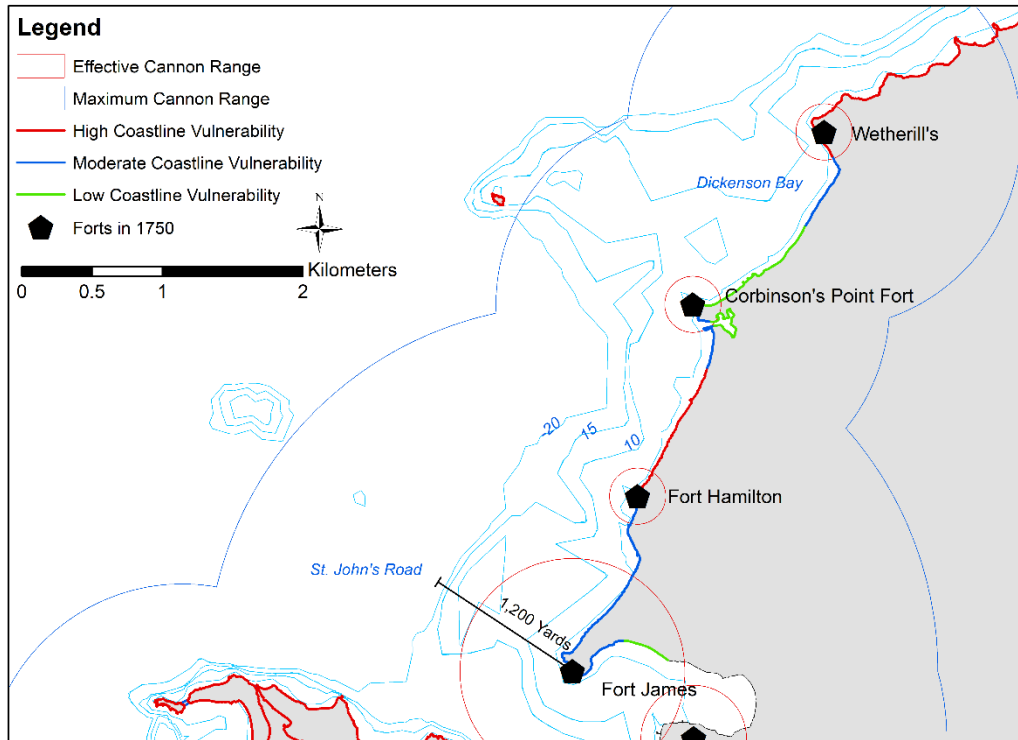


*Figure 7.4: Survey image of Fort James with projected cannon trajectories. Note the lack of coverage to the northeast, up the peninsula and towards Fort Hamilton, leaving Fort James seriously compromised. Illustration by Christopher K. Waters.*

the fortification was poorly defended, with counter batteries established by the 1750's to provide flanking fire under the circuit wall, but not a single embrasure opened up the peninsula to provide additional artillery support. This error was only noticed and corrected in 1778 (NAAB 329: 17 September 1778), nearly 40 years, and two wars, after the expansion of the fortification in 1739 (CO 8/7: 46). Despite this, Fort James was the principle fortification around St. John's Town and continued to receive the most attention from the Antiguan Assembly and Council (Figures 7.5 and 7.6).



*Figure 7.5: State of the defense around St. John's Road in 1729 with cannon projections. Illustration by Christopher K. Waters.*



*Figure 7.6: State of St. John's Road defenses with cannon ranges in 1750. Note that the battery at Cripplegate is no longer present and the defensive circle around Fort Harmon has shrunk considerably. Illustration by Christopher K. Waters.*

### *Shifting Defensive Patterns on the East Coast*

Other parts of the coastline considered highly vulnerable experienced a different trajectory. The east coast was considered vulnerable in the late seventeenth century, engendering a variety of defensive schemes. Deep water, favorable wind conditions, access from the open Atlantic, and above all, its remoteness, caused the Antiguan elites consternation. While Nonsuch Bay is less vulnerable than the coastlines stretching just south of it because of its narrow entrance, shallow water, and the difficulty which a square-rigged vessel would have trying to leave, nevertheless, the Antiguan government considered this area an early priority for defense. For raiders, on the other hand, the bay offered an opportunity to penetrate deep into the fertile central plain, which also served as a conduit for transporting sugar, rum and molasses to the customs houses on the other side of the island. This made this bay a lucrative target in the eyes of the Antiguan planters

who initially focused on placing several guard houses and small gun platforms around the long coastline of Nonsuch Bay. In 1704, Antigua's elites worried about "The Frontiers, and other parts of the Island Lying naked," (CO 9/1: 27 July 1704). Several years later, in an acknowledgement of the favorable sailing conditions along the east coast the Assembly recorded that, "being to Windward and more lyable to a surprise," the east coast constituted a major threat to the security of the island (CO 9/2: 19 August 1712). Between 1704 and 1712, several guard houses were erected along this coast to provide early warning against an attack or raid, and offer some defensive deterrence. While these guard houses never grew defensively beyond one or two small pieces of ordnance, the Antiguan elites, throughout the first decades of the eighteenth century, constantly returned to this part of the island and improve its defenses. In one of the more creative attempts, they developed a scheme to settle disbanded veterans from a specially regiment raised in England to be sent to Antigua and be disbanded at the cessation of hostilities (CO 9/1: 27 July 1704). These veterans would create the necessary manpower reserve to maintain control over this remote coastline in peacetime, and could be brought together to repel an attack during war.

The scheme to settle veterans along the east coast was never expanded upon and the concerted effort to keep this part of the island populated with white freeholders never took off properly. The white population, after a rise into the 1720s, went into a slow decline. Other areas of the island, such as English Harbour or Body Ponds, were much more popular areas for white farmers to settle on, and the east coast remained underdeveloped. With the shifting priorities away from the turn of the century holistic defense and need to control the entire island, to one more interested in focusing on specific, economically prosperous areas of the island for the purposes of defense, this part of the island suffered. Instead, the Antiguan government initially

relied on a series of guard houses. The first recorded guard house was built at Piggs Point in 1704, with a second guard house erected across the bay at Muddy Cove (Bay) by 1707 (CO 9/1: 5 September 1704; CO 9/1: 8 August 1707). By 1733, both of these guard houses were considered useless, and indeed, they are too far inland to prevent raids or attack farther up the coast. The Assembly ordered the guard house at Muddy Cove, “to be demolish and a New one built at Flat Point and the Material of the former as far as can be usefull to be carryed to the latter,” while the guard house at Piggs Point was to suffer the same fate, moving farther east to Hungry Hill (NAAB 322: 21 February 1733/4). The Piggs Point project, however, was never carried out, before finally deciding to fortify Drop Point in 1744, which eventually became Fort Harmon (NAAB 324: 26 June 1744). Both guard houses were armed with one cannon. In 1744, Flat Point Battery was expanded to a two-gun platform (NAAB 324: 1 June 1744), before disappearing from the records completely from the documentary record.<sup>8</sup>

Nonsuch Bay represents the reactive nature of the Antiguan elites, coupled with their inexperience in developing appropriate defenses. Assessing each of these sites through the coastline vulnerability model assessing Antigua’s defensibility, Muddy Cove and Piggs Point, while both deep in the bay, offer some protection, even with small caliber weapons. Flat Point, on the other hand, can only project fire over a small part of the navigable Nonsuch Bay, and only then at effective ranges of only the largest cannon. Most of the sea in front of the fortification is shallow or part of a network of reefs and shoals which hinder navigating closer to the fortification. Rather than identify the choke point, the narrow channel between Green Island and

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<sup>8</sup> No traces of any of these sites has been reported. Muddy Bay Amerindian site was excavated by Dr. Reg Murphy (1999), and has been since incorporated into a private resort. The area around Flat Point Battery was surveyed in 2016, and a previously unknown late-Ceramic age Amerindian site was found, but there was no trace of the battery. Nicholson (1994), who had more access in the 1960s and 1970s, visited this area extensively and also did not find any traces.

Drop Point on the mainland as an effective way of controlling Nonsuch Bay, the Antiguan government spent resources on placing several negligible fortifications. The purpose, it seems, is rather than provide an effective defense, the several guard houses were the physical manifestations of needing to feel secure, whether or not those fortifications provided security.

Even after successive raids and privateer captures off the eastern coastline and in Nonsuch Bay, appropriations to establish the first proper gun platform along this vulnerable coast, Fort Harmon, was only built after “Two Vessels have been forced ashore by the French Privateers near this Battery both which might have been Save had there been Two or Three Great Guns there,” (NAAB 324: 27 January 1746/47). Despite construction in 1745 during the height

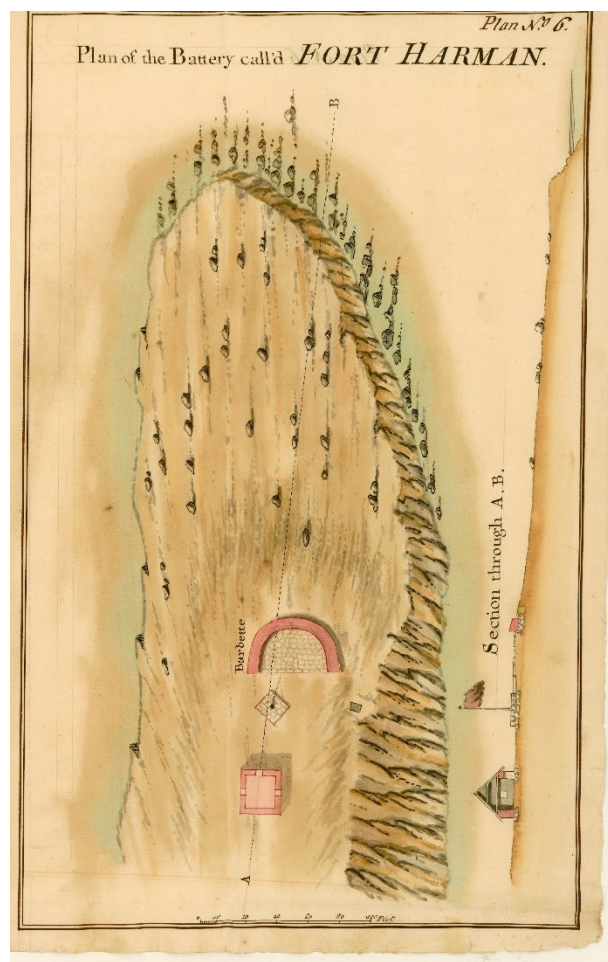


Figure 7.7: Rendering of Fort Harmon by Kane William Horneck (1752). Original in the John Carter Brown Library. Courtesy of the John Carter Brown Library.

of the War of Austrian Succession, cannons only arrived at this fortification in 1747 (Figure 7.7). Even then, the only cannons the Antiguan government was willing to send to Fort Harmon were castoffs dug out of the sand and raised out of the waters of Willoughby Bay; another remote part of the island far away from the plantation centers in the north, west, and center of the island. Furthermore, ammunition for the guns only arrived in 1749 (CO 9/20: 8 August 1749). Peace, ending the War of Austrian Succession, however, was concluded 18 October 1748. Nevertheless, Fort Harmon continued to be one of the primary fortifications protecting Antigua, and the only fortification on the eastern coast of the island. The delays in getting the appropriate materials to this critical fortification, however, speaks to the low defensive priority the Antiguan elites gave to this part of the island by the middle of the eighteenth century. Their priorities, and interests, were elsewhere.

### *Defending the South Coast*

Perhaps most representative of the reactionary policies and changing landscape priorities came the rapid and expensive expansion of fortifications at the beginning of The War of Jenkin's Ear (1739) and subsequent devolution into the War of Austrian Succession (1740-1748). In six weeks in 1739, the Antiguan government spent some £13,000 in expanding Antigua's fortifications along the south coast, and a further £12,000 in 1742 after the French entered the war (CO 9/20: 8 March 1749).<sup>9</sup> Three stretches of coastline saw an increase in the number of fortifications: English Harbour to Willoughby Bay, Cades Bay northwards to Fry's Beach, and the Five Islands Harbour. Calculations from the defensibility model indicate that these stretches

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<sup>9</sup> During this time, the Antiguan government also spent another £7,000 building the Barracks on Rat Island (Fort St. John), and owed an additional £4,000 to finish the construction for a total expenditure of £36,000 related to construction and maintenance of fortified sites only. This does not include subsisting the soldiers or expenses accrued by the militia. For comparison, the annual revenue for 1748 amounted to £13,301.15.3 ½ and £7,200.2.5 ¼ in expenditures (CO 9/20: 9 March 1748).



of coastline decrease in vulnerability, with the area from English Harbour to Willoughby Bay being most vulnerable, the west coast from Cades to Fry's moderately vulnerable, and Five Islands calculated as being of low vulnerability (see Chapter 3).

The coastline from English Harbour to Willoughby Bay received a frantic amount of work between 1739 and 1742. Already identified in 1712 as a vulnerable coastline (CO 9/2: 19 August 1712), the Antiguan legislature appropriated money to expand the defenses around English Harbour, build Fort Isaac, Fort Christian and Indian Creek Battery, and connect these latter three fortifications with a network of trenches to Fort William on the northern side of Willoughby Bay (NAAB 324: 16 November 1740; NAAB 324: 24 April 1745). Still not trusting the fortifications, Fort Isaac requiring reconstruction due to a contracting error which made the parapet so high that the cannon could not fire over it (NAAB 324: 26 August 1740), the Council proposed that the entrances to Mamora Bay and Indian Creek be filled up with stone, thereby preventing enemies from using those bays to land an invasion force, "as those Two place are Represented to be of no use to the Inhabitants thereabouts," (NAAB 324: 3 May 1745). This proposal came despite the trepidation of the Assembly which, in an earlier discussion, suggested that instead of filling in the bays permanently with stone, that they should be instead blocked with prepositioned sailing vessels which could be sunk across the harbor if necessary, since it would spoil the harbors (NAAB 324: 10 April 1745). The plans were ultimately abandoned because the Council decided that the four guns mounted at Fort Christian were sufficient, thereby saving the public treasury money (NAAB 324: 20 May 1745/6).

This whole episode encapsulates the reactionary policies and inexperience of the Antiguan government. The massive construction projects undertaken along this coastline, including the trenches which reportedly stretched around much of Willoughby Bay, suggest that

there was a considerable fear that the French would attack there. Buried within their debates, however, is the tension between knowing the threat to this area and contrasting that with the social and economic margins of Antigua's landscape. The Council is willing to dismiss the economic impacts on these two harbors because none of them have possessions near there. Robert Baker's (1748) map of Antigua, indicates that this is 10 Acre Land, with the nearest plantation several miles away. Oversight by the political committees designated to watch over these areas failed in their duties in regard to the construction mistakes at Fort Isaac, further reinforcing the concept that this area of Antigua was marginal in the elites' concept of the landscape.

#### *The Rise of St. Mary's and the West Coast*

Contrasted to the rapid decisions made to protect a threatened coastline, is the expansion of fortifications along the other two stretches of coastline from Cade's Bay to Fry's Beach in St. Mary's Parish, and the area around Five Islands. The vulnerability model above shows that these stretches of coastline exhibit a moderate to no vulnerability. Yet, the process of fortifying these coastlines with batteries and guardhouses during the War of Austrian Succession, deviates significantly from the same processes affecting the south coast discussed above. For instance, whereas the first European settlements congregated around the southern coast, by the turn of the eighteenth century the center of political, social and economic life in Antigua moved to St. John's in the northwest of the island. By the time Herman Moll recorded Antigua's plantations in 1740, this region was largely abandoned, with only the legacy plantations remaining.<sup>10</sup> St. Mary's parish, on the other hand, underwent rapid expansion in the early eighteenth century, as

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<sup>10</sup> Baker (1748), explicitly indicates that the original Warner windmill was old, suggesting that it was no longer in use. The Brown Map (1782) shows the area deserted except for two small, 10-acre cotton plantations, stating that the area was only good for pasturing cattle or sheep, and that the old Warner plantation now existed as a livestock ranch.

the central plain and northern half of the island were largely taken up by earlier plantations. As late as 1707, Old Road, the anchoring site for this stretch of coastline was described in a petition to the Antiguan legislature as, “And whereas it is very well known to many ‘tis a palce of noe Trade, or Traffick, nor noe great resort of Gentry” (CO 9/1: 9 August 1707). Within the next several decades, this area expanded rapidly, with small plantations expanding into some of the largest and most productive on the island. The planters along this stretch of coastline constituted a new wave of landowners, with their plantations taking time to become profitable. By the 1730s, the relative newcomers to Antigua who established themselves along this coast, attained sufficient social capital to enter into the highest political echelons of Antiguan society, with representation in both the Assembly and the Council (Sheridan 1961; Zacek 2010).

The rise of these planters is reflected in the defense policies. In the 1729 Return (CO 152/18/T99), the only fortifications present along this stretch of coastline are a guard house at Pearne’s Point and a one-gun battery (7-pounder<sup>11</sup>) at Fullerton’s Point. By the end of the War of Austrian Succession, there are batteries at Cade’s Bay, Johnson’s Point, and Frys, and Pearne’s Point and Fullerton’s Point are both expanded (Figure 7.8). As a measure of their importance, these batteries are reported as having, “six guns lying useless at Cades bay, and four at Bermudian valley [Johnson’s Point Fort] for want of carriages,” representing approximately 10% of the serviceable cannon on the island stationed at these two fortifications (CO 9/22: 17 November 1756; Ordnance estimation from Horneck 1752). The stated purpose of this defensive wealth was that these, “two places are well situated for protecting the Navigation on the

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<sup>11</sup> 7-pounder either represents an ancient piece before the artillery establishment of 1717 in Britain, a foreign piece based on a different measuring system, or a smaller caliber weapon which has been refurbished by re-drilling the tube. Either way, the non-standard weapon size would make finding ammunition for this gun difficult, and the likelihood of this piece exploding during firing is likely dramatically increased (See Chapter 3).

Southside,” (CO 9/22: 17 November 1756). Indeed, the channel between the outer reefs and the coastline does allow for all but the largest vessels to pass between,<sup>12</sup> and the model indicates that this stretch of coastline is moderately vulnerable, especially to privateering vessels looking to impact trade or conduct raids against nearby plantations. But, it was only with the rise of a new

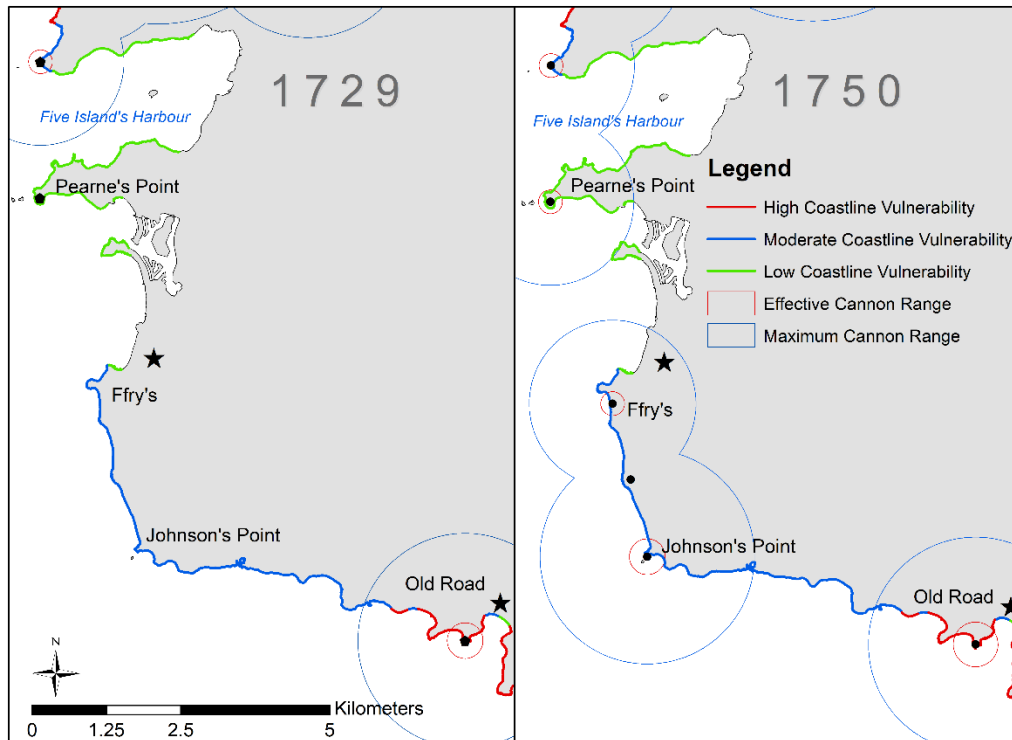


Figure 7.8: Comparison of the defenses around St. Mary's Parish in 1729 and 1750. Note the increased protection despite scoring only a moderate to no threat on the coastline vulnerability index. Illustration by Christopher K. Waters.

<sup>12</sup> This is based on the available bathymetric data from the coastline vulnerability model. Interestingly, Baker (1748), shows that the maximum depth of these channels is 18 feet (3 fathoms), which is slightly less depth than, but mostly consistent with, the vulnerability model. Moll (1739), on the other hand, charts minimum soundings as 12 feet (2 fathoms), which suggests that even the smallest vessels might have difficulty navigating safely through these channels. Lodge (1782), on the other hand, indicates minimum depths of 30 feet (5 fathoms), although the channel between the shoals off of Mosquito Cove (Jolly Harbour) and the Five Islands to be only 12 feet deep (2 fathoms). The inconsistency is probably due to a number of factors, such as the effects of hurricanes in scouring the sandy bottoms. A more consistent factor, however, is the fact that neither Moll nor Lodge actually visited Antigua, and were working from older maps and gathered data. Robert Baker, on the other hand, was the Surveyor General of Antigua. His map is significantly more precise in spatially locating terrestrial features than either Moll or Lodge, and therefore is probably more trustworthy. His depth soundings are also the closest to the modern bathymetric maps.

wave of Antiguan gentry who derived their wealth and standing from this region, that this coastline became worth protecting.

The most dramatic example of the shifting priorities of the Antiguan elites, mirroring economic and political developments related to shifting landscape priorities, is the series of debates around the construction of the two small batteries at Pearne's Point and Fullerton's Point at the entrance to Five Island's Harbour. Five Island's Harbour is complicated. While the vulnerability model indicates that this coastline has a low to no vulnerability rating, due in large part to the shallow water and inaccessibility of square rigged vessels in easterly prevailing winds, this, the French 1666 invasion landed in Five Island's Harbour, and the trauma from that experience continued to influence decision making processes decades later (Dyde 2000: 21).<sup>13</sup> For instance, Governor George Thomas (1753-1766), specifically referenced this attack to encourage entrenching the entire bay (CO 9/22: 19 August 1756). These works were completed and inspected seven months later, where the Council reported, "is of opinion that an enemy may land in Five Islands harbor and cross the salt pond out of reach of Musquetry or even Cannon from the Intrenchments," rendering these works useless (CO 9/22: 16 March 1757).

The defense projects at Five Island's Harbour at the beginning of the Seven Year's War were superfluous and defensively unnecessary, especially considering the same debate happened during the previous war in the 1740s. Five Island's Harbour was again part of the fortification

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<sup>13</sup> Oliver (1899: xxxii), lists the seven vessels used by the French, stating that they were pressed French West India Company vessels. The largest is rated as a 40-gun vessel, while the remaining are considerably smaller, suggesting that the smaller vessels may have been fore-and-aft rigged, thereby allowing them greater access into Five Island's Harbour. There could have also been more favorable wind conditions, or a number of other factors which are not recorded. Jeremy Black (2004: 168), cautions that, "The role of chance, serendipity, and opportunism, as well as of stupidity and the fear of making, or of appearing to make, mistakes, should, however, be considered more often in the outcome of battles and wars," allowing for these particular contingencies to exist, thereby beating the measured results afforded by geographical modelling.

expansion at the beginning of the War of Austrian Succession, and the defenses here were explicitly placed for political concerns. Pearne's Point appears on the 1704 return under the command of Colonel Pearne, a member of the militia and the landowner on which the guard house existed (CO 9/1: 5 September 1704). In the 1740s expansion, the guard house at Pearne's was ordered enlarged and augmented with an additional battery of four guns, and a committee was selected to inspect both Pearne's and Fullerton's Points (NAAB 324: 1 June 1744).

Reporting at the next meeting, the committee stated:

that we have been to view the said Two Points & had a Pilot to attend us and we find that a Battery upon either of the said Points will be of but very little Service to the Trade of this Island for no Ship of any Burthen can come within Gun Shot of either of them Except when the Wind is very far to the Southward which rarely happens, We therefore are of Opinion that the Expense of Building a Battery on Either of the said Points will be of very great Expense & of small Benefit to this Island (NAAB 324: 11 July 1744).

This report represents something rare in the historical record: the use of experts—in this case pilots—to create a thorough analysis of the environmental conditions, wind direction, and limitations, cannon ranges, to come to a reasonable conclusion: this area is unsuited for erecting fortifications. Indeed, the vulnerability model bears this out completely, demonstrating these same results. Pearne's Point is out of effective range of the main shipping channels completely, and Fullerton's Point is similarly limited. What this shows, however, is access to expert opinions was available to the Antiguan legislature elites, *and* that the elites themselves required assistance in coming to these conclusions.

This passage, however, is unique in the legislative minutes. Rarely were rarely referenced so explicitly, and the novelty of the situation seems to have amused the Antiguan legislature. The role of the pilots and the hands on activities undertaken by the committee were referred to a second time, with more explicit details about the methods they used:

Representations that Fullerton's Point, which is the North Point of the said Harbour was a Place fitter for this purpose and to answer those Ends, a Committee of our House have been at both those Points and in a Pilot Boat together with an Experienced Pilot have also been in the Channels thro' which Vessels bound into St. John's must Pass, and are of Opinion that a Batter on either Place of the Size & for the purposes their proposed is needless, as the Channels aforesaid are out of Gun Shot from both Points (NAAB 324: 31 July 1744)

Arguing from a sailing perspective, the pilots convincingly demonstrated that batteries on both points could not fulfill their intended roles in defending the island's shipping. Despite acknowledging this overwhelming advice, in the same passage, they agreed rather to place one battery of four guns at Pearne's, that they would erect a guard house at Pearne's and Fullerton's, and arm each point with two cannon each. While written off as a compromise, the defensive materials sent to this part of the island remained exactly as planned prior to the impact study, and the guard houses were built despite being fully aware that Five Island's Harbour was not vulnerable to an attack. Locating these fortifications there was, then, a political move, designed to allay fears from nearby powerful planters, flying in the face of their own discoveries.

The debate about protecting Five Island's Harbour in the middle of the eighteenth century is an illustrative example of how Antigua's defense policy, manifested in defenses, is rooted in the selective valuation of different parts of the landscape. Between the French invasion in 1666 and the emergence of the new planters in the 1730s, this area of the coastline was considered marginal by the island's elites. However, the emergence of new influential individuals precipitated new policies designed to provide comfort and personal security at the expense of other parts of the island and the public treasury.

Between 1670 and 1785, the only consistent trend in Antigua's defense policy was that decisions were made specifically in favor of the small island elite who controlled the entire process from site selection, construction, maintenance, and abandonment. Areas which were

acknowledged as being particularly vulnerable, such as the east coast or between Indian Creek and Willoughby to the south, were largely ignored until something drastic happened. Then, in an effort to rectify their neglect, plans were enacted which drew heavily on military aesthetics which did not directly endanger the wealth and income of the planters—such as filling up Indian Creek with stone to prevent enemy landings, but also permanently closing up that harbor for trade. No large plantations existed in these areas, and they were considered marginal despite the fact that the island was so small that no matter where an attacker landed the entire island would be at risk. Elsewhere, where there was a low risk of a direct confrontation, the plantation elite chose to build endless fortifications. However, unlike the remote corners of the island where the landscape was dominated by small farms, this was where large plantations existed. Rather than focus their efforts on securing the island, they focused on the appeal of having a fortification near to their own properties, thereby giving them a sense of security, even if that feel came at the expense of actual safety. This was how the martial landscape was constructed in Antigua: with the desires of a small elite controlling defense policy and appropriations to create the veneer of protection for the few, but ultimately creating defensive holes in the rest of the island.

### **Not with a Bang, but with a Whimper: The Collapse of the Fortification System and the end of the Martial Landscape**

Perhaps the most damning judgement of Antigua's fortification network came at the entrance of the French into the American Revolutionary War in 1778. In a sneak attack organized by the French governor of Martinique and supported by a small taskforce of French frigates and other lesser vessels, the French seized the island. Strategically, this created a continuous territorial bridge between Guadeloupe and Martinique, while splitting the British Windward Islands from the Leeward Islands. The British Governor Stuart, at the beginning of the attack, penned a quick



message, dramatically overstating the size of the French fleet, claiming “that we are this Morning attacked by a very Considerable Fleet from Martinique, from which Troops have made a descent and already taken the Batteries of Cashiaron and Grande Bay. There are now several Ships of the Line off Roseau...the Squadron is supposed that from Toulon.” Stuart finishes the letter with a direct appeal to Governor Burt of the Leeward Islands, stating, “It is said they intend for St. Kitts after demolishing us,” specifically identifying the Governor’s seat as the next target (NAAB 329: 10 September 1778). Stuart capitulated later that afternoon, and Dominica was securely in French hands by the time the message arrived in Antigua.<sup>14</sup> Whether the message represented a measured calculation engaging in creative hyperbole to elicit military support from Governor Burt, or was borne of hysteria and surprise, the Antiguan legislature reacted to the news of a massive French fleet with two observations. First, that Rear Admiral Samuel Barrington ordered his forces to Barbados in anticipation for an offensive operation against St. Lucia. Second, this withdrawal of naval forces elicited this fatalistic assessment of Antigua’s chances against an attack: “this Colony for want of that protection of His Majesty’s Ships of War on which it always has and must still chiefly depend is now in the most defenceless State and should it be attacked cannot possibly make an effectual Resistance to the Force that may be expected against it,” (NAAB 329: 10 September 1778). In an embarrassment, two French schooners were able to approach close enough to English Harbour unmolested, in order to determine that the harbor was bereft of warships except for the *HMS Antigua*, a brigantine—a small vessel sponsored by the Antiguan government for the protection of the island. The *Antigua*

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<sup>14</sup> Admiral Barrington, the Royal Navy commander in the Eastern Caribbean withdrew all of his vessels to Barbados, thereby leaving the rest of the Caribbean defenseless. Critiques in London suggested that the entire invasion could have been thwarted by a single ship of the line (O’Shaughnessy 2001: 169). This type of attack was attempted against Antigua in 1805 with a fleet of small vessels attempting a sneak attack from Guadeloupe. The entire force was intercepted in the channel between the two islands by a single warship (Dyde 2000: 109).

left days later on a new assignment, leaving the island bereft of any naval support. Not a single discussion or mention of fortifications came up in the entire discussion until the next meeting a week later (NAAB 329: 17 September 1778). Buried within this exchange is the tacit understanding that the internecine conflicts of the seventeenth and early eighteenth centuries were over, and each island faced asymmetrical warfare debuted in the Seven Years War by the British invasion of Guadeloupe, and copied during the American Revolution at Dominica, St. Vincent, Granada. St. Eustatius, Saba, St. Maarten, St. Bartholomew, St. Lucia, St. Kitts, Montserrat, and Nevis.

By the end of the American Revolution, the Antiguan Treasury was bankrupt. A committee was appointed and “Requisitions made by the Military Commanders and the various grants made by the Council and Assembly of this Island to put the same into a proper State of Defence,” reported that between 1776 and 1782 a total of £142,479/18/5 ¼ was spent. Staggered by their own findings, the committee claimed that the total, “a Sum beyond credibility,” (CO 9/41: 8 May 1783). Compounding these enormous losses were a string of disasters, the 1769 fire in St. John’s, a hurricane in 1772, drought between 1774 and 1780, blockades and war preventing provisions from arriving from North America, and a second devastating fire in 1782 which burnt half of St. John’s to ashes. Upon report, the Assembly declared that they needed to write to the Crown, “setting forth the enormous load of debt brought on this Colony by our exertions for its defence & protection during the late war, with the declarations of our incapacity for repaying the sum which were so graciously & charitably advanced for us by his Majesty,” begging relief. Several weeks later, in a direct petition to the House of Commons, the first such petition sent by the Antiguan legislature, the Council and Assembly renew their call for relief (CO 9/41: 22 May 1783). With several years resisting increasing imperial pressure, the Antiguan

government could no longer offer a credible alternative. Rather than attempting to take on new burdens, the local autonomy of the first half of the eighteenth century gave way to more direct control.

The fortifications mirror this downfall. Desperate to gain any kind of financial leverage, Governor Sir Thomas Shirley (r. 1781-1788, 1790-1790), leveraged his position as the King's representative to expand the governor's, and thereby the King's influence. In a letter to the Secretary of State, Lord Germaine, Shirley writes, "that the Batteries & redoubts around the Island were (a very few excepted) in a ruinous and untenable state, & originally constructed with no other designed that could promise success but that of annoying the enemy in their attempt to land," before praying for material support in the form of weapons, money and more soldiers (CO 9/41: 22 August 1782).<sup>15</sup> In an address to the legislature, Shirley noted, "from an account largely laid before me the very heavy annual charge the Public are at for supporting and maintaining the several forts and fortifications round this Island, *many of which are unserviceable*...[I] recommend it to you to adopt some Expedient as soon as may be, to lessen Considerably an Expenditure so enormous, and in my Opinion so uselessly incurred," (CO 9/41: 31 July 1783, emphasis added). Notably, the Assembly was torn between the need to reign in the public spending, but insisted on forming a committee to oversee the selection in order to prevent the, "prejudicing the present Officers now in Commission," over each fortification (CO 9/41: 31

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<sup>15</sup> The French successfully seized Montserrat, Nevis, and St. Kitts earlier that year, leaving Antigua isolated in the Leeward Islands. Additionally, Shirley admits in the same letter that the Antigua militia, while more than 1,100 strong on paper, could only reliably muster less than 900 men. To alleviate this, Shirley asks for permission to arm enslaved Africans from the Secretary of State, and placing them under the control of (and for Antigua's sake, the financial responsibility of) the Crown, establishing the idea whereby the West India Regiments would be raised in 1795 (see Beier 2017; Buckley 1979; 1998; Dyde 1998). Elsewhere, reports from the state of defense of the island indicate that even though the principle fortifications at Fort James, Monk's Hill, and Fort Barrington (Cripplegate) were issued with new 32-pounder cannon, their carriages made them incapable of firing and leaving the island even more defenseless (CO 9/41: 19 December 1782).

July 1783). This final exception, retains some of the subtle dealings the Antiguan elites had in retaining their honor: if the decision came from a committee of peers, the gentlemen commissioned as captains at each fortification, drawn from the ranks of the island's elites, could not complain about their disposal, and issues of favoritism could be avoided. Alternatively, however, this also allowed for a certain amount of leeway in deciding which officers would be retained, regardless of whether the fortification was considered useful or not.

The results from the committee's report reflect the new priorities of the Antiguan elites, developed in the second half of the eighteenth century (Figure 9). Great George Fort, Fort James, Goat Hill Fort (Fort Barrington), Fort Byam, and Johnson's Point Fort are all retained. None of these are particularly surprising given their historical trajectory, in the case of the first three, the massive investments into constructing and maintaining them. None of the

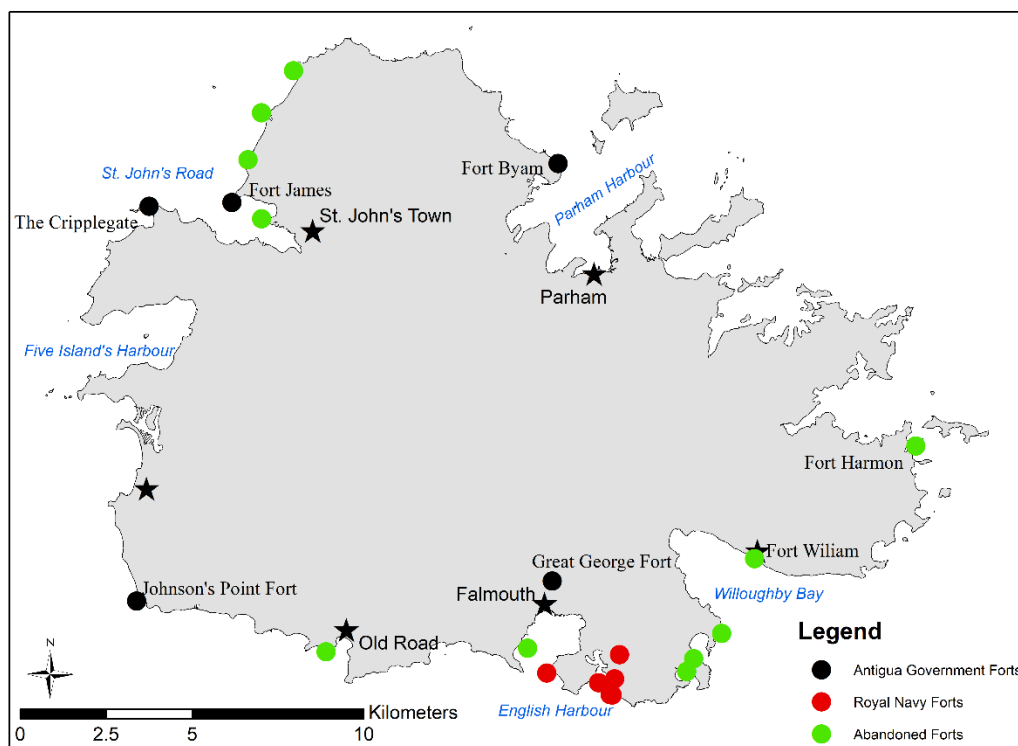


Figure 7.9 State of Antigua's fortifications after divestment in 1783. Illustration by Christopher K. Waters.

fortifications were particularly effective, however, with each one receiving complaints or critiques over the eighteenth century (CO 9/41: 24 September 1783).

For, “Fort Berkley, Blackpoint fort, Fort Charlotte, the Mask Battery, and the smaller Batteries about English Harbour...should be surrendered...to the Officer Commanding His Majesty’s Ships in these Seas,” (CO 9/41: 24 September 1783). This move represents the complete capitulation of Antigua’s sovereignty. The architect of the military expansion at English Harbour was Thomas Shirley, who envisioned Antigua as being a staging ground for future conflicts with France. Soldiers would embark from their encampment above the Dockyard, seizing islands from Britain’s enemies, while providing additional security to the Naval installation. In one move, the Antiguan government ceded control of the entire area, completely absolving themselves of its security, nevertheless remaining on the hook for providing additional subsistence to the soldiers stationed there. Ironically, this move in the short term, only compounded Antigua’s long term financial problems in providing food and support to the increasingly large presence of soldiers on the island (Buckley 1998).

Perhaps the most interesting, however, are the fortifications which the Antiguan government ordered abandoned: “all the other forts and fortifications viz.t Fort Hamilton, Corbinson’s Point fort, Fort Harman, Fort William, Fort Isaac, Fort Christian, Fort Charles, Old road fort, Cades Bay Battery, the Battery at Weatherill’s point and the Redoubts about Indian Creek.” The gunners and matrosses would be paid off and dismissed, and the Captains reassigned according to the will of the Governor. Any useable stores would be removed either to Great George Fort or Fort James if thought expedient, and whatever remained, including the platforms themselves, were sold off. John Luffman, commenting several years later, wrote in a published letter:

At the conclusion of the late war, several forts, on the coasts of the island, were sold by order of the Legislature, and produced to the public about a twentieth of the sum they cost in erecting. Some of these buildings have been demolished by the purchasers for the useful materials they were composed of, while other remain in their original state, probably to be sold to the public on a future rapture, at any price their proprietors shall think proper to demand for them, (Luffman 1789: Letter VIII).<sup>16</sup>

By abandoning these eleven fortifications, the Antiguan government signaled that their priorities were focused strictly on the productive parts of the island around St. John's and Parham, with the citadel at Great George Fort remaining intact just in case: hardpoints protecting trade, but little else. The rest of the island was left reliant on the ability for the British military to provide the necessary defense.

### **Conclusion**

The French Revolution spilled into the Caribbean in the 1790s leading to almost a quarter century of continual warfare in the region. The British military expanded their operations around English Harbour, expanding the Dockyard and formalizing the encampment at Shirley Heights (Buckley 1998; Weaver 2002). Outside of the military lands, Antigua's white population continued to shrink as plantation ownership consolidated under fewer families, sugar became less profitable, and abolition of slavery gained traction in British society. These forces sapped the autonomy of Antigua's legislative tradition as more control was ceded to the Governor and military commanders on the island. The loose relationship between Antigua and Britain expressed in local defense policy, vanished in the face of growing imperialism, global warfare, and industrialization.

Between 1670 and 1785, the plantation elites generated enormous wealth and gained social and political prestige in the British world. They were partially successful because of the

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<sup>16</sup> Luffman's prediction proved true, and all of these forts were taken back into service by the 1790s and are still part of Antigua's government in the 1830s (MR 1/1070).

loose relationship between Britain and the island of Antigua held together by shared cultural values and economic ties, but otherwise largely devoid of direct political interference. This autonomy was guarded jealously by the Antiguan elites, leveraging their control over the treasury and power to tax themselves to stymie royal governors and focus their efforts on local priorities. These priorities included Antigua's defensive system of fortifications and coastal batteries, which, as we have seen, were guided by the wishes of powerful plantation interests at the expense of the rest of the island, as well as the global ambitions of successive British monarchs. What Antigua's fortifications cause us to do, then, is rethink several relationships which are often assumed: fortifications are not always military; the role and power of local governance in a colonial space; the heterogeneous populations which congregate around and live their lives within fortifications.

Caribbean history, in general, is filtered through colonial and imperial lenses, which places these islands in a subordinate position to the decisions reached in Europe by monarchs, generals and politicians. Antigua's fortifications, as it turns out, were neither well suited towards effecting a proper defense of the island, nor did they provide the necessary oversight and visual power required for internal security. Indeed, as military sites, Antigua's fortifications largely failed. Rather, they represent a fascinating aesthetic: an ideal of what militarism looks like, but for the purpose of enacting specific social messages targeted at the small, white elite. As public works projects, Antigua's fortifications are not military sites conceived in imperial or colonial ambition, but rather manifestation of public policies closely and jealously guarded by a local governmental institution interested in preserving their own power, legacy and honor; this is the martial landscape.

# Appendix A: Archival and Archaeological Sources

## Identifying Archives

This project relies on a large corpus of archival sources, including government documents, maps, travel logs, diaries and letters, as well as graphic evidence. Each source was evaluated and chosen to support this research project. After my initial assessment of the fortification network identified the Antiguan government as the primary source of funds and creative inspiration in the placement and construction of the defenses, rather than attempting to find military archives from the Regiments stationed on the island, I focused on the role the local government played. I determined that there were three major textual collections paramount to research into late seventeenth and eighteenth-century Antiguan fortifications: the Antigua Sessional papers, the Acts of Antigua, and the Calendar of State Papers for the West Indies (CSPWI), located in two archives: the National Archives of Antigua and Barbuda (NAAB), and The National Archives in Kew, London (TNA). Originally, this project focused exclusively on obtaining resources from TNA, as access to NAAB was severely restricted for many years (Barber 2011). However, once I started my fieldwork in Antigua, I was granted unfettered access to the collections at NAAB which became the primary archive for this project.<sup>1</sup> This appendix details the specific archival, archaeological and environmental sources used in this project, how they were evaluated, and used in support of this project (for a detailed discussion of the limitation and methodological concerns in using archives see Green 2003; Leibmann and Murphy 2011; Light and Hyry 2002; Little 2007; McGuire 2008; Stoler 2008; Thomas 2013).

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<sup>1</sup> I owe a special thanks to Mr. Prosper, Acting Director of the NAAB, and his staff for welcoming me into the archives and providing research support. Copies of all digitized documents were transferred over to the NAAB.



### *Antigua Sessional Papers*

The Antigua Sessional papers are the minute books recording meetings of the Antigua Assembly and Council. As part of the legislative business, a secretary appointed by each chamber, recoded the legislative actions, messages, petitions and official correspondence of that house. The Council and Assembly kept concurrent, but separate accounts. Periodically, these minute books were copied and send to London, along with any new Acts or other business transacted by the Antiguan government, while the originals were retained in Antigua for reference and record.

The Antigua Sessional papers collection at the NAAB (NAAB 314-360) spans the years from 1693-1866, contained in 48 volumes, and contains exclusively the records of the Antiguan Assembly. It is important to note that this is not a full set with several years missing or so badly damaged that they could not be accessed and require immediate conservation and preservation. This is due, in part, to the way in which these volumes were housed prior to the 1990s. Before moving into the purpose-built archives in 1991, the volumes were kept in the eighteenth-century arsenal and police station in downtown St. John's where they were subjected to tropical heat, dampness and insects. Also, sometime in the 1980s the station was being renovated and the whole archive was thrown out onto the streets and abandoned, and it was only through the intercession of several community members that the volumes were saved (Joseph Prosper pers. comm. 2016). The volumes were first stored in the Museum of Antigua before being transferred to the purpose built National Archives building in the 1991, where they are now held in a climate controlled environment and preserved in archival grade boxes. For the current project, each page

of every accessible volume was digitized using an iPhone 6, totaling 12 volumes encompassing 3,984 pages between the years of 1693 and 1789.<sup>2</sup>

As there were gaps in the collections held at NAAB, I tracked down the copies at TNA in London. I made two week-long trips to the archives in January and December of 2016, targeting the Colonial Office [CO] 9 series: Antigua, Sessional Papers, and the CO 155 Leeward Islands Sessional Papers. Spread over 81 volumes, the CO 9 archive contained all of the copies of the Antigua Assembly and Council meeting minutes between 1704 and 1966, sent to London (barring 1750-1752, which are missing in both the NAAB and TNA collections, see Gaspar 1985). The CO 155 series has the earliest Assembly records starting in 1684, filling in the dates between then and 1704. Since the minutes reflect governmental business which required assent by both the Council and Assembly, and as I had already started with the Antigua Assembly papers from NAAB, I continued with this archive, digitizing those missing years which were damaged or missing at NAAB spanning from 1685 to 1789, totaling 16 volumes and an additional 5,730 total pages. Pages were again digitized using an iPhone 6. Between the materials from the NAAB and TNA, the total archive used for this project starts in 1685 and continues through 1789, with gaps from 1700-1703 (NAAB 315 and 316 heavily damaged and require conservation before reading), portions of 1721 and 1725 (missing), and the second half of 1729 (missing).

The Antigua Sessional papers detail debates relating, among other things, to defense policy, expenditure and the state of the island during the seventeenth and eighteenth century. These records are an underexploited resource. David Berry Gaspar (1985), in his seminal study

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<sup>2</sup> Originally this project called for a chronological scope running through emancipation in 1834 and those volumes were likewise digitized, with a total of 27 volumes comprising 11,540 total pages in this collection. Copies of all photographs were handed over to NAAB.

of Antigua enslavement and the relationships between masters and the enslaved, used the archives in London to great effect, pulling from the CO 9 series spanning the years 1722 to 1764, but did not differentiate between Council or Assembly minutes in his text. Natalie Zacek (2010), however, chose to use other sources, relying on the CSPWI, personal correspondence, plantation documents and church records for her study of early white settler society in the Leeward Islands. She does, however, cite NAAB 319, the Antigua sessional from 1713-1716, in her work. She likely faced resistance from the director of the archives to view more (see Barber 2011b). Stephen Saunders Webb (2013), likewise relied on the CSPWI in his study of Daniel Parke.

Perhaps the person who most directly pulled from the Antigua Sessionals was Vere Langford Oliver in his three volume *History of Antigua* (1899), where much of his information is lifted either verbatim, or summarized, from the discussions in the sessional papers.<sup>3</sup> He chose what he thought was the most important parts to the history of the island, creating a compendium of facts, numbers and small vignettes, all serving to highlight Antigua's elites and their actions. Most of the two volumes is filled with the histories and genealogies of Antigua's planter families. His text, while an excellent and well cited source, does not include the majority of the deliberations in the Antiguan government.

For this project, I focused on records relating to fortification and defense, demographics, taxes, and disagreements arising between the Assembly and the Governor and his Council. Entries fulfilling one or more of these criteria were transcribed in full within a Microsoft Word document, preserving the original spelling, notation and grammar as much as possible. These transcriptions were then sorted into different files related to their subject matter: general fortification/defense, dockyard, soldiers' lives, and raids, as well as filing passages relating to a

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<sup>3</sup> Barber (2011b: 29), incorrectly states that the evidence which Oliver drew on no longer exists. Where Oliver lifts direct quotes are verbatim found in the Sessional Minutes (NAAB 314-346; CO 9).

specific fortification in its own file. Some passages were filed under multiple headings where necessary.

### *Acts of Antigua*

The Acts of Antigua (TNA CO 8), are an archival collection of all the laws passed by the Antiguan legislature and sent for confirmation to the Board of Trade and Plantations in London. The total collection utilized for this research encompasses 23 volumes totally 3,049 pages, dating between 1668 and 1821. In addition to the original text of the individual acts, additional information about when the act was compiled and sent to the Board of Trade, when it was received, and the decision about whether to accept or reject the Act are also recorded on each document. Materials were transcribed as necessary, and a local database of the different Acts of Antigua was kept for quick reference in my possession.

The deliberation of bills was recorded in the Antiguan Legislative Minutes, except for the earliest volumes in the seventeenth century, the final texts of those Acts were not recorded there. Accessing the CO 8 series allowed me to interrogate the official stance of the Antiguan government which was presented and minutely combed over by the Board of Trade and Plantation, and many of these Acts are directly related to defense policy. From these documents, I derived additional detail about the state of Antigua's defenses, and how the Antiguan elites wanted the official record to reflect their policies. While this represents a heavily curated image (e.g. Stoler 2008), it nevertheless is reflective of the decisions which impacted the island's landscape.

The original Acts of Antigua also provided additional insight over the officially published *Laws of Antigua* (1803). Whereas the *Laws* published those Acts in effect in Antigua, including those which set precedent, they do not include all the many Acts which were either disallowed

by the Board of Trade, or those Acts meant to be in force for only a short amount of time. Observationally, the Crown disallowed most Acts, exercising their oversight. The Antiguan legislature, however, used distance and time to their own advantage, knowing that the Act went into effect the day it was passed in Antigua, and continued to be in force until it was returned to the Island months, or even years later. Several laws were continually disallowed, such as the Powder Tax Act, however, the Antiguan government kept on passing them for one-year terms knowing that they could always pass them again.<sup>4</sup> In this way, the Antiguan legislature could maintain their autonomy from Crown oversight throughout the seventeenth and eighteenth centuries, making these documents an important addition to the archival materials.

*The Calendar of State Papers, America and the West Indies (CSPWI)*

The Calendar of State Papers, America and the West Indies, consists of copies of the official correspondence between the Governors and the Board of Trade and Plantation from 1564 to 1739. The original documents were published in a series of 41 volumes, edited by W. Noel Sainsbury in 1860. British History Online (BHO), has subsequently digitized all of the volumes using the method double rekeying (two separate typists transcribing documents and then digitally resolving differences between the two transcriptions), and placed them online at: [www.british-](http://www.british-)

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<sup>4</sup> In 1768, the Crown demanded revisions to the long-standing Powder Tax Acts in Antigua (NAAB 327: 25 August 1768). Whereas previous iterations had long been disallowed, a new global imperialism extending from the successes in the Seven Years War fostered new tactical considerations for the British Monarchy. Specifically, they wanted each colonial government to report to the Crown on the quantity of powder held in public magazines so they could factor that into future military planning. This new rule was designed to increase the direct control of the metropolitan government over local affairs. Prior to this, when the Army or Navy needed powder, it would be either lent or sold to them on an as needed basis. This rule change would negate this arrangement and effectively reduce the local colonial government's ability to conduct their own defense. The Antigua Assembly balked at this new measure as an imperial overreach in authority, and rather than passing a perpetual law ceding this control, the Antiguan Government voted each year to renew the Powder Act to circumvent this new priority.

history.ac.uk. The entire database is searchable, and therefore represents an incredibly dynamic resource.

One major drawback is that during the editing process, Sainsbury selected which material was considered most important, with many entries only having a summary attached, rather than the original text. The original volumes are held at TNA in Kew, and drawn from the CO 1 and CO 5 series. Due to time constraints and other, more important archives in relation to this project, the originals were not consulted, and I relied on the digital version.

*Additional Documents: TNA*

Additional documents utilized in this research from The National Archives revolve around maps and customs documents. Maps provide snapshots of spatial information which was used to great effect in developing the vulnerability index. While spatially problematic, all of the maps were imprecisely surveyed leading to some major discrepancies, the information they conveyed as documents proved to be invaluable in locating fortifications for survey, reflecting on the spatial arrangement between defenses and plantations, and understanding the evolution of landscape changes across time visually.

Two sets of customs documents (CO 10/2; CO 157/1) were digitized at TNA. This information records the arrivals and departures of every vessel in Antigua, once in the early part of the eighteenth century, and again in the 1780s. Information on rigging type and tonnage as well as cargo, armament, and crew size were all used in developing the vulnerability index, specifically looking at vessel size and rigging. The information was partially digitized into a database, and will be expanded in the future for a more detailed investigation into the movement of raw materials in the Atlantic World.

### *Published Historical Texts*

This research also relied on several published historical treatises: books which were available and consumed contemporaneously. These books include works on fortification, artillery, military organization and sailing, and provided anecdotal information and best practices through which I could evaluate the state of Antigua's fortifications. Data gleaned from these books also supplied additional historical parameters in the different spatial models constructed for this research, including assessments of coastline vulnerabilities.

### **Archaeological Data**

As a holistic historic archaeology project, this research utilizes a number of different methodologies in order to better understand and interpret Antigua's fortifications. This includes archaeological surveys, analysis of existing museum collections, and archaeological excavations. Below is an overview of the methodologies employed.

#### *Surveys*

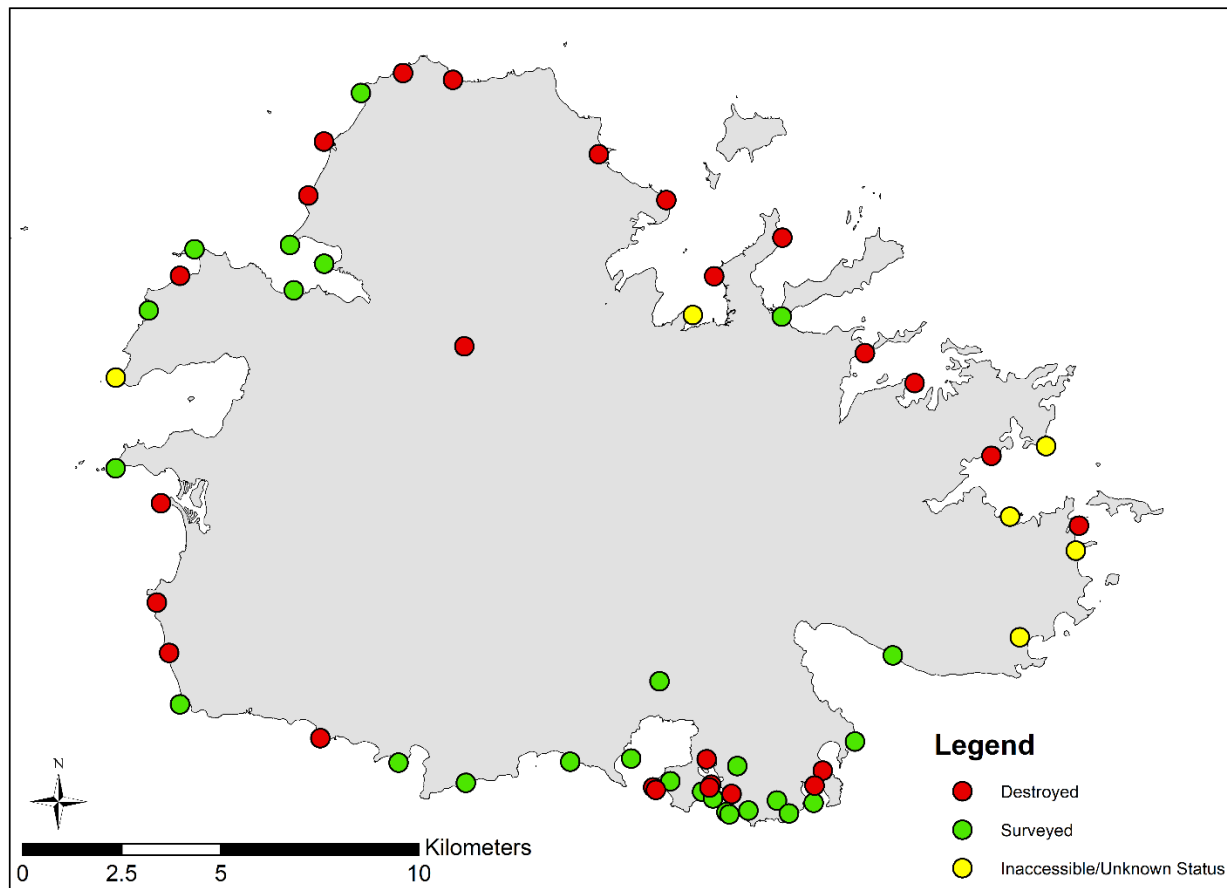
The Museum of Antigua's SITES database lists the known archaeological sites on the island, including fortifications. While there was only a little detail, the database did include coordinates derived, by hand, by Desmond Nicholson, using the Directorate of Overseas Survey (DOS) 1:5000 map series. The coordinates were accurate, and many of the sites I had never previously visited were readily located. The only drawback was that the database was compiled in the 1990s, and in the ensuing years, several sites became inaccessible through erection of fencing, or were destroyed and built over by development.

Other possible sites not recorded in the SITES database were derived from historical sources and Nicholson's (1994) *Antigua and Barbuda Forts* book. These targets were narrowed down using modern maps and satellite imagery before attempts were made to ground truth the

archaeological remains. In all, 26 sites were located and identified as part of Antigua's fortification network. The sites ranged in intactness from easily identifiable walls and supporting structures such as gun powder magazines, to barely visible foundation footings and some scattered material culture. These latter sites were identified based on their historic locations and the absence of any other structures within 100 meters of the shoreline. Of the remaining 32 historically known forts, coastal batteries, and guard houses, 26 were known to have been destroyed, either historically or more recently for coastal development. Nicholson already recorded their loss in the 1990s in the SITES database. The last six sites are located on private property. Four of them are within gated communities and permission was not granted to survey these sites. One is on a large tract of land protected by a fence and dogs. The last site was inaccessible due to a wall and a healthy mangrove system.

Sites which were accessible were recorded using a fort identification sheet developed by myself, and mapped using a Sokkia SCT-6 Total Station, and coordinates were fed into an ESRI ArcGIS geodatabase. Points were chosen and a basic, scaled schematic map was created of the site. More intensive recording, such as scale drawings, or 3D modelling using photogrammetry were not done given the limited amount of time and limited permissions to work on these sites. As archaeological sites, the land on which they site is technically Crown Property and under the jurisdiction of the National Parks of Authority, and are therefore public. These laws, however, are new, not enforced, and the National Parks Authority does not have the capability to enforce and protect sites outside of Park boundaries.





*Figure A1.1: Map showing all of Antigua's historically known fortifications and their status as of June 2018. Illustration by Christopher K. Waters.*

In addition to mapping, 25 identified sites<sup>5</sup> were systematically subjected to pedestrian surveys and surface materials were collected for later analysis, although most sites did not yield much materials, as the deposits were incredibly shallow.

### *Collections*

With access to the fortifications sites proving problematic, and with the destruction of many sites over the past several decades due to development, excavation at most of the sites was impossible. Surface collections gathered in the 1970s and 1980s by Desmond Nicholson and the Museum of

<sup>5</sup> Of these sites, five were later excluded from this project as they dated to the expansion of the Dockyard and military occupation on the southern end of the island and after the end of my study period.

Antigua were used to gain additional perspective on the daily life at Antigua's forts. A total of fourteen collections were located, washed and analyzed, and an additional two were collected by me during surveys and added. Ceramics dominated the collections, but several also had other artifacts, including a few buttons, pipe stem fragments, and glass. Artifacts were identified and recorded in separate databases, using digital type collections held at the Florida Museum of Natural History, the Jefferson Patterson Digital Type Collections, and materials from the Digital Archive of American Comparative Slavery (DAACS). Additional type collections at the Museum of Antigua and the Nelson's Dockyard Museum were used as reference.

### *Excavations*

Archaeological excavations in support of this dissertation took place in 2015 and 2016 at Great George Fort on Monk's Hill (Murphy et al. 2015; Waters et al. 2016). The 2015 fieldwork included nineteen 50x50 cm test units located within structures to assess their chronology and archaeological intactness. This information was used in 2016 to target two locations, [UC004], and [LC017], for further excavation. [UC004] was a small, rectangular foundation within Fort George over which a wooden building would have been erected. This building proved to be one of the many wooden structures erected during the first half of the eighteenth century by private individuals on site as family shelters in case of a military emergency. Excavations conducted at [LC017] uncovered part of a latrine complex, and included test units outside of the walls and downslope to study the disposal patterns at a fortification.

Excavations were carried out with students from the 2016 Antigua Archaeology Field School, with support from professional and academic archaeologists who conduct research in Antigua. The excavations were done using natural stratigraphy and excavated using trowels. The sites were mapped and drawn prior to excavation. All uncovered features were drawn at a

1:20 scale and subsequently digitized. Material culture was processed in Antigua, and entered into a database for further analysis. Records, databases, and reports were subsequently submitted to the National Parks Authority and the Museum of Antigua.

### **Spatial Data**

The spatial and environmental data underlying the GIS models came from a number of different sources. Much of the underlying physical mapping is from the EIMAS database, a governmental source of information which I had permission to use through my ongoing professional relationship with the National Parks Authority. This database includes high resolution satellite imagery from 2004, as well as physical geography in the form of contours, elevations, shorelines, which were all used to great effect in the development of the vulnerability and visibility models. As this information is used for official government planning and was created by a professional company, the quality of data is good, and it allowed me to create the necessary layers and digital elevation models necessary for this research.

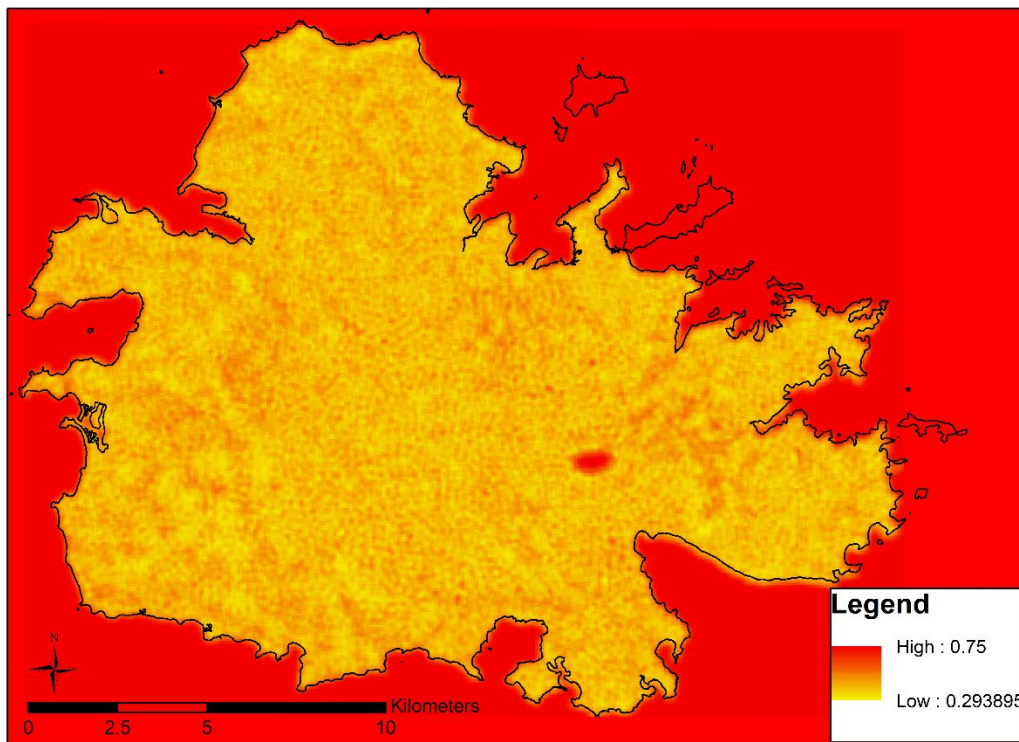
The bathymetric analysis came from Imray-Iolaire's A-27 1:50,000 Sounding Chart for Antigua (2015), a standard nautical sailing chart the water immediately around Antigua. The chart was purchased, scanned, and geolocated in ArcGIS in order to build the bathymetric DEM necessary for evaluating coastline vulnerability.

## **Appendix B: Application of Bocinski's (2015) Defensibility Model to Antigua**

In the first attempt at exploring the defensibility of Antigua's fortifications, I applied Bocinsky's (2015) published R algorithm, inspired by the Martindale and Supernant's (2012) critical application of the term, to test the appropriateness of the model in assessing Antigua's colonial defense network holistically. The model focuses on two variables, elevation advantage and visibility, as key determinants of whether a particular landform has natural defensible attributes, which were variables considered improvable and sought after in times of conflict in pre-Columbian British Columbia. The model uses rasterized Digital Elevation Models (DEM) broken into 30-meter cells where each cell has an elevation value associated with it. From this, it is possible to extrapolate the variation between the cells in functions of visibility and elevation advantage, which is indexed to a value between 0 and 1, with 0 being not at all defensible, and 1 being the most defensible landforms based on the variables elevation difference and visibility. The index values are then calculated for known archaeological sites in the landscape and evaluated on whether or not those sites exhibit a statistically significant variation from the derived mean defensibility values. The results demonstrate that most sites examined in the Pacific Northwest exhibited a defensibility mean higher than the average landform, suggesting that settlement sites were purposefully chosen, at least in part, for their defensible attributes.

For the Antigua model, the DEM was sourced from the LANDSAT database at the USGS (30m resolution) for Antigua. The DEM was then clipped in ESRI ArcGIS 10.4 to include only the Antiguan mainland, removing the offshore islands and water before being run through the

Bocinsky program.<sup>1</sup> The value of each raster cell was then condensed into a point, resulting in 74,374 data points. The cell values for each of the 47 georeferenced fortification points were then extracted from each raster cell and saved to those points. In addition, as a control, the 108 georeferenced windmills cataloged in the Nelson's Dockyard Museum Database were likewise placed on the map and the raster values were extracted to those points. The values were then exported individually as a database, and imported in SPSS and investigated using an Independent Sample t-test.



*Figure A2.1: Results from the Bocinski R-program for defensibility. Note how the model is swamped by the high (0.75) index values on the water reflecting high visibility. Illustration by Christopher K. Waters.*

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<sup>1</sup> Since the water surrounding the island registered as flat and at no elevation, when run through the Defensibility algorithm, it gave a very high defensibility rating. As I am dealing only with terrestrial sites, the data skew was considered unnecessary and thus removed. Similarly, there are no fortifications on the offshore islands.

## *Results*

The 47 fortification sites have a defensibility mean of 0.535, with a standard deviation of 0.101. The values range from a high of 0.746, at Fort Charles, and a low of 0.383 recorded for Dow's Hill on Shirley Heights. Applying the Sample t-test to evaluate whether these locations are statistically significantly different from the surrounding landscape, the results show that there is a significant difference ( $p=0.00$  at 95% confidence), rejecting the Null Hypothesis that these values are the same, and concluding that the fortifications were built in locations where elevation and visibility were a consideration.

As a control, I also compared the locations of Antigua's 108 extant windmills to see if they were also placed in locations reflective of elevation difference and visibility. The average windmill location returned a defensibility value of 0.411, with a standard deviation of 0.058, and a range of values from 0.329 to 0.648. These values tracked closely with the overall landscape defensibilities. When compared to the fortifications using an Independent t-test, the results show that there is statistically significant difference between the two samples ( $p=0.000$  at 95% confidence). The Null Hypothesis is thereby rejected, and we can say that elevation difference and visibility played a larger role in the placement of fortifications than windmills on the landscape.

## *Discussion*

This test demonstrates that the fortifications around Antigua were placed in locations which are, based on the model design created by Bocinski (2014), considered defensible. The comparison between the windmills and the fortifications likewise demonstrates that the fortifications were

built on landforms which augmented their defensive attributes. However, upon further reflection, these results are problematic. First, the assumptions on which the original defensibility tests were conducted were based on pre-gunpowder, small First Nations groups in the Canadian British Columbia. The defensive considerations are significantly different than seventeenth and eighteenth-century European naval and terrestrial warfare and the deployment of complex machines which could project violence much farther, but were also significantly more constrained by environmental factors.

Second, the original Defensibility Index was applied to a largely terrestrial space with significant and varied landforms: the high mountains and deep valleys found in the British Columbia. Antigua, on the other hand, is a small island, with less variation in its landforms, and surrounded by water. While the sea is a dynamic environment, complex satellite imagery sees this as a flat environment, with no variation in elevation. In initial tests of the model, the terrestrial results were swamped by the results being generated from ocean cells.<sup>2</sup> The ocean cells generated a high defensibility index result (0.75), reflecting the lack of variation in elevation and no hindrances to visibility from cell to cell. While these cells were ultimately removed from the analysis, their impact on the neighboring coastal cells in the calculating process was dramatic, significantly adding to the visibility scores in those areas. This is evident when we look at the fortification with the highest defensibility value, Fort Charles. The Bocinski model returned a defensibility value of 0.746, suggesting that this is a particularly defensible site.

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<sup>2</sup> Antigua is geologically older than most of the other islands in the Lesser Antilles, lacking the sharp volcanic mountains of the newer islands. Even though Antigua's highest peak is some 1300 feet in elevation, the island is considered culturally as one of the flat islands, like Barbados. The defensibility index seemed to agree, with the initial output in grayscale showing almost all black and very little white. In comparison, Guadeloupe, a larger and much more mountainous island, exhibited more dramatic results because of the difference in terrain.

Fort Charles, however, is on a small island in the middle of Falmouth Harbour, surrounded by water, and a high point only three or four meters above the high-water mark. This means the score is reflective of almost only the visibility component—there is no terrain to block visibility—rather than elevation. Yet, being so close to the waterline, makes Fort Charles incredibly vulnerable to shipborne artillery attacks: vessels in the eighteenth century had difficulties elevating cannon beyond 10°, Conversely, Dow’s Hill, which returned the lowest score of 0.383, is set at several hundred meters elevation and well above the range of where shipborne artillery might be able to fire upon. This suggests that this model has limited utility in evaluating defensibility in gunpowder warfare.

Interestingly, when comparing the results between the fortification and windmills, this skewing becomes more obvious. Windmills require unobstructed views to allow the breeze to operate. In Antigua, the majority of the windmills sit on the tops of prominent hills in order to best catch this breeze. In the Bocinski model, this is reflected in the locations of the windmills being generally located in statistically significant “defensible” areas, indicating a combination of a higher elevation difference with an unobstructed view of the surrounding landscape. However, the windmills are also significantly less defensible on average than the coastal fortifications due to the impact of visibility and terrestrial elevation over the flat ocean is considerably higher.

With these considerations, the results were rejected as not useful to the analysis of Antigua’s fortifications. While the correlation between the sites on which Antigua’s fortifications are located are considered more defensible, the variables poorly reflect the strategic and tactical considerations of island warfare in the seventeenth and eighteenth centuries. In order to better understand Antigua fortifications, then, new variables were necessary based on



the historic contingencies and personal responses of Antigua's elites in order to better explain the martial landscape of the island.

## Appendix C: Critical Reflection on Defensibility Model

As with all GIS models, the index of coastline vulnerability for Antigua in the seventeenth and eighteenth centuries developed in Chapter 3, is one which is merely a representation of possibility, rather than a definitive, absolute truth regarding Antigua's colonial defense network. Rather, assessing and combining the tested variables spatially affords me the opportunity to better interpret the archaeological and historical data for this research and the conclusions reached (Gillings 2012; Jonitez and Timpf 2015). The model is necessarily a generalization meant to illustrate probabilities, rather than all possible iterations of environment, sailing capabilities, and degrees of local knowledge. In constructing this model, I considered its suitability for this project and identified, analyzed and rejected several variables. Below is a critical assessment of the model, highlighting the interpretive issues, and offering further possibilities in refining the model for future development.

In developing this model, I evaluated dozens of possible environmental, historical, and social variables that could play a role in eighteenth century island defense. Previous defensibility studies focused on variables such as elevation, visibility, accessibility, area<sup>1</sup> (Bocinski 2014; Martindale and Supernant 2009; McCool 2017), organization and construction of defensive features (Keeley 1996; Keeley et al. 2007; McGuire and Villalpondo 2015), and settlement and landscape use patterns (LaBlanc 1999; 2006; Arkush 2011). While my initial inspiration derived from these works, all of these examples are of pre-gunpowder, terrestrial communities. Seventeenth and eighteenth century European maritime warfare required a reassessment of these assumptions behind the basic variables.

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<sup>1</sup> Andrew Martindale is reconsidering area as a useful metric, (Andrew Martindale pers. comm. 2017).

The environmental variables considered and ultimately rejected for this project can be broken into two broad categories: variables used in previous assessments of defensibility, and variables related to the ocean. Initially, I used Bocinski's (2014) published model on Antigua to assess how well it might work. His work, derived from Martindale and Supernant (2009), focused on the related variables of elevation and visibility, determined to be desirable qualities for defense. These variables were initially chosen "as replicable and quantifiable metrics for assessing the defensive potential of a site, with the goal of assessing diachronically whether patterns constitute a necessary but preliminary step in the reconstruction of the social history of conflict," (2009: 202). Elevation aided a defender with the advantage of gravity, and forcing an enemy to consider an attack (Keeley et al. 2007). Visibility aided in defense by allowing defenders to see attacker approaching, and shift their resources appropriately to prepare for an attack. With a limited engagement range, landscape features which enhanced these variables could be sought out for new settlements, especially in times of strife. Gunpowder artillery and sailing vessels changes this calculus, however, by dramatically altering the range at which opponents can engage each other, and because of the unencumbered visibility of the open ocean and nature and relatively slow speeds of eighteenth century sailing vessels traveled, an enemy was visible for hours, if not days, before combining into range. Additionally, rather than relying on high walls, ideal artillery fortifications were sunk into the landscape, presenting as little of an elevation profile as possible. With these considerations, both elevation and visibility became less important in assessing defensibility in Antigua.

Accessibility, on the other hand, became a crucial variable for consideration. Originally, Martindale and Supernant (2009) defined accessibility as the degree to which attackers could reach a site out of 360°. In order to attack something, an attacker has to be able to reach it.

Since the majority of Antigua's fortifications did not have enclosed defensive structures, and the defensive batteries point almost exclusively over the sea, accessibility in this case became how close could a vessel approach Antigua's coastline and threaten the safety of the people and infrastructure on land? I also recognized that the converse is true: if an area is accessible to a sailing vessel, did the Antiguan government attempt to defend that position? As this was an assessment of external defense, accessibility became the defining concept against which the remaining variables were considered.

A final consideration for evaluation of the fortifications is a more precise evaluation of landforms in limiting cannon fire. The buffered circles around each fortification indicating range do not take into account terrain, so it can show that some fortifications appear to cover more of a firing arc than is possible. Wetherill's Battery, for instance, is one such fortification.<sup>2</sup> The physical layout demonstrates that the fortification ranges from the northwest to almost directly south, rather than offering a 360° range. The battery itself is carved into a steep hillside, with terrain blocking a clear firing path to the northeast. On other fortifications, especially guard houses, cannon were situated historically on wooden platforms with little in the way of a formal defensive structure to inhibit traversing cannons. In this case, a wider firing arc was more possible, but, given the ephemeral nature of such a site, impossible to verify precisely. Because of the wide range of possibilities, and the inability to precisely locate several fortifications destroyed by development, and the desire to remain general, so as not to overemphasize specific tactical considerations, further consideration for this was left out of the model. That being said,

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<sup>2</sup> The site was visited in 2015 during preliminary surveys and headings were taken using a compass. A formal survey with a total station was not possible in 2016 as permission was not given to do further work on the site.

there is likely room to develop a methodology which could better take this weakness into consideration.

As the only way to arrive on Antigua in the seventeenth and eighteenth centuries was by sailing vessel, the second category of environmental variables considered were related to the movement of the sea which impact the movement of sailing vessels. In this category are myriad variables such as height and strength, tides and currents, offshore breezes, onshore breezes, localized wind shadows, and variable wind directions. Several of these categories were identified while sailing around Antigua, cruising and racing, and recognizing the vast well of local knowledge that sailors possess, especially when trying to gain every slight advantage over an opponent. Each of these aspects could add layers of increasing complexity to this model, however, they provide several problems. First, even though Antigua is a relatively small place, these environmental conditions change rapidly across space and through time. For instance, while the prevailing wind blows from the east, storms far out into the Atlantic can shift the breeze to other unusual directions, blowing from the north or directly from the south. Additionally, weather events far away can still the wind altogether. Time of day also matters, with shifts in heat creating extra breezes which can blow up onto the land in the morning, and can push you away in the evening. These variables provide thick layers of context, however, detract from the generalized possibilities of the model presented here.

This model draws heavily on historical resources, gleaning data from a broad array of primary source material. The variables considered—cannon range, cannon caliber, sailing rigs, and vessel draught—all made it into this model to a certain degree. The major limitation of these variables, however, is the inconsistency of precision of data. For instance, the 1729 Fortification Return for Antigua (CO 152/18/T99), held the most complete quantifiable data of the state of

Antigua's fortifications located in this research. While invaluable in understanding the early development of Antigua's fortification network, this return only offered a single instance in a timeframe which spans more than a century. Other bits of data had to be collated from a number of different sources pulled from similar times, but did not carry the exactness of this one document. In order to compensate for this lack of precision, additional assumptions about the state of Antigua's forts were necessary, including estimating what types of cannon might be deployed, and in which fortifications they were deployed in. The lack of control over the data for these variables is helpful, however, in creating an outer limit of possibility, rather than defining some arbitrary point within a material continuum. By this, I mean that I did not attempt to correct for defective cannon in the model, and I assigned somewhat generous parameters. While this may take away from the accuracy of the model, the purpose of this project was never to create a tactical map and fulfill hypothetical scenarios. Instead, the purpose was to show the possibility, within reason, of threatened areas of the island, and diachronically investigate the human responses and actions to those vulnerabilities. In this way, I believe that the historically based assumptions made during the construction of this model are justified, as long as the purpose of the model is not pushed beyond its intended capabilities.

The final set of variables considered and ultimately rejected for this model is the human aspect. As an anthropological archaeology research project, this model creates parameters within which I analyze past human behavior. Jeremy Black (2004: 168) in his call to foster a more humanistic military and society paradigm in military history, lays out the case this way:

The role of chance, serendipity, and opportunism, as well as of stupidity and the fear of making, or of appearing to make, mistakes, should, however, be considered more often in the outcome of battles and wars: human traits, rather than military skills or equipment may be the key elements in the outcome.

Social variables considered for this model included considerations of training and preparedness as well as the tenacity of the individuals tasked with both defending the island, but also those who presented an offensive threat. These variables are difficult, if not impossible, to quantify. Tenacity is a measure of a person's experience and a consequence of their willingness to maintain a posture of defense. This is difficult to do with willing participants (e.g. see K. Armstrong 2014; Grossman 1995; Pinker 2011), but, as we have seen, Antigua's elites in times of need relied on enslaved persons to stiffen their defenses, and peeling away the levels of coercion in order to fully analyze the impact that enslavement, violence and coercion had on at the population level, let alone the at the individual level, is impossible to access given the available data. Rather than attempting to put numeric values on human behavior, I decided that these variables had to be treated outside of the model construction in order to keep the model generalized enough to make it analytically useful, but preserving and analyzing the individuals and groups of people living and working at these fortifications in a separate, qualified analysis (see Chapters 6 and 7).

The variables which were used in constructing this model, and the data sources used to inform those variables, should also be acknowledged. While the physical geography of Antigua has changed only a little (such as the channel into Parham Harbour silting up), the historical data on ordnance, and vessel types and rigs are all extrapolated from incomplete information. Cannon ranges are approximated. Eighteenth century artillery was both an art and a science, with highly trained gunners knowing the perfect mathematics, and the unique flaws in guns under their command requiring creative compensation and experience. These data on effective and extreme ranges are even further complicated due to the developments of gunpowder and changes in technology across the seventeenth and eighteenth centuries, and the sometimes-conflicting

advice offered by the master gunners who bothered to write their findings down (Caruana 1994b Vol. 2: 486-487). Even then, what is presented as an ideal, rarely met battlefield conditions, data from which offers even further complications.

Perhaps even more problematic is the data related to the seagoing vessels themselves. Some vessels were built using plans, but the majority were built by craftsmen and artisans working from cognitive templates and crude scale models. No two vessels were alike, and as complex machines, factoring in every aspect of a vessel's construction from the type of timber to the skills of the Boatwright, to the weight of the cargo, effects how deep a vessel sits in the water. In order for this model to succeed, the data had to remain general.

One final critique is that this model may accidentally “wargame” Antigua's defenses with an incomplete knowledge of historic parameters, and not necessarily reflect local tactical thinking. Antigua was never attacked after 1666, which can make this seem like an exercise in wishful thinking. However, by structuring it as a function of defense, rather than developing an attacking strategy, and by framing the argument as a function of knowledge and ability of the Antiguan Legislature, rather than attempting to find a suitable, or ideal, defense, mitigates this critique somewhat. There is always a danger of falling into “gaming” historic scenarios—there are too many uncontrollable or untestable variables, such as defender tenacity—which can lessen the effectiveness of the argument. However, as the point is to generally assess the spatial distribution of the actual fortifications, this analysis does provide insight into the decision-making processes which went into selecting and understanding these points.



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1992 "The Maritime Cultural Landscape. *The International Journal of Nautical Archaeology*. 21(1): pp. 5-14.

1994 Maritime Cultures and Ship Types: Brief Comments on the Significance of Maritime Archaeology. *The International Journal of Nautical Archaeology* 23(4): pp. 265-270.

2011a The Binary Relationship of Sea and Land." In Ford, B. (ed.) 2001a. *The Archaeology of Maritime Landscapes* pp. 291-310. Springer: New York.

2011b Conclusion: The Maritime Cultural Landscape Revisited. *The Archaeology of Maritime Landscapes*, edited by Ben Ford, pp. 331-344. Springer: New York.

Wilke, Laurie A., and Paul Farnsworth

1999 Trade and Construction of Bahamian Identity: A Multiscalar Exploration. *International Journal of Historical Archaeology* 3(4), pp. 283-320.

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Williams, Siân

2016 The Royal Navy and Caribbean Colonial Society during the Eighteenth Century. In *The Royal Navy and the British Atlantic World, c. 1750-1820*, edited by John McAleer and Christer Petley. Palgrave MacMillan: London.

Williamson, James A.



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- Willis, Sam  
 2008 *Fighting at Sea in the Eighteenth Century: The Art of Sailing Warfare*. Boydell and Brewster: London.
- Wilson, Samuel M.  
 2007 *The Archaeology of the Caribbean*. Cambridge University: Cambridge.
- Wilson, Douglas C.  
 2018 The Fort and the Village: Landscape and Identity in the Colonial Period of Fort Vancouver. In *British Forts and their Communities: Archaeological and Historical Perspectives*, edited by Christopher R. DeCorse and Zachary J.M. Beier, pp. 91-125. University Press of Florida: Gainesville.
- Wilson, Peter H.  
 2008 Defining Military Culture. *The Journal of Military History* 72(1): pp 11-41.
- Yuan, May  
 2014 Temporal GIS for Historical Research, in *Spatio-Temporal Narratives: Historical GIS and the Study of Global Trading Networks (1500-1800)*, edited by Ana Crespo Solana, pp. 45-55. Cambridge Scholars: Cambridge UK.
- Young, Robert J.C.  
 2001 *Postcolonialism: An Historical Introduction*. Blackwell: Oxford.
- Zacek, Natalie A.  
 2007 Cultivating Virtue: Samuel Martin and the Paternal Ideal in the Eighteenth-Century English West Indies. *Wadabajei* 10(3): pp. 8-31.  
 2008 Class Struggles in a West Indian Plantation Society, in *Class Matters: Early North America and the Atlantic World*, edited by Simon Middleton, and Billy Gordon Smith, pp. 62-75. University of Pennsylvania: Philadelphia.  
 2009 Rituals of Rulership: The Material Culture of West Indian Politics, in *Material Culture in Anglo-America: Regional Identity and Urbanity in the Tidewater, Lowcountry, and Caribbean*, edited by David S. Shields, pp. 115-126. The University of South Carolina Columbia.  
 2010 *Settler Society in the English Leeward Islands, 1670-1776*. Cambridge University: Cambridge.
- Zahedieh, Naula  
 1986 Trade, Plunder, and Economic Development in Early English Jamaica, 1655-89. *The Economic History Review, New Series* 39(2) pp. 205-222.  
 2010 *The Capital and the Colonies: London and the Atlantic Economy, 1660-1700*. Cambridge University: Cambridge.

# Christopher K. Waters PhD

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## APPOINTMENTS

<b>Postdoctoral Fellow for World Heritage Management</b> National Parks Authority of Antigua and Barbuda UNESCO World Heritage Site Antigua Naval Dockyard and Related Archaeological Sites	January 2019 English Harbour, Antigua
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## EDUCATION

<b>Ph.D., Distinction: Anthropology</b> Syracuse University Dissertation title: <i>Putting Forts in their Place: The Politics of Defense in Antigua, 1670-1785</i>	November 2018 Syracuse, NY
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<b>Certificate of Advanced Studies</b> Syracuse University	June 2015 Syracuse, NY
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<b>M.A. Merit: Archaeology (2012)</b> University of Bristol Dissertation title: <i>Forts of Folly: Caribbean Defenses of the Lesser Antilles in the Seventeenth Century</i>	December 2012 Bristol, UK
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<b>B.A. History and Archaeology</b> St. Olaf College	May 2010 Northfield, MN
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## PUBLICATIONS

### Articles and Chapters

**Waters, C.K.** “Indefensible Landscapes: Power Dynamics, Social Relations, and Antigua’s Eighteenth-Century Fortifications.” In DeCorse, C.R. (ed.) *Power, Political Economy and Historical Landscapes of the Modern World: Interdisciplinary Perspectives*. Albany: SUNY University Press. (March 2019)

**Waters, C.K.** “Beyond the Plantation: the Codrington’s, Betty’s Hope and the Defense of Antigua, 1670-1714”. In Fox, G.L. (ed.) *Plowing Paradise: The Historical Archaeology of Betty’s Hope Plantation, Antigua*. Gainesville: University of Florida Press. (Under Review)

**Waters, C.K.** 2018. *When the King’s Last Argument is but a Whimper: Artillery Deployment in Antigua’s Colonial Fortifications*. New Perspectives on the ‘Last Argument of Kings’: A Ticonderoga Seminar on 18<sup>th</sup>-Century Artillery. Fort Ticonderoga. 6 August, 2017, pp. 120-131.

Wells, E.C., **Waters, C. K.**, Tricarico, A.R. and Fox, G.L. 2017. "Agroindustrial Soilscales in the Caribbean: A Geochemical Perspective from Betty's Hope, Antigua." *Environmental Archaeology* 22(4): 381-393.

### **Manuscripts in Preparation**

**Waters, C.K.** and Tricarico, A.R. "Sociospaciality of the Codrington Plantations in Antigua." Prepared for *Historical Archaeology*.

**Waters, C.K.** and Prosper, J. "Capital Punishment and Enslavement in Antigua, 1693-1834." Prepared for *Journal of Caribbean History*.

**Waters, C.K.** "Revisiting pre-Emancipation Demographics in Antigua." Prepared for *Slavery & Abolition*.

**Waters, C.K.**, and Nowakowski, J. "Soldier's Lives, Soldier's Survive: Bone Disc Production at Monk's Hill, Antigua." Prepared for *Post-Medieval Archaeology*.

### **Book Reviews**

**Waters, C.K.** 2018. *Frontiers of Colonialism* edited by Christine D. Beaulé. *Historical Archaeology* 52(3), 637-638.

**Waters, C.** 2008. *Responsibility* edited by Barbra Darling-Smith. *Religious Studies Review* 34(1): pp. 36.

### **Newsletter Contributions**

**Waters, C.K.** 2017. "The Tale of the Lyon. *HAS Newsletter: April, May, June 2017*: No. 137. Pp. 4-5.

**Waters, C.K.**, Tricarico, A, Gardner, D., and Parr, M. 2016. "Excavation Report for Great Fort George, Monk's Hill: Antigua Archaeological Field School 2016." *HAS Newsletter* Serialized in 3 parts, *July, September, August Edition*, no. 134 pp. 1-5; *October, November, December Edition* no. 135 pp. 1-5; no. *January, February, March Edition* 136 pp. 3-4.

**Waters, C.K.** 2016. "Breaking History out of Prison." *HAS Newsletter: January, February, March Edition*. No. 132. Pp. 13-14.

### **Unpublished Reports**

**Waters, C.K.** 2018. *Preliminary Report and Archaeological Research Proposal for the Tank Bay Shipwreck*. For the Heritage Department, National Parks of Antigua and Barbuda.

**Waters, C.K.** 2017 *Field Report, Indian Creek (PA-04)*. For the Heritage Department, National Parks of Antigua and Barbuda.

**Waters, C.K.** and Gardner, D. 2017. *Mill Reef Survey, 2017*. Submitted to the Heritage Department, National Parks of Antigua and Barbuda, and to the Mill Reef Club, Antigua.

**Waters, C.K.**, Tricarico, A, Gardner, D., and Parr, M. 2016. *Excavation Report for Great Fort George, Monk's Hill: Antigua Archaeological Field School 2016*. 30 September 2016. Submitted to the Heritage Department, National Parks of Antigua and Barbuda.

**Waters, C.K.** 2016. *Proposed Schedule of Work for Morris Bay, Antigua (MAH-007)*. Desk Based Assessment of the Morris Bay Site, Submitted to the National Parks of Antigua, 19 July 2016.

**Waters, C.K.**, Brown, M., Murphy, R. 2016. *Preliminary Report on the Cultural Heritage of Redonda*. 7 July 2016. Submitted to the Steering Committee of the Redonda Restoration Project.

de Mille, C., Cripps, D., **Waters, C.K.** 2016. *Heritage Resources Impact Assessment Blue Diamond Deep Bay Resort: Final Report*. Report submitted March 2016.

Murphy, R., **Waters, C.**, Brown, M., Look, C., Friedman, E. 2015. *Great Fort George, Monks Hill Antigua: An Archaeological Survey*. A report prepared by the National Parks of Antigua and Barbuda for the Spanish Government. Submitted August 2015.

**Waters, C.K.** 2015 *Fort Survey Report, Antigua Summer 2014*. National Parks of Antigua and Barbuda. Submitted June 2015.

**Waters, C.K.** 2013. *Indian Creek Excavation Report, Antigua Summer 2013*. National Parks of Antigua and Barbuda.

**Waters, C.K.** and Wareing, S. 2012. *Rockby Physical and Geophysical Survey Report, Friends of Purton*. Friends of Purton, Purton, United Kingdom.

**Waters, C.K.** 2012. "Cost of Education," *International Educator*. November-December Issue.

## INVITED LECTURES AND CONFERENCES

### Invited Lecture

*Stewardship: Ethics in Archaeology and Heritage*. MUS 622 Introduction to Museum Studies, Syracuse University, 12 November 2017.

*Stewardship: Ethics in Archaeology and Heritage*. MUS 622 Introduction to Museum Studies, Syracuse University, 13 November 2017.

*When the King's Last Argument is but a Whimper: Artillery Deployment in Antigua's Colonial Fortifications*. New Perspectives on the 'Last Argument of Kings': A Ticonderoga Seminar on 18<sup>th</sup>-Century Artillery. Fort Ticonderoga. 6 August, 2017.

*The Indefensible: Power Dynamics, Social Relations, and Antigua's 18<sup>th</sup> Century Defense Landscape*. Power, Political Economy and Historical Landscapes of the Modern World:

Interdisciplinary Perspectives: The Fernand Braudel Center for the Study of Economics, Historical Systems, and Civilizations. 29 April 2017.

*In Defense of the Colony: The Politics and Social Pragmatism of Antigua's Fortification Network, 1672-1783.* Perspectives in Anthropology and Archaeology, Cazenovia College. 29 March 2017.

*Small/Special Finds.* ANT 444/644 Laboratory Analysis Guest Speaker. Syracuse University, 29 November 2016.

*Historical Archaeology and Antigua's Defense Network, 1680-1815.* Antigua Archaeological Field School. 15 June 2016, English Harbour, Antigua.

*Changing the Face of Seneca Falls: The Mechanics of Land Seizure in 1915.* Van Cleef Lake Centennial Celebration Committee Panel Discussion, 10 August 2015, Seneca Fall, NY.

*Starting with a Question: Building an Archaeological Project from the Ground Up.* Guest Lecture: Anthropology 442 Archaeological Methods, Dr. Theresa Singleton, Syracuse University, 3 November 2015, Syracuse, New York.

### **Conference Presentations**

**Waters, C.** and Tricarico, A. "Socio-Spatiality of an Antiguan Plantation." Presented at the Society of American Archaeologists on 13 March 2018, Washington D.C.

**Waters, C.** "Protecting 'The Fronteers': the Defensibility of Antigua's Colonial Fortification Network." Presented at the International Association of Caribbean Archaeologists on 28 July 2017, St. Croix.

**Waters, C.** "Questioning assumptions about lived military existence or who manned the forts of Antigua?" Presented at the American Anthropological Association Annual Meeting, 16 November 2016, Minneapolis, Minnesota.

**Waters, C.,** Wells, E.C., and Fox, G.L. "Geochemical Analysis of Soil Surfaces at Betty's Hope Plantation, Antigua." Presented at the International Association of Caribbean Archaeologists on 24 July 2015, Saint Marten.

Wells, E.C., **Waters, C.** and Fox, G.L. "Integrated Anthrosol Prospection at Betty's Hope Sugarcane Plantation, Antigua, British West Indies." Presented at the Society for American Archaeology Annual Conference, 17 April 2014, San Francisco, California.

**Waters, C.** "The Landscape of Fear on the Edge of the World: Small Island Life on Antigua 1667-1815". Presented at Society for Historical Archaeology Annual Conference, 8 January 2014, Seattle, Washington.

**Waters, C.** "The Brick Circles of Antigua." Presented at the International Association of Caribbean Archaeologists on 26 July 2013, San Juan, Puerto Rico.

Bartz, F., Hienen, J. Klahre, N. Kose, E., Sachs, S., Takato, S., **Waters, C.**, and Zwissler, E. “Shaking History II”. Presented at Portico Conference 9 April 2011, Cologne, Germany.

Bartz, F., Hienen, J. Klahre, N. Kose, E., Sachs, S., Takato, S., **Waters, C.**, and Zwissler, E. “Shaking History”. Presented at Portico Conference 25 November 2010, Gent, Belgium.

**Waters, C.** “Redefining Law: Taking the System Out of Republican Roman Law.” Presented at the Pi Alpha Theta Regional Conference 13 April 2010, Park University, Kansas City.

## GRANTS AND AWARDS

Outstanding Teaching Assistant Award, Syracuse University	Spring 2018
Travel Grant: Department of Anthropology, Syracuse University: \$211	Spring 2017
Travel Grant: Department of Anthropology, Syracuse University: \$500	Fall 2016
Associate Researcher Position, National Parks Authority of Antigua and Barbuda: Material Support, including vehicle and research space	Spring 2016
Roscoe-Martin Graduate Research Grant, Syracuse University: \$915	Fall 2016
Maxwell Dean’s Summer Fellowship, Syracuse University: \$3,840	Spring 2015
Moynihan European Research Center Summer Research Award, Syracuse University: \$700	Spring 2015
Roscoe-Martin Graduate Research Grant, Syracuse University: \$500	Spring 2015
Travel Grant: Department of Anthropology, Syracuse University: \$500	Fall 2015
Maxwell Dean’s Summer Fellowship, Syracuse University: \$3,800	Spring 2014
Maxwell School Summer Fellowship for Graduate Assistants, Syracuse University: \$700	Spring 2014
Moynihan Institute Program for Latin America and the Caribbean Summer Research Award, Syracuse University: \$1,400	Spring 2014
Graduate Student Association Research Grant, Syracuse University: \$200	Spring 2014
Best Paper in Presentation Group. Pi Alpha Theta Regional Conference, Park University, Kansas City, Missouri.	Spring 2010
Established Leadership Award, St Olaf College, Northfield, Minnesota.	Spring 2010
Travel Award, St. Olaf College: \$500	Spring 2010

## Translations (German to English)

Translation of Max Weber 1919 “Zum Thema der Kriegsschuld” Frankfurter Zeitung. 17 January 1919. (In Preperation).

Translation of Abstract and Dust Cover material for Mirko Geisendorf [Forthcoming] *Der eisenzeitliche Festplatz von Schwerte-Wandhofen (Kreis Una)*. Deutsche Gesellschaft für Ur-und Frühgeschichte. 2018

Translation consultant on Max Weber’s *Politics as Vocation*, acknowledged and published in Tony Waters and Dagmar Waters (2015) *Weber’s Rationalism and Modern Society: New Translations on Politics, Bureaucracy, and Social Stratification*, 2012.

Signage for the *Praetorium*, Archäologische Zone, City of Cologne. 2011.

## TEACHING EXPERIENCE

### Syracuse University

#### *Certifications*

- Certificate in University Teaching Fall 2017

#### *Courses Instructor and Designer*

Global Encounters Fall 2018

- Introductory anthropology lecture class with 200 students
- Writing intensive

Global Encounters Fall 2018

- Introductory anthropology survey course with 25 students
- Writing intensive

Sunken Cities and Hidden Treasure: Introduction to Underwater Archaeology Fall 2017

- Archaeology survey course with 33 students

Independent Study: Introduction to Underwater Archaeology Fall 2017

- Directed independent study

#### *Teaching Assistant*

Oral Communication in Teaching Fall 2018

- Graduate level English language lab focusing on teaching at an American University

Introduction to Historical Archaeology Spring 2017

- Introductory archaeology discussion sections with 25 students
- Lead the Renee Crown Honors College section

Archaeology at the Movies, Syracuse University Fall 2017

- Upper division archaeology course

Archaeology and Prehistory Fall 2015

- Introductory archaeology discussion sections with 25 students

Biological Anthropology Spring 2014

- Introductory archaeology discussion sections with 25 students

Archaeology and Prehistory Fall 2014

- Introductory archaeology discussion sections with 25 students

Introduction to Historical Archaeology Spring 2013

- Introductory archaeology discussion sections with 25 students
- Lead the Renee Crown Honors College section

People and Cultures of the World Fall 2013

- Introductory cultural anthropology discussion sections with 25 students

#### *Additional Teaching Experience*

- First Year Experience, Lead Facilitator Fall 2018

### California State University at Chico

#### Field Director

- ANTH 280/380/480 Antigua Archaeological Field School Summer 2017

- ANTH 280/380/480 Antigua Archaeological Field School Summer 2016
- ANTH 280/380/480 Bettys Hope Archaeological Field School Summer 2015

Teaching Assistant

- ANTH 280/380/480 Bettys Hope Archaeological Field School Summer 2014
- ANTH 280/380/480 Bettys Hope Archaeological Field School Summer 2012

**EDUCATIONAL AND PROFESSIONAL EXPERIENCE**

**Principle Investigator** 2015-Present  
 Antigua Forts Project, Antigua

**Co-Principle Investigator** 2017-Present  
 Indian Creek Archaeological Project, Antigua

**Archaeology Coordinator** 2016-Present  
 Redonda Restoration Programme, Antigua

**Museum of Antigua** 2016-Present  
 Museum Board Member, Antigua

**Teaching Assistant/Research Assistant** 2012-2015  
 Betty’s Hope Archaeology Project, Antigua

**Museum Curator and Heritage Specialist** 2012-2013  
 National Parks Authority of Antigua and Barbuda, Antigua

**Archaeological Technician** 2010-2011  
 Archäologische Zone, Cologne, Germany

**Fieldwork**

Caribbean: Directed fieldwork on Archaic, Ceramic, and Historic Period Sites in Antigua and Redonda.

Europe: Field experience in remote sensing in the UK and urban archaeology in Cologne, Germany.

Africa: Field experience in Tanzania.

North America: Field experience in Northern California.

**Media**

2015 Cast Member, “Betty’s Hope.” Produced by the Advanced Laboratory for Visual Anthropology, California State University, Chico.

**PROFESSIONAL DEVELOPMENT AND SERVICE**

**Mentoring**

Faculty Instructor to Teaching Assistants Fall 2018

- Mentored four graduate Teaching Assistants, three undergraduate



## Teaching Assistants and one Peer Facilitator

- Teaching Mentor 2017-2018
- Designed, organized and led pedagogy workshops for new Teaching Assistants at Syracuse University

### Education and Pedagogy Development

- 2018 Waters, C. and McWhorter, C. *Constructing an Electronic Teaching Portfolio*. Future Professoriate Program. The Graduate School, Syracuse University. 2 February 2018.
- 2018 McWhorter, C. Zhang, Y. and Waters, C. *Constructing a Teaching Portfolio*. Certificate in University Teaching Program, The Graduate School, Syracuse University. 24 January 2018.
- 2018 Waters, C., Spring Semester All University Teaching Assistant Training Small Group Sessions Leader and Microteaching Critique. The Graduate School. Syracuse University. 12 January 2018.
- 2017 Waters, C., Waymouth, H. and Zhang, Y. *Writing a Teaching Philosophy*. Certificate in University Teaching Program, The Graduate School, Syracuse University. 17 November 2017.
- 2017 Soto, K., and Waters, C. *Effective Assessment Strategies*. Teaching Assistant Training Concurrent Session, The Graduate School, Syracuse University. 16 August 2017.

### Professional Service

- Maxwell Dean Student Advisory Committee 2017-2018
- Excellence in Graduate Education Selection Committee, The Graduate School, Syracuse University (2018)
- Teaching Mentor, The Graduate School, Syracuse University (2017)
- Anthropology Graduate Student Organization Faculty Liaison (2017)
- Graduate Representative to the Graduate Committee, Department of Anthropology, Syracuse University (2017)
- Historical and Archaeological Society of Antigua and Barbuda: Appointed Member of the Board of Directors (January 2016-Present)
- Historical and Archaeological Society of Antigua and Barbuda: Appointed Member of the Board of Directors (October 2012-August 2013)

### ADDITIONAL INFORMATION

#### Relevant Volunteer Work

- 2018 Homer Junior High School Career Day. Cortland BOCES: 27 May 2018.
- 2017 Homer Junior High School Career Day. Cortland BOCES: 31 May 2017.
- 2016 9<sup>th</sup> Grade Career Fair, Corcoran High School, Syracuse University: 14 November 2016.
- 2013-present Board Member, Museum of Antigua and Barbuda
- 2015-2016 Erie Canal Museum/Seneca Falls Van Cleef Lake Centennial Researcher, Syracuse, New York.

2012 Friends of Purton Hulk Surveying, Purton, Gloucester, United Kingdom.

**Professional Memberships**

Society for Historical Archaeology

International Association of Caribbean Archaeologists

Historical and Archaeological Society of Antigua and Barbuda

American Anthropological Association

The Heritage Education Network

Friends of the Archives, Antigua National Archives

## REFERENCES

**Dr. Christopher R. DeCorse, Doctoral Advisor**

Professor, Department of Anthropology  
Maxwell School of Citizenship and Public Affairs, Syracuse University  
207 Maxwell Hall  
Syracuse, NY  
13244-1020  
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**Dr. Douglas V. Armstrong, Doctoral Committee Member**

Chair, Department of Anthropology  
Maxwell School of Citizenship and Public Affairs, Syracuse University  
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13244-1020  
[dvarmstr@maxwell.syr.edu](mailto:dvarmstr@maxwell.syr.edu)  
(315) 443-2405

**Dr. Emily Stokes-Rees, CAS in Cultural Heritage Management Advisor**

Program Coordinator, Museum Studies, Syracuse University  
School of Design  
The Nancy Cantor Warehouse  
350 West Fayette Street  
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[ewstokes@syr.edu](mailto:ewstokes@syr.edu)  
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**Dr. Georgia L. Fox, Mentor**

California State University at Chico  
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400 W. First Street  
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[gfox@csuchico.edu](mailto:gfox@csuchico.edu)  
(530) 898-5583

**Dr. A. Reginald Murphy**

Director of Heritage  
National Parks Authority of Antigua and Barbuda  
Nelson's Dockyard, English Harbour  
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[regmurphyantigua@gmail.com](mailto:regmurphyantigua@gmail.com)  
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Additional references upon request.